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# Mitigation Monitoring, Compliance, and Reporting Program

San Diego Gas & Electric - East County Substation Project  
(PTC Application No. A.09-08-003) (Decision Dxx-xx-xxx)



DECEMBER 2012

PREPARED FOR:

**California Public Utilities Commission**  
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EAST COUNTY SUBSTATION PROJECT  
Mitigation Monitoring, Compliance, and Reporting Program**

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DECEMBER 2012





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- C Sample Site Inspection Form
- D List of Mitigation Measures by Time of Implementation
- E Minor Project Refinement Request Form - CPUC
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## ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ACOE	U.S. Army Corps of Engineers
APM	applicant proposed measure
BA	Biological Assessment
BLM	Bureau of Land Management
BO	Biological Opinion
CAL FIRE	California Department of Forestry and Fire Protection
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CPUC	California Public Utilities Commission
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
ECL	Environmental Compliance Lead
ECO	East County
EIR/EIS	environmental impact report/environmental impact statement
EM	environmental monitor
EPM	Environmental Project Manager
ESA	environmental site assessment
FEIR/FEIS	Final Environmental Impact Report/Environmental Impact Statement
FESA	Federal Endangered Species Act
FPP	Fire Protection Plan
kV	Kilovolt
LEI	Lead Environmental Inspector
LEM	Lead Environmental Monitor
LRA	local responsibility areas
MMCRP	Mitigation Monitoring, Compliance, and Reporting Program
MOA	Memorandum of Agreement
NCR	Non-Compliance Report
NEPA	National Environmental Policy Act
NPPA	Native Plant Protection Act
NTP	Notice-to-Proceed
PM	Project Manager
PM <sub>10</sub>	particulate matter less than 10 microns
PTC	Permit to Construct
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
RWQCB7	Regional Water Quality Control Board, Region 7

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## ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
SDCFA	San Diego County Fire Authority
SDG&E	San Diego Gas & Electric
SDRFPD	San Diego Rural Fire Protection District
SRA	state responsibility areas
SWEAP	Safe Worker and Environmental Awareness Program
SWPL	Southwest Powerlink
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
U.S.C.	Unites States Code
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

# **East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program**

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## **1.0 INTRODUCTION**

The Final Environmental Impact Report/Environmental Impact Statement (FEIR/FEIS) for the East County (ECO) Substation Project, as adopted by the California Public Utilities Commission (CPUC) on April 19, 2012 (Decision 12-04-022), includes procedures for preparing and implementing a Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) to ensure compliance with mitigation measures approved in the FEIR/FEIS, as well as with the terms and conditions associated with the Bureau of Land Management (BLM) Right-of-Way (ROW) Grant. The CPUC is the lead agency under the California Environmental Quality Act (CEQA). The CPUC issued a Permit to Construct on June 21, 2012. The lead agency under the National Environmental Policy Act (NEPA) is the Bureau of Land Management, which issued a Record of Decision approving the project on August 21, 2012 (Attachment H).

Section H, Mitigation Monitoring and Reporting, of the FEIR/FEIS provides the recommended framework for the implementation of the MMCRP by the CEQA lead agency, the CPUC, and describes the roles and responsibilities of government agencies in implementing and enforcing adopted mitigation measures. This MMCRP includes the information provided in FEIR/FEIS Section H, as well as specific protocols to be followed prior to and during construction by CPUC/BLM third-party environmental monitors (EMs) and San Diego Gas & Electric Company (SDG&E) project staff. Long-term monitoring during operations and maintenance will be addressed through consultation and planning with the appropriate resource agencies.

The project's MMCRP includes direct participation and commitment from SDG&E, BLM and CPUC/BLM EMs. The success of the program depends on the project management staff, monitors, and construction contractor personnel. Therefore, the goal of the MMCRP is to provide a clear understanding of the project's organization, establish lines of communication, and effectively document and report compliance with all of the mitigation measures.

The MMCRP was developed to provide guidelines and standardize procedures for environmental compliance on the project. The procedures have been developed in coordination with SDG&E, BLM, CPUC, and CPUC/BLM EMs to help define the reporting relationships, provide detailed information about the roles and responsibilities of the project's Environmental Project Management Team members, define compliance reporting procedures, and to establish a communication protocol. The communication lists in the MMCRP will be updated throughout construction.

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## **1.1 Authority for the Mitigation Monitoring, Compliance, and Reporting Program**

Mitigation monitoring is required through both CEQA and NEPA. Section 21081.6 of the California Public Resources Code requires a public agency, such as the CPUC, to adopt an MMCRP when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies significant adverse environmental effects. CEQA Guidelines, Section 15097, was added in 1999 to further clarify agency requirements for mitigation monitoring or reporting.

The Council on Environmental Quality (CEQ) has established regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500–1508). NEPA requires mitigation monitoring in 40 CFR 1505.2(c), with additional specificity provided in the BLM NEPA Handbook (H-1790-1), Chapter 10 (Monitoring). BLM also served as the lead federal agency for Section 7 consultation under the Endangered Species Act, Section 106 consultation under the National Historic Preservation Act, and is responsible for conducting tribal consultation. BLM is responsible for ensuring that mitigation measures adopted in its Record of Decision for the project are implemented and other terms and conditions associated with the ROW grant are adhered to on BLM land. The goal of the MMCRP is to prevent problems and to facilitate timely, comprehensive communication.

The CPUC and BLM views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC, BLM and any monitors it may designate.

## **1.2 Agencies with Jurisdiction**

In addition to the CPUC, BLM and many other local, state, and federal agencies have jurisdiction over lands or resources within the project limits. Table 1 lists jurisdictional agencies associated with the project. The CPUC and BLM, as the lead agencies, are responsible for ensuring that all mitigation measures are implemented throughout construction and operation, and the CPUC/BLM EMs will verify SDG&E's compliance with conditions of permits issued by other agencies. Jurisdictional agencies' designated representatives may visit construction areas at any reasonable and safe time, and may require information regarding the status of compliance with particular permit conditions. SDG&E is responsible for satisfying requests from jurisdictional agencies and will notify and copy the CPUC and BLM on all correspondence related to final approvals and verifications for the project if not otherwise copied on the correspondence. Additional information on communication protocols is presented in Section 3.0. Long-term monitoring during operation and maintenance of the project will be addressed through consultation and planning with the appropriate resource agencies.



## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 1**  
**Jurisdictional Agencies Associated with the East County Substation Project**

Agency	Address	Contact Person	Phone Number	Email
<i>Lead Agencies</i>				
California Public Utilities Commission	505 Van Ness Ave, Fourth Floor San Francisco, CA 94102	Amy Baker	415.703.1691	amy.baker@cpuc.ca.gov
Bureau of Land Management	El Centro Field Office 1661 South Fourth Street El Centro, CA 92243	Brian Paul	760.337.4400	rpaul@blm.govrpaul
<i>Federal Agencies</i>				
U.S. Fish and Wildlife Service	6010 Hidden Valley Road, Suite 101 Carlsbad, CA 92011	Jesse Bennett	760.431.9440	Jesse_bennett@fws.gov
U.S. Army Corps of Engineers	6010 Hidden Valley Road, Suite 105 Carlsbad, CA 92011	Shanti Santulli	760.602.4834	shanti.a.santulli@usace.army.mil
Federal Aviation Administration	Western-Pacific Regional Office Air Traffic Division, AWP-520 15000 Aviation Boulevard Hawthorne, CA 92060	General Contact	310.725.6557	N/A
U.S. Customs and Border Patrol	N/A	Jason Bush	619.766.3056	jason.r.bush@dhs.gov
<i>State Agencies</i>				
California Department of Fish and Game	South Coast Region 4949 Viewridge Avenue San Diego, CA 92123	Eric Weiss	858.467.4201	eweiss@dfg.ca.gov
California Department of Transportation	4050 Taylor Street San Diego, CA 92110	Jacob Armstrong	619.688.6960	Jacob.Armstrong@dot.ca.gov
California Department of Toxic Substances Control	PO Box 806 Sacramento, CA 95812-0806	General Contact/TBD	800.728.6942	webcoord@dtsc.ca.gov
State Historic Preservation Office	1416 Ninth Street, #1442-7 Sacramento, CA 95814	Carol Roland-Nawi	916.445.7050	calshpo@parks.ca.gov
California Air Resources Board	1001 "I" Street PO Box 2815 Sacramento, CA 95812	General Contact/TBD	800.242.4450 916.322.3260	webmaster@arb.ca.gov
Regional Water Quality Control Board, Region 7 (Colorado River)	73-720 Fred Waring Drive, Suite 100 Palm Desert, CA 92260	Jay Mirpour	760.776.8961	JMirpour@waterboards.ca.gov

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**Table 1  
Jurisdictional Agencies Associated with the East County Substation Project**

Agency	Address	Contact Person	Phone Number	Email
California Department of Forestry and Fire Protection (CALFIRE)	2249 Jamacha Road El Cajon, CA 92019	Jim Garrett	619.517.1511	Jim.garrett@fire.ca.gov
<i>Local Agencies</i>				
County of San Diego	5201 Ruffin Road, Suite B San Diego, CA 92123	Ken Brazell	858.694.2728 858.204.9133	Kenneth.Brazell@sdcounty.ca.gov
San Diego County Air Pollution Control District	10124 Old Grove Road San Diego, CA 92131	Gary Harnett	858.586.2671	Gary.Harnett@sdcounty.ca.gov
San Diego Rural Fire Districts	14024 Peaceful Valley Ranch Road Jamul, CA 91935	Dave Nissen	619.669.1188	dave.nissen@fire.ca.gov

## 1.3 Project Description

### 1.3.1 Project Overview

The CPUC granted a Permit to Construct (PTC) and the BLM issued a ROW grant for the ECO Substation Project, as defined in the CPUC’s Decision. The proposed ECO Substation Project provides an interconnection hub for renewable energy generation along SDG&E’s existing Southwest Powerlink (SWPL) 500-kilovolt (kV) transmission line. In addition to accommodating the region’s planned renewable generation, the project provides a second source for the southeastern 69 kV transmission system that avoids the vulnerability of common structure outages, which would increase the reliability of electrical service for Boulevard, Jacumba, and surrounding communities. The ECO Substation Project would provide interconnection capability at three voltage levels, which would provide renewable generators the option to connect at a voltage level that is appropriately sized for their project.

Project facilities can be divided into the following four major components:

1. **ECO 500/230/138 kV Substation.** The project would require construction of a new substation (a 500 kV yard and a 230/138 kV yard) on privately owned, undeveloped land in southeastern San Diego County. The ECO Substation would include two separate fenced yards as well as a new access road. This project component would also include one retention basin and a buffer of approximately 20 feet around substation pad fencing.
2. **SWPL Loop-In to the ECO Substation.** A short loop to connect the existing 500 kV SWPL into the new ECO Substation would be constructed in the same general location as the

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ECO Substation. The loop would begin at the existing SWPL and traverse approximately 3,065 feet south to the new ECO Substation. The SWPL loop-in would remove one existing tower and install six new steel towers with a maximum height of 125 feet. An existing dirt road would be improved to provide access to the substation.

3. **138 kV Transmission Line.** A new approximately 14-mile 138 kV transmission line between the proposed ECO Substation and the rebuilt Boulevard Substation would be built to connect these two substations. As shown in Figures 1 through 3 of Attachment A, the 138 kV transmission line would include both overhead and underground components. Four steel cable riser poles, approximately 150 feet tall, would be installed. In addition, the new transmission line would require an approximately 60- to 100-foot-wide permanent ROW.
4. **Boulevard Substation Rebuild.** The rebuilt substation would provide 138 and 69 kV facilities to accommodate the proposed transmission line and gen-tie interconnections and 12 kV facilities to service the surrounding area. Once the rebuilt substation is constructed and energized, the existing substation would be demolished. One residence and eight structures on the rebuild site would be removed. In addition, this project component would include the construction of a new 25-foot-wide, 190-foot-long asphalt-paved access road off of Old Highway 80.

### **Schedule**

Project-related construction activities will not begin until pre-construction mitigation measures and submittals have been satisfied. Once pre-construction mitigation measures have been satisfied, the CPUC will issue a Notice-to-Proceed (NTP), indicating that construction can commence on the ROW. The NTP may include CPUC or other agency conditions or requirements that must be satisfied prior to the start of work or during construction. In some cases, it may be appropriate to issue segment- or component-specific NTPs when pre-construction mitigation measures have been completed for one segment or component and not another. Section 6.2 lists the mitigation measures, the timing for completion, and whether CPUC review or approval is required before construction on the ROW can commence. A map of the construction segments is provided in Attachment A. Table 2 shows the estimated construction schedule by activity.

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**Table 2  
Estimated Construction Schedule**

Project Component	Activity	Approximate Duration (Months)
ECO Substation 500 kV and 230/138 kV Yards	Site Development	8
	Below-Grade Construction	8
	Above-Grade Construction	8
	Communication Equipment	1
	Testing and Commissioning	2
	Energization	0.5
SWPL Loop-In	Access Roads	0.5
	Install Foundations	1
	Tower Installation and Conductor Stringing	0.5
138 kV Transmissions Line	Access Roads / Vault Installation	6
	Pole Foundation Installation	4
	Pole Installation / Cable Pulling and Splicing	3
	Conductor Stringing and Sagging / Testing	3
Boulevard Substation Rebuild	Site Development	4
	Below-Grade Construction	3
	Above-Grade Construction	3
	Testing and Commissioning	2
	Energization	0.5
	Existing Substation Demolition	2

### 1.3.2 Construction Components

A map of the construction components is provided in Attachment A. The project construction components and anticipated start dates are shown in Table 3.

**Table 3  
Construction Components**

Project Component	Activity	Start Date
ECO Substation 500 kV and 230/138 kV Yards	Site Development	1/1/13
	Below-Grade Construction	05/02/13
	Above-Grade Construction	08/29/13
	Communication Equipment	11/19/13
	Testing and Commissioning	02/31/14
	Energization	04/03/14
SWPL Loop-In	Access Roads	08/01/13
	Install Foundations	10/15/13
	Tower Installation and Conductor Stringing	11/13/13

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**Table 3  
Construction Components**

Project Component	Activity	Start Date
138 kV Transmissions Line	Access Roads / Vault Installation	01/16/13
	Pole Foundation Installation	03/18/13
	Pole Installation / Cable Pulling and Splicing	06/28/13
	Conductor Stringing and Sagging / Testing	08/20/13
Boulevard Substation Rebuild	Site Development	02/04/13
	Below-Grade Construction	04/28/13
	Above-Grade Construction	07/17/13
	Testing and Commissioning	01/17/14
	Energization	02/06/14
	Existing Substation Demolition	02/07/14

The mitigation measures listed in Section 6.3 include the location in which the mitigation measure applies. In general, the mitigation measures are applicable to all project areas; however, certain biological and other resource protection measures are component specific. SDG&E will work closely with contractor staff to ensure that site-specific mitigation measures are clearly identified.

### **1.3.3 Project Authorizations by Lead, Responsible, and Cooperating Agencies**

This plan is intended to provide pertinent information necessary to successfully implement the MMCRP during construction. The mitigation measures and applicant proposed measures (APMs) listed in Sections 6.2 and 6.3 are presented in Sections D.2 through D.18 of the FEIR/FEIS. These sections also present discussions that explain the intent of each mitigation measure and the potential impacts that could result if the mitigation measures are not implemented properly. In addition to complying with the adopted mitigation measures, construction activities must be conducted in accordance with the requirements of a wide range of additional authorizations, as listed below.

#### **Lead Agencies – CPUC and BLM**

- CPUC PTC (issued on June 21, 2012)
- BLM Record of Decision (issued on August 21, 2012), Field Work Authorization for cultural resource monitoring on BLM land, ROW Grant, NTP

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## **Federal Agencies**

- U.S. Fish and Wildlife Service (USFWS) Consultation per Section 7 of the Endangered Species Act, Biological Opinion (issued September 1, 2011)
- U.S. Army Corps of Engineers (ACOE) Individual/Nationwide Section 404 Permit – Dredge and fill of jurisdictional waters of the U.S.
- U.S. Department of Transportation, Federal Highway Administration Encroachment Permits, review of obstruction and objects affecting airspace
- Federal Aviation Administration Helicopter Lift Plan, Form 7460-1.

## **State Agencies**

- California Independent System Operator: Interconnection Approval
- California Department of Fish and Game (CDFG): Lake or Streambed Alteration Agreement (California Fish and Game Code, Sections 1600–1616)
- CPUC: Permit to Construct, MMCRP, Certification of EIR, Recorded Conservation Easements
- State Water Resources Control Board (SWRCB): Stormwater Construction General Permit 99-08 DWQ (issued by the SWRCB, then separately issued by the Regional Water Quality Control Board [RWQCB])
- RWQCB, Region 7 (Colorado River Basin): Clean Water Act Section 401 Water Quality Certification
- California Department of Transportation: Encroachment Permits; Traffic Control Plans
- California Department of Toxic Substances Control: EPA Hazardous Waste Generator ID
- California State Historic Preservation Office: Concurrence with BLM determination of effect; Signatory to the Memorandum of Agreement (MOA) for the project issued by the Advisory Council on Historic Preservation (see Appendix B of Attachment H: U.S. Bureau of Land Management Record of Decision)
- California Air Resources Board: Portable Engine Registration for specified non-mobile portable engines

## **Local Agencies**

- San Diego County: Road/Highway Encroachment/Crossing Permit/Review; Grading and Wall Permit/Review; Traffic Control Plans; Explosives Permit

# **East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program**

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## **2.0 ROLES AND RESPONSIBILITIES**

This section describes the roles and responsibilities of key project personnel with respect to the MMCRP.

Figure 1 provides an organizational chart of SDG&E, CPUC, and BLM members responsible for implementing the MMCRP and their relationship to other staff working on the project.

The roles and responsibilities of each position shown in Figure 1 have been defined in Section 2.1.

Attachment B: Project Contact List contains contact information for each position shown in Figure 1.

### **2.1 Organization and Roles of Each Entity**

#### **2.1.1 San Diego Gas & Electric Company**

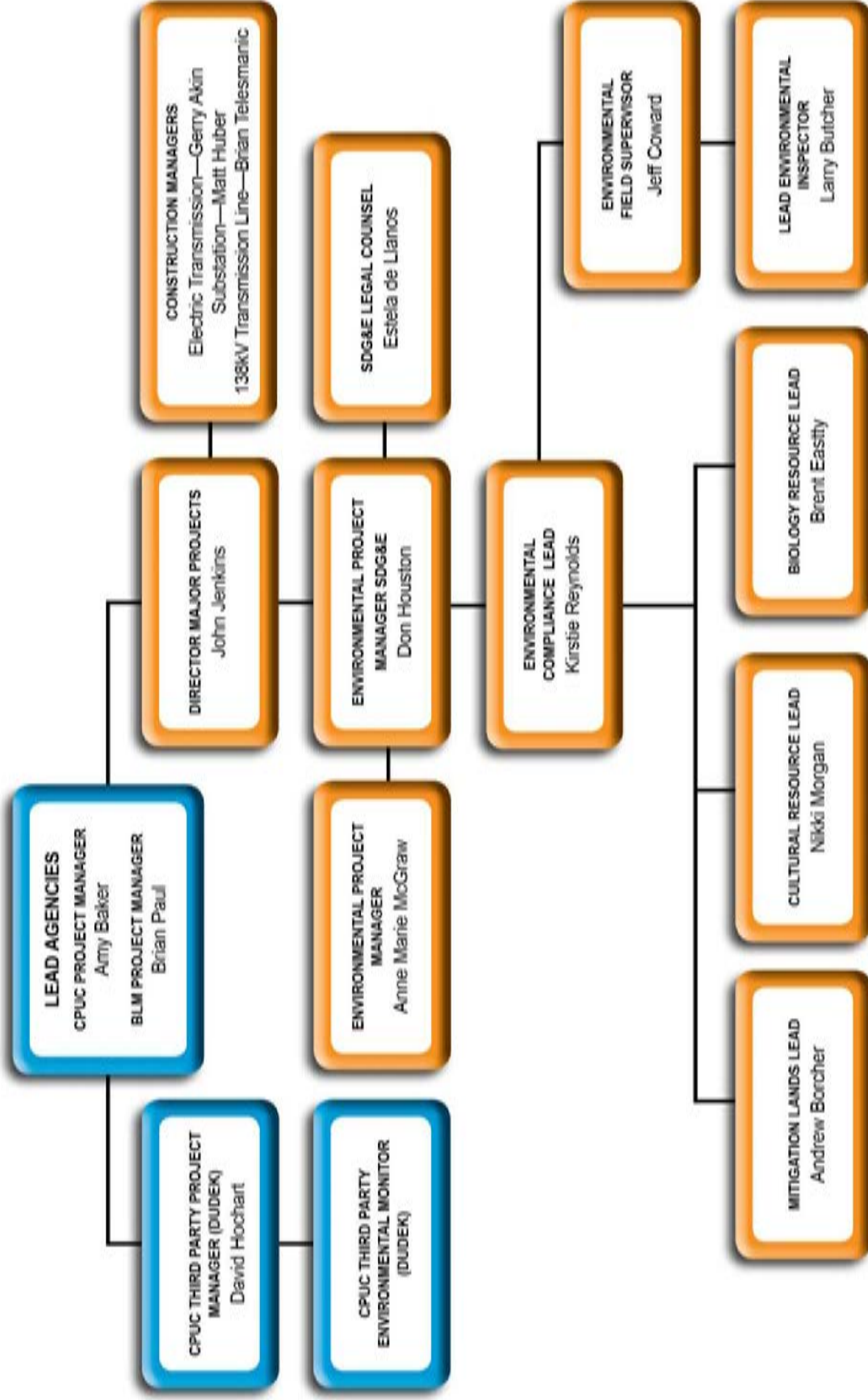
##### **SDG&E Director Major Projects**

SDG&E's Director Major Projects referenced in the contact list (Attachment B) provides the overall direction, management, leadership, and corporate coordination for the construction project. The Director's responsibilities related to the environmental program include, but are not limited to:

- Coordinate between financial, safety, public affairs, construction, engineering, land services, and environmental staff
- Provide direction by integrating environmental compliance into all levels of the project organization
- Communicate corporate coordination for all levels of the project organization
- Ensure financial support, corporate leadership, and management staff effectively to comply with all project policies, requirements, and procedures.

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**Figure 1**  
**MMCRRP Organization – San Diego Gas & Electric Company**





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## **SDG&E Project Managers**

SDG&E's Project Managers (PMs) referenced in the contact list (Attachment B) oversee the activities of the assigned construction components. Specific responsibilities of the PMs include, but are not limited to:

- Ensure compliance with project specifications, drawings, permit conditions, construction contracts, and applicable codes
- Notify Environmental PM and Environmental Compliance Lead of project schedule changes
- Work with SDG&E Environmental Project Management Team to evaluate and improve the implementation of the MMCRP as construction progresses
- Provide leadership for the engineering, procurement, and construction services by integrating environmental responsibility into the project organization
- Regularly facilitate project meetings
- Ensure all construction personnel receive environmental training (Safe Worker and Environmental Awareness Program [SWEAP])
- Manage the engineer, procure, construct (EPC) contractor, Beta Engineering

## **SDG&E Construction Personnel**

Construction activity will take place at any given time within multiple construction components. Construction contractors will have significant responsibilities for implementation of and compliance with the environmental requirements of the project. The contractors will be responsible for incorporating all project environmental requirements into their day-to-day construction activities. Key environmental responsibilities for contractors' staff include, but are not limited to:

- Verify that all construction workers attend the project's SWEAP training prior to beginning work on the project
- Review and understand the environmental requirements
- Implement and maintain mitigation measure requirements and conditions during construction
- Respond to requests by SDG&E Environmental Specialists and Environmental Inspectors during construction.

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## **SDG&E Environmental Project Manager**

SDG&E's Environmental Project Manager (EPM) referenced in the contact list (Attachment B) is responsible for providing the appropriate level of resources for successful implementation of the MMCRP. The EPM will provide management, direction, and leadership to the SDG&E Environmental Project Management Team. Specific responsibilities of the EPM, include, but are not limited to:

- Directing the development and implementation of the pre-construction environmental planning, permitting, and compliance activities
- Ensures the development and implementation of the SWEAP
- Provide the leadership and resources to assure compliance with the MMCRP
- Actively communicate with the lead agencies, particularly in regards to the MMCRP
- Establish and support the lines of communication between the SDG&E Environmental staff, construction personnel, agencies, and EMs.

## **SDG&E Environmental Compliance Lead**

SDG&E's Environmental Compliance Lead (ECL) referenced in the contact list (Attachment B) will provide oversight of all activities required for compliance with the MMCRP. The ECL's responsibilities include, but are not limited to:

- Coordination and tracking of the submittal process in order to receive NTPs
- Working closely with CPUC/BLM EMs to evaluate the effectiveness of mitigation measures
- Provide coordination with construction and engineering groups to ensure mitigation measures are understood and implemented
- Ensure frequent and clear communication between the SDG&E Environmental staff, construction personnel, responsible resource agencies, and EMs
- Review and approve daily inspection reports
- Submit weekly and monthly summary reports to responsible resource agencies, as applicable.

## **SDG&E Environmental Specialist**

SDG&E's Environmental Specialist referenced in the contact list (Attachment B) will support the ECL for successful implementation, planning, permitting, and compliance activities required under the MMCRP. The Environmental Specialists' responsibilities include, but are not limited to:

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- Coordinating the activities of the biological, paleontological, cultural, air, water, visual, wilderness/recreation, and noise mitigation measure requirements
- Coordinating the development and implementation of the pre-construction environmental planning, permitting, and compliance activities
- Actively communicating with all agencies respective to the above mitigation measure requirements
- Providing technical assistance to the Environmental Inspectors.

### **SDG&E Lead Environmental Inspector**

- Coordinating with CPUC/BLM EM's as appropriate
- Coordinating the mobilization of other resource specialists, including cultural, Native American, paleontological, and a stormwater pollution prevention plan (SWPPP) specialist, as required
- Conducting daily inspection of construction activities
- Assessing work area conditions ahead of construction and providing advance notice of conditions and situations that require specific awareness, planning, or notifications
- Completing daily inspection reports
- Preparing Minor Project Refinement Requests or assisting SDG&E and its contractors with their preparation.

### **SDG&E Environmental Inspectors**

Several mitigation measures require a qualified specialty inspector during construction, as presented in Section 6.2. SDG&E is to provide an on-site specialty inspector to meet the conditions of the mitigation measures identified in Section 6.2. The information will be completed as it becomes available and as consultant and contract personnel are finalized. The Environmental Inspectors will provide oversight, protection, and direction for compliance within their field of expertise for the applicable construction components.

### **Additional SDG&E Roles**

#### ***SDG&E Public Affairs***

The SDG&E Regulatory Case Manager for Regulatory Affairs provides information and guidance to both the ECO Substation Project Construction Management and Environmental Management Teams, as needed.

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## *SDG&E Environmental Law Department*

The SDG&E Senior Counsel for the Environmental Law Department provides information and guidance to both the ECO Substation Project team and Environmental Management teams, as needed.

## *Mitigation Compliance*

SDG&E is responsible for successfully implementing all the adopted mitigation measures and APMs in the MMCRP. The MMCRP contains criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining nondiscretionary permits or avoiding a specific impact entirely. Additional mitigation success thresholds may be imposed by applicable agencies with jurisdiction through the discretionary permit process.

### **2.1.2 California Public Utilities Commission**

#### **CPUC Project Manager**

The CPUC Project Manager (see Attachment B, Project Contact List) has the overall responsibility for ensuring that mitigation measures are implemented as adopted by the CPUC. She will determine the effectiveness of the MMCRP based on the success criteria included in the mitigation monitoring program tables. The CPUC delegates field monitoring and reporting responsibilities to Dudek, the third-party monitoring firm and the firm that prepared the environmental impact report/environmental impact statement (EIR/EIS) for the CPUC and BLM. The CPUC Project Manager will oversee Dudek's work through telephone calls and review of daily and weekly status reports. The CPUC Project Manager will be notified of all noncompliance situations immediately by telephone call or e-mail and may suggest measures to help resolve the issue(s). All Minor Project Refinement Requests will be submitted to the CPUC Project Manager for review and approval.

The CPUC Project Manager will issue NTPs for construction of each segment identified by SDG&E. Where an NTP covers BLM, CDFG, or other jurisdictional lands, the CPUC's NTP does not authorize construction to start, but only documents compliance with all relevant mitigation measures and permit conditions. No construction may occur on BLM or other jurisdictional lands without specific approval (i.e. issuance of permits) by those agencies.

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### **CPUC Environmental Monitors**

The overall monitoring program will be administered under the direction and oversight of the CPUC Project Manager. The CPUC has delegated daily monitoring and reporting responsibilities to Dudek, a third-party monitoring firm. Individual roles are defined in Attachment B, Project Contact List. The number of CPUC EMs and frequency of site inspections will depend on the number of concurrent construction activities and their locations with respect to sensitive resources and land uses, and compliance with project mitigation measures and permit conditions during construction.

SDG&E Environmental Inspectors have primary responsibility for ensuring that construction activities are conducted in accordance with approved project mitigation measures, compliance plans, and permit conditions. The role of the CPUC EMs (Dudek) is to ensure and document that compliance is being achieved using verbal and written communications.

- **Dudek Monitoring Manager.** The Monitoring Manager supervises Dudek's Lead and EMs, as well as determines the appropriate level of inspection frequency and is responsible for weekly report preparation. The Monitoring Manager also serves as the main point of contact with the CPUC Project Manager for major issues and noncompliance discussions.
- **Lead Environmental Monitor (CPUC LEM).** The CPUC Lead Environmental Monitor (LEM) will oversee the day-to-day monitoring activities of the EMs, be the primary point of contact with in-field agency personnel, and coordinate preparation of draft weekly reports. The CPUC LEM will have the most direct contact with the CPUC Project Manager on day-to-day issues.
- **CPUC Environmental Monitors (CPUC EMs).** CPUC EMs will be an integral part of the project team and will stay apprised of construction activities and schedule changes, and will monitor construction activities for compliance with project mitigation measures, compliance plans, and permit conditions. The CPUC EMs will document compliance through maintaining daily logs and use of a mitigation measure tracking table. The CPUC EMs will also provide input for the draft weekly reports. The CPUC EMs shall note problems with monitoring, notify designated project members, and report the problems to the CPUC Project Manager. The enforcement and shut-down authority of the CPUC EM in the field is limited to issues that address imminent safety issues or resource danger. All other issues will be brought to the attention of the SDG&E Environmental Inspectors to address appropriately.

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## **Enforcement Authority**

The CPUC and other jurisdictional agencies are responsible for enforcing the procedures adopted for monitoring through the CPUC EMs assigned to each project component. Other jurisdictional agencies, including the BLM, USFWS, and CDFG have the independent authority to halt construction, operation, or maintenance activity associated with the ECO Substation Project within their respective jurisdictions if the activity is determined to be a deviation from the approved project or adopted mitigation measures or puts a sensitive resource at undue risk.

### **2.1.3 Bureau of Land Management**

As the NEPA lead agency, BLM is responsible for ensuring that applicable mitigation measures are implemented on BLM land. BLM intends to work with the CPUC in implementation of mitigation monitoring during construction of the ECO Substation Project, and will use Dudek, the CPUC's environmental contractor, for monitoring on its lands. However, BLM's resource specialists may also have a field presence for project inspection and to review and resolve any on-the-ground issues that may arise on BLM land. No activities may occur on BLM-managed lands without BLM approval.

#### **Field Manager**

The El Centro Field Manager is the authorized officer to make BLM decisions pertinent to this project. The Field Manager will issue all authorizations or permits for the use of BLM land.

#### **BLM Project Manager**

The Project Manager reports to the Field Office Manager and is responsible for coordinating the implementation of the project between the BLM staff at the field, district, and state office levels. The Project Manager is the primary point of contact with the SDG&E and other agencies for review of documents, reports, mitigation progress, and project planning.

#### **BLM Resource Specialists**

Various resource staff will be involved with implementation of this project. They will be assisting the Project Manager and environmental monitors with evaluation of conditions and project status relative to mitigation requirements or other stipulations. These support staff will include archaeologists, biologists, geologists, and other staff as required.

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### **2.1.4 United States Army Corps of Engineers**

Section 404 of the Clean Water Act (CWA) (33 United States Code (U.S.C.) 1251 et seq., formerly the Federal Water Pollution Control Act of 1972) authorizes the ACOE to regulate the discharge of dredged or fill material to waters of the U.S. and adjacent wetlands associated with the approved project. The ACOE issues individual site-specific or general (nationwide) permits for such discharges. ACOE issuance of a Section 404 permit triggers the requirement that a Section 401 certification also be obtained.

The CPUC/BLM EMs are familiar with the ACOE permit conditions and check for implementation in the field. If an issue arises during construction related to the ACOE permit, the CPUC/BLM EMs will notify SDG&E Environmental Inspectors to correct the items. If necessary, the ECL will communicate with the ACOE representative so that he/she can take action. At times the CPUC/BLM LEM may need to communicate with the ACOE directly, but SDG&E ECL should be the main point of contact with the ACOE for any items relating to the permit. In addition, the ACOE representative will be asked if he/she would like to be on the weekly report distribution. No activities that would potentially affect waters of the U.S. or adjacent wetlands may occur until the Section 404 permits are approved and certified.

### **2.1.5 United States Fish and Wildlife Service**

Under Section 7 of the Federal Endangered Species Act (FESA) of 1973, as amended (16 U.S.C. 1531 et seq.), and the Fish and Wildlife Coordination Act, BLM has consulted with the USFWS and the appropriate state wildlife agency (CDFG, see Section 2.1.6). As part of the FESA Section 7 consultation process, USFWS issued a Biological Opinion (BO) in September 2011 in response to the Biological Assessment (BA) that was submitted by BLM, the NEPA Lead Agency (see Appendix A of Attachment H, BLM Record of Decision, to this MMCRP). In its BO, USFWS stated that SDG&E had committed to implement general and species-specific conservation measures to avoid, minimize, and offset the impacts of this project on endangered and threatened species and their designated and proposed critical habitats.

Where conservation measures relate to construction activities, the CPUC/BLM EMs will ensure that the conservation measures in the BO are implemented. If a potential violation occurs during construction related to the BO, the CPUC/BLM EMs will notify SDG&E Environmental Inspectors to correct the items. If necessary, the ECL will communicate with the USFWS representative(s) (as well as the CPUC and BLM Project Managers) so that appropriate action can be taken. At times the CPUC/BLM LEM may need to communicate with the USFWS directly, but SDG&E ECL should be the main point of contact with the USFWS for any items relating to the BO. USFWS representatives will also be consulted by the CPUC Project Manager

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if an issue arises relevant to an adopted conservation measure to protect federally listed species, or if any species addressed in the BO are affected during construction in a manner not anticipated in the BO. In addition, the USFWS representative(s) will be included in the weekly report distribution. Long-term monitoring during operations and maintenance will be addressed through consultation and planning with USFWS.

### **2.1.6 California Department of Fish and Game**

CDFG has jurisdiction over the conservation, protection, and management of California's fish, wildlife, native plants, and the habitats necessary for their sustenance. CEQA lead agencies have a legal obligation to consult with CDFG as to their projects' impacts on biological resources.

The California Fish and Game Code, Sections 3511, 4700, 5050, and 5515 provide for the highest level of protection for mammals, birds, reptiles and amphibians, and fish listed as "Fully Protected." Designated species may not be taken or possessed at any time. CDFG cannot issue permits that authorize the "take of any fully protected species, except for certain circumstances such as scientific research and live capture and relocation to protect livestock."

Two statutes outside of California Endangered Species Act (CESA) provide protection for birds, nests, and eggs. They include California Fish and Game Code Section 3503 that prohibits the taking, possession, or needless destruction of nests or eggs and Section 3503.5 that prohibits the taking, possession, or destruction of birds of prey (Falconiformes and Strigiformes) or their nests and eggs.

CESA's protection for plants is subject to the Native Plant Protection Act (NPPA) (Sections 1900–1913). The NPPA afforded the CDFG the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take.

The CDFG will require a Streambed Alteration Agreement, pursuant to Section 1600 et seq. of the California Fish and Game Code, that prior to the commencement of any activity that will substantially change the bed, channel, or bank (which may include associated riparian resources) of a river, stream, or lake; use materials from a streambed; and/or result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake. The CDFG's issuance of a Streambed Alteration Agreement for a project that is subject to CEQA requires CEQA compliance actions by the CDFG as a responsible agency. As a responsible agency under CEQA, CDFG may consider the local jurisdiction (lead agency's) CEQA documentation for the project.

The CPUC/BLM EMs will coordinate with the CDFG as needed during construction. The CPUC/BLM EMs are familiar with the CDFG permit conditions and will ensure implementation



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in the field. If an issue arises during construction related to a CDFG permit, the CPUC/BLM EMs will notify SDG&E Environmental Inspectors to correct the items. If necessary, the ECL will communicate with the CDFG representative (as well as the CPUC and BLM Project Managers) so that appropriate action can be taken. At times, the CPUC/BLM LEM may need to communicate with the CDFG directly, but SDG&E ECL should be the main point of contact with CDFG for any items relating to CDFG permits. In addition, the CDFG representative will be included in the weekly report distribution.

### **2.1.7 California Environmental Protection Agency – State Water Resources Control Board**

The Porter-Cologne Water Quality Control Act of 1967, Water Code Section 13000 et seq., as amended, requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect state waters. The ECO Substation Project is located within the jurisdictional boundary of the Colorado River Basin Regional Water Quality Control Board, Region 7 (RWQCB7). The RWQCB7's purpose is to avoid or to minimize impacts to waters of the state associated with the ECO Substation Project. The CPUC/BLM EMs will coordinate with the RWQCB7. The CPUC/BLM EMs shall be familiar with the RWQCB7 permit conditions and shall check for implementation in the field.

The CPUC/BLM EMs shall include staff trained and experienced in wildland wetland and stream protection, wildland project stormwater management, and restoration/reclamation methods and practices. If an issue arises during construction related to the RWQCB7 permit, the CPUC/BLM EMs will notify SDG&E Environmental Inspectors to correct the items. If necessary, the ECL will communicate with the RWQCB7 representative so that he/she can take action. At times, the CPUC/BLM LEM may need to communicate with the RWQCB7 directly, but SDG&E ECL should be the main point of contact with RWQCB7 for any items relating to RWQCB7 permits. In addition, the RWQCB7 representative will be on the weekly report distribution. No activities can occur that would potentially affect waters of the state until all RWQCB7 orders, permits, certifications, waste discharge requirements, and notifications are approved.

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## **3.0 COMMUNICATION**

Communication is a critical component of a successful environmental compliance program. In order to avoid project delays and possible shut-downs, environmental and construction representatives will need to interact regularly and maintain professional, responsive communication at all times. Similarly, SDG&E representatives will need to coordinate closely with CPUC/BLM EMs to address and resolve issues in a timely manner. Therefore, this section of the MMCRP provides a communication protocol to accurately disseminate information on ongoing surveys and mitigation measures, construction activities, contractors, and planned or upcoming work to all levels of the project.

### **3.1 Pre-Construction Compliance Coordination**

SDG&E is required by the terms of the mitigation measures and the permitting requirements of various other regulating agencies to prepare plans and obtain approval of these documents, in addition to performing various surveys and studies prior to construction. The purpose of the pre-construction coordination process is to discuss document submittal status, document the findings of data reviews and jurisdictional agency approvals, review SDG&E submittals, and document the status of mitigation measures as they apply to the project or phased project segment. The goal of the pre-construction process is to complete all required actions so the CPUC and other agencies, as appropriate, can issue NTP authorizations for each project component.

#### **Pre-Construction Activities**

A pre-construction meeting was held on August 7, 2012, with the CPUC, BLM, SDG&E, and CPUC/BLM EMs to review the MMCRP and mutually agree on the project's communication protocol. Based on discussion at the meeting and ongoing input from each party, this MMCRP has been updated.

### **3.2 Agency Compliance Website**

An interactive website is being set up to make available current versions of reports, maps, and other documents prepared for mitigation compliance. The purpose of the website is to facilitate sharing of data and status reports, which change on an almost daily basis, especially during the pre-construction period, but also during project construction.

The website will be available to all interested lead and permitting agencies (see Table 1). Access will be by assigned password and email address. The website will include the following documents:

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- Action item table, tracking status of submitted items and items to be completed by various parties
- A status table, tracking status of compliance with each mitigation measure
- SDG&E's current versions of project design drawings and maps.

### **3.3 Communication Protocol During Construction**

In order to ensure that the CPUC/BLM EMs can get accurate information on ongoing surveys, construction work, and schedules, and that SDG&E management is kept in the loop, the following protocols have been formulated:

- The CPUC/BLM EM's primary point of contact will be SDG&E's Lead Environmental Inspector (LEI). If he/she is not available, the SDG&E ECL will be the point of contact. If issues can't be resolved at the EM/SDG&E ECL level they will be initially elevated to CPUC Project Manager/SDG&E EPM, via email or telephone.
- SDG&E will inform the CPUC/BLM LEM of all survey and construction activity, including status of permits and activity locations in a timely manner. Timely notification of activity is that which allows reasonable response time for agency monitors to be present for that activity. Notification will correspond to organization and roles for each entity as identified in Section 2.0.
- The CPUC/BLM EM and any other designated agency representatives or staff can talk to anyone on the construction site to ask questions about their activity, but the construction personnel may opt to refer him/her to the appropriate SDG&E Contract Administrator for an answer. Contract Administrators are the appropriate contacts for information on construction activity schedules or construction practices.
- SDG&E will provide a list of all Environmental Inspectors or resource monitors<sup>1</sup> identified by title and contact information for each person. Updated distributions will be utilized to keep all parties informed of monitor and staff additions/changes. This list of personnel, and all subsequent updates, shall be distributed to all persons on the list throughout the construction process.
- CPUC/BLM EMs will continue to point out compliance concerns first to SDG&E Environmental Inspectors and then to the SDG&E ECL if necessary in order to allow time to contact resource agencies and resolve compliance issues. Documentation of each

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<sup>1</sup> Resource monitors include biological, cultural, and paleontological monitors, as well as SWPPP or hazardous materials inspectors

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of these communication efforts, along with documentation of subsequent actions to achieve compliance, will be reported. However, at any time when the CPUC/BLM EMs have an unresolved concern about compliance, the SDG&E ECL and CPUC Project Manager will call the appropriate resource agency together to discuss the issue. The CPUC Project Manager may choose to discuss the issue directly with the appropriate resource agency as needed.

- The resource agencies will be notified immediately by SDG&E of any non-compliance events affecting the respective resource or permit condition. The resource agency should also be notified in the event of a newly identified special-status resource within the project footprint or resource effect not previously analyzed. In addition, the CPUC/BLM EM will also receive immediate notification. Subsequent to immediate agency notification, SDG&E will develop a plan to resolve the situation and will follow up with the respective agencies to explain their strategy and receive agency input.
- SDG&E will expeditiously submit a final report regarding any non-compliance event, as described in Section 4.1.
- If “take” is imminent or there is a danger/hazard, the CPUC/BLM EM can request work to be temporarily stopped in that area immediately (as long as it can be done safely); this request should be made to the appropriate Contract Administrator or the SDG&E LEI. At any time, anyone can order an activity to be halted temporarily if take or a hazard is imminent.
- SDG&E will expeditiously make a preliminary verbal notification of any potential non-compliance event. If the non-compliance event is confirmed, the verbal notification will be followed by a final report regarding the noncompliance event, as described in Section 4.0 Environmental Compliance and Field Procedures.

The following list describes the communication process that will occur when the SDG&E EI and/or CPUC/BLM EM identifies a non-compliance event during construction

- **Step 1.** SDG&E ECL and/or CPUC/BLM LEM verbally notifies SDG&E, BLM, and/or CPUC and requests immediate corrective action.
- **Step 2.** SDG&E ECL and/or CPUC/BLM LEM informs SDG&E, BLM, and/or CPUC of non-compliance event immediately and reports whether SDG&E has corrected the non-compliance event.
- **Step 3.** SDG&E ECL and/or CPUC/BLM prepares a written Non-Compliance Report (NCR) and transmits it to SDG&E, BLM Project Manager, and/or the CPUC Project Manager.

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- **Step 4.** SDG&E ECL, BLM Project Manager, and/or CPUC Project Manager will inform applicable resource agency if non-compliance actions have the potential to harm an environmental resource or species.
- **Step 5** Resource agencies may order work stoppage and development of strategy for successful resource/species protection.

### **3.4 Progress Meetings During Construction**

SDG&E will conduct field meetings as-needed with PMs, contract administrators, contractor supervisors, and SDG&E's environmental representatives to discuss work completed, work anticipated for the following period, and the status of mitigation measures. The field meetings will also be a forum for discussing safety and environmental compliance issues or concerns with the construction contractors. SDG&E may request CPUC's, BLM's and any other agency's EM(s) to participate in the meeting to help resolve any issue that may have arisen during the previous period. Alternatively, SDG&E or CPUC/BLM EM(s) may recommend a separate meeting to discuss mitigation, minor project refinement requests, or other project-related issues. These meetings may be held at the field trailer or on the project ROW to discuss a site-specific issue.

In addition to the progress meetings conducted at the field level, the SDG&E EPM, SDG&E Construction Manager, SDG&E ECL, SDG&E LEI, CPUC/BLM LEM, CPUC Project Manager, BLM, and/or other jurisdictional agencies may participate in a teleconference call. The teleconference calls would be similar to the progress meeting; however, the conference calls would focus on the Mitigation Monitoring Program.

### **3.5 Daily Communication during Construction**

Many of the problems that come up during construction can be resolved in the field through regular communication between CPUC/BLM EMs, SDG&E, and construction contractors. Field staff will be equipped with cell phones and will be available to receive phone calls at all times during construction. A project contact list has been included in Attachment B. The organization chart depicted in Section 2.0 and Communication Protocol in Section 3.3 illustrates the lines of communication to be used during construction. The following provides additional guidelines to ensure effective communication in the field.

#### **CPUC/BLM EM**

The CPUC/BLM EM's primary point of contact in the field is SDG&E's LEI. The CPUC/BLM EM will contact SDG&E's LEI if an activity is observed that conflicts with one or more of the mitigation measures, so that the situation can be corrected. If the CPUC/BLM EM cannot immediately reach SDG&E's LEI, then the SDG&E ECL or SDG&E EPM will be contacted to

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address the problem. Similarly, the CPUC/BLM EM will contact SDG&E's LEI for information on where construction crews are working, the status of mitigation measures, and schedule forecasts. The CPUC/BLM EM may ask questions about construction procedures directly with the construction contractors; however, SDG&E may require their contractors to defer questions to an on-site SDG&E representative. In all cases, the CPUC/BLM EM will contact the designated SDG&E representative if a problem is noted that requires action from the contractor. The CPUC/BLM EM will not direct the contractor; however, the CPUC/BLM EM has the authority to temporarily stop work, assuming it is safe to do so, if an activity poses an imminent threat or puts a sensitive resource at undue risk (e.g., stopping a clearing crew from unknowingly disturbing a cultural resources environmental site assessment [ESA]).

### **SDG&E**

SDG&E will provide the CPUC/BLM EM with a list of construction monitoring personnel and construction supervisory staff to contact regarding compliance issues. The contact list will include each person's title, responsibility, contact information, and whether their position is component specific. The contact list will be updated as new project personnel are assigned to the project and redistributed as necessary.

SDG&E will prepare and distribute a weekly environmental compliance status report for distribution to key project members, including the CPUC and BLM. The CPUC/BLM EM will review the weekly report to ensure that the status of mitigation measures is consistent with observations in the field. Any questions regarding the status of mitigation measures will be directed to the SDG&E LEI. The weekly environmental compliance status report will also be a tool to keep all parties informed of construction progress and schedule changes. It should be noted that daily and weekly compliance reports would also be prepared by CPUC/BLM EMs, as described in Section 4.1.3.

### **3.6 Communicating Compliance Issues**

Section 4.0 describes procedures to communicate minor deviation incidents and non-compliance events identified by the CPUC/BLM EMs during site inspections.

### **3.7 Contact List**

A project contact list has been included as Attachment B. The contact list includes the names of SDG&E and CPUC monitors, project managers, supervisory staff, and other members of the project team. The list also includes phone numbers, fax numbers, and email addresses where project members can be reached during construction. The contact list will be updated periodically and redistributed to the project team.

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## **4.0 ENVIRONMENTAL COMPLIANCE AND FIELD PROCEDURES**

### **4.1 Mitigation Measures Compliance and Reporting**

#### **4.1.1 Pre-Construction Compliance Verification**

SDG&E is required by the terms of the mitigation measures and the permitting requirements of various other regulating agencies to prepare plans and obtain approval of these documents, in addition to performing various surveys and studies prior to construction. Copies of this documentation will be retained by the CPUC/BLM EMs, and provided to the CPUC and BLM with all files at the completion of the project. The plans, surveys, studies, and other documentation required to be completed by SDG&E before construction are listed in the mitigation measure and APM tables in Sections 6.2 and 6.3.

While these documents are being reviewed by the approving agencies, they are also reviewed by the CPUC and BLM. Compliance with all pre-construction mitigation measures and APMs presented will be verified prior to construction, and construction may not start on any segment before SDG&E receives a written NTP from the CPUC Project Manager and/or BLM Project Manager.

The CPUC/BLM EMs, including project management staff and the technical experts, will review all mitigation plans and reports and provide comments. Resource agencies will also be involved in the review of applicable plans and reports, primarily restoration related, and will provide comments. Comments on these documents will be provided to SDG&E to ensure that they adequately accomplish the intended reduction in impacts. For required local and state agency permitting/consultations, the CPUC/BLM EMs will track SDG&E's progress as it relates to SDG&E's construction plans and project mitigation and permitting requirements. Based on SDG&E's construction plans, CPUC and/or BLM may authorize construction to begin on a phased basis and the CPUC/BLM EMs will handle pre-construction compliance review accordingly. CPUC and/or BLM may issue NTPs for construction of each phase separately, as soon as pre-construction compliance is satisfactorily accomplished for that phase.

The CPUC and/or BLM will not authorize construction to begin until all pre-construction requirements have been fulfilled for a given phase. To save time, SDG&E should identify extra work space needs required for each phase of construction prior to the start of active construction, so that the locations and their use can be included in the NTP.

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### **4.1.2 Notice to Proceed Procedures**

The CPUC Project Manager, BLM Project Manager, and Dudek (the third-party monitoring firm and the firm that prepared the EIR/EIS for the CPUC and BLM) will ensure that the NTP process is consistent with the adopted CEQA and NEPA documents. The NTP approval(s) shall document that pre-construction mitigation measure requirements, applicable survey and study, as well as project permit requirements have been met. In consideration of linear or phased projects, more than one NTP can be requested for the project. Each NTP request would be applicable to a defined aspect or component of construction. Construction is defined as any mobilization activity that would move construction-related equipment and/or materials onto a site. In some instances, compliance with every requirement cannot be met prior to NTP issuance and in such cases the NTP may be conditioned to define actions to be taken and documented prior to construction or prior to energizing the line. Therefore, an NTP may be issued for a particular segment or project component upon compliance with applicable mitigation measures and permits, and this process could occur in advance of mitigation compliance for the entire project as a whole.

In general, an NTP request must include the following information:

- A description of the work
- Detailed description of the location, including maps, photos, and/or other supporting documents
- Verification that all mitigation measures and APMs have been met or do not apply to the work covered by the NTP request
- Verification that all applicable permit conditions or requirements, project parameters, or other project stipulations have been met for the work covered by the NTP request
- In the case where some outstanding compliance items cannot be met prior to issuance of the NTP, a request shall be submitted that outlines what submittals are outstanding and how they will be met and approved in a timely manner prior to construction
- Up-to-date biological resource surveys or a commitment to survey and submit results prior to construction
- Cultural resource surveys or verification that no cultural resources would be significantly impacted
- All applicable jurisdictional permits or agency approvals (if necessary)
- Date of expected construction and duration of work.

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CPUC and/or BLM will review the NTP request and pre-construction requirement submittals per the steps outlined below to ensure that all of the information required to process the approval is included.

1. SDG&E submits NTP request and posts the request to the collaboration site. CPUC and/or BLM will distribute the NTP request for review as follows:
  - i. To the team biological resources expert for review for biological resources. Review question/comments will be provided in a letter or email.
  - ii. To the team cultural resources expert for review of cultural resources. Review questions/comments will be provided in a letter or email that will be forwarded by CPUC to BLM with the request. BLM will provide cultural review and will supply any conditions to add to the NTP, as well as an approval regarding cultural resources reporting.
  - iii. The remaining portions of the NTP request will be sent to issue area reviewers where appropriate.
2. CPUC and/or BLM will also review and, if needed, will prepare a bullet list of outstanding requirements and where additional information or clarification is needed.
3. All questions and comments, as well as required additional information or clarifications, shall be sent to SDG&E by CPUC and/or BLM in an email.
4. SDG&E will supply clarifications and/or additional information to be added to the NTP request in a memo or letter format along with responses addressing all comments and questions forwarded by CPUC and/or BLM.
5. CPUC and/or BLM will complete a Compliance Status Table documenting compliance and any outstanding requirements that can be made conditions of the NTP, including any conditions supplied by BLM. If comments/conditions are provided by CDFG, USFWS, ACOE, and/or RWQCB7, they will be considered for incorporation into the NTP approval letter and compliance table. CPUC and/or BLM will prepare the draft NTP approval letter, which will document the scope of work, compliance with EIR/EIS and bullet outstanding conditions.
6. CPUC and/or BLM will review the draft NTP approval letter and send the approval and an updated compliance table to SDG&E.
7. CPUC and/or BLM will then post the approved NTP documentation on the public CPUC project website.

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### **4.1.3 Compliance Reporting During Construction**

As described in Section 2.0, the CPUC/BLM EMs will perform compliance inspection throughout the construction period to ensure compliance with all applicable mitigation measures, plans, permits, and conditions of approval of the CPUC and BLM. Site visits may be coordinated with SDG&E or conducted unannounced. Supplemental information provided by SDG&E, including pre-construction submittals, survey reports, weekly reports, meeting notes, and agency correspondences, will also be used to verify compliance.

The CPUC/BLM EMs will document observations along the ROW through the use of field notes and digital photography. The photos will be provided in the weekly reports and correlate to a discussion of specific construction or compliance activity. In addition, field inspection forms will be utilized in the field to document compliance of specific crews, construction activities, or resource protection measures. The forms will provide a standardized checklist to facilitate inspections, as well as list mitigation measures that were verified during the site visit. Information gathered from the inspection forms and field notes will be used to generate weekly status reports and update the status of mitigation measures listed in Sections 6.2 and 6.3. A sample site inspection form has been included in Attachment C. Weekly reports will be provided to all permitting agencies via email and/or posted on a collaboration website during construction.

Separate enforcement actions by the regulatory agencies may not follow these steps.

### **4.1.4 Compliance Levels**

The CPUC/BLM EM and SDG&E LEI shall document all observations and communications in a logbook and will determine whether the observed construction activities are consistent with mitigation measures, APMs, and project parameters, as identified in the FEIR/FEIS and adopted by the CPUC and BLM. All compliance issues regardless of level will be documented in the daily/weekly reports, which will be provided to all agencies upon request.

Any regulatory agency has the authority to issue compliance violations regardless of SDG&E's, CPUC and BLM actions. The CPUC/BLM EM shall not direct the work of a construction contractor or subcontractor. A construction activity that deviates from permit conditions or mitigation measures, particularly when the activity puts a resource at risk, would be considered a non-compliance. A non-compliance issue may also be reported by SDG&E LEI and/or CPUC/BLM EM if a mitigation measure is not implemented according to the timing restrictions listed in the mitigation tables. Examples of non-compliances include, but are not limited to:

- Use of new access roads, staging areas, or extra workspaces not identified on the project drawings or approved for use during construction

## **East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program**

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- Encroachment into an exclusion zone or sensitive resource area designated for avoidance
- Brush clearing outside the approved work limits
- Activity during seasonal activity restrictions
- Grading, foundation, or line work without required biological pre-construction surveys or biological monitor on site
- Failure of erosion or sediment control structures if it puts a sensitive resource at risk
- Discharge of sediment-laden trench or foundation hole water into a waterbody or storm drain.

SDG&E will immediately notify the CPUC/BLM EM and the CPUC Project Manager if any non-compliance events occur, verbally or through e-mail. SDG&E will follow up with a detailed written report of the event within 24 hours or at a time agreed upon with the CPUC Project Manager. In the event the non-compliance is observed by a CPUC/BLM EM, the CPUC/BLM EM will immediately notify the designated SDG&E representative of a non-compliance that requires immediate corrective action. An NCR will be sent to SDG&E from the CPUC Project Manager and/or BLM Project Manager that outlines the incident. The NCR shall list all actions required to bring the activity back into compliance, and provide a timeline for follow-up. All NCRs and Project Memoranda will be made available upon request to agencies with resources that were potentially affected by activities reported in the NCR. If a construction activity or observed resource protection measure only slightly deviates from project requirements and does not put a resource at immediate risk, the CPUC/BLM EM and/or SDG&E LEM may elect to issue a Project Memorandum to get the issue corrected. Construction activities that could result in a Project Memorandum include, but are not limited to:

- Failure to properly maintain an erosion or sediment control structure, but structural failure has not occurred
- Use of an existing unapproved access road (first offense)
- Project personnel begin work on the ROW without proof of training
- Work outside the approved work limits where the off-ROW incident is within a previously disturbed area, such as a gravel lot.

Through the issuance of Project Memoranda and NCRs, patterns of compliance issues can be discerned; preventative measures can be developed; and remedial work, if needed, can be scheduled.

Incident reports (i.e., reportable spills) would also be tracked in the Weekly Reports. Repeated events that individually might not be considered non-compliance may become non-compliance if

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continued occurrence after initial incident is observed and documented. In other words, repeated incidents will result in non-compliance.

### **Compliance and Non-Compliance Violation Levels**

Project compliance and non-compliance violation levels and the specific corrective actions are defined below. The compliance and non-compliance violation levels should be utilized by both SDG&E LEI's and CPUC/BLM EM's to document compliance levels throughout construction.

- **Level 0 Compliance.** This level indicates that all mitigation measures and permit conditions are being complied with and there are no violations. No corrective action is necessary.
- **Level 1 Minor Deviation.** This level indicates that a minor deviation from a mitigation measure has been identified and action is being taken in the field to immediately remedy the situation. No resources are being impacted and no potential for resource damage exists. If a minor deviation is not expeditiously corrected, it would become a Level 2 Non-Compliance issue.
- **Level 2 Non-Compliance.** One aspect of a mitigation measure has not been complied with, resulting in only partial implementation of a mitigation measure, but no significant impact. An oral warning shall be issued and corrective action shall be required within a stated maximum period, to be determined by the CPUC/BLM EM and/or SDG&E LEI. If corrective action is not taken within the stated period, a Project Memorandum will be issued.
- **Level 3 Non-Compliance.** One or more aspects of a mitigation measure have not been complied with, making the mitigation ineffective and resulting in minor impacts. If allowed to continue, this non-compliance could result in a significant impact over time. A non-compliance may also include one or more of the aspects or a mitigation measure are not complied with and the implementation of a mitigation measure is deficient or non-existent, resulting in significant impact(s), or there is immediate threat of major, irreversible environmental damage or property loss. The protocol outlined above for an NCR shall be completed in the event non-compliance is identified by a CPUC/BLM EM and/or SDG&E LEI.

All non-compliance activity will be reported by Dudek and/or SDG&E LEI to the CPUC Project Manager and/or BLM Project Manager via immediate notification or daily or weekly reporting based on the severity of the non-compliance. Based on the severity or pattern of non-compliance activity, the CPUC Project Manager and/or BLM Project Manager has the authority to shut-down project construction activities. If a shutdown of construction activity occurs, construction shall not resume until the CPUC Project Manager and/or BLM Project Manager authorizes it to do so. No Dudek personnel has the authority to shut down or restart construction activities on a

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component- or project-wide scale. However, the CPUC/BLM EM has the authority to redirect work if an immediate threat to safety or a sensitive resource is imminent.

## **4.2 Project Changes**

### **4.2.1 CPUC - Minor Project Refinement Request Process**

The CPUC Energy Division may approve requests for minor project refinements that may be necessary due to final engineering of the East County Substation Project so long as such minor project refinements are located within the geographic boundary of the study area of the EIR/EIS and do not, without mitigation, result in a new significant impact or a substantial increase in the severity of a previously identified significant impact based on the criteria used in the environmental document; conflict with any mitigation measure or applicable law or policy; or trigger an additional permit requirement. SDG&E shall seek any other project refinements by a petition to modify.

Requests for staff approval of a refinement must be made in writing and should include the following:

- A detailed description of the proposed refinements, including an explanation of why the refinements are necessary, and a reference to the approved documents.
- Photos, maps, and other supporting documentation illustrating the difference between: the existing conditions in the area, the approved project, and the proposed refinements.
- The potential impacts of the proposed refinements, including a discussion of each environmental issue area that could be affected by the refinements with accompanying verification that there will be no substantial increase in the severity of any previously identified significant impacts to resources affected by the project and no new significant impacts, after application of previously adopted mitigation.
- Whether the refinements conflict with any applicant proposed measures or mitigation measures.
- Whether the refinements conflict with any applicable guideline, ordinance, code, rule, regulation, order, decision, statute or policy.
- Water/wetland/storm water related resource information if the refinements would result in any additional land disturbance, road distance or width, changes to jurisdictional delineation of waters, or changes to water protection best management practices.
- Date of expected construction at the refinements site area.

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The CPUC project manager may request additional information or a site visit in order to process the request.

Possible examples of refinements that may be approved by staff after final engineering include, but are not limited to:

- Adding a temporary extra work area (no more than 60 days of use) or substituting a work area, including lay-down and staging, for another work area that is as suitable as or more suitable than the originally proposed work area. The temporary extra work area or substitute work area must be located in a disturbed area with no sensitive resources or sensitive land uses adjacent to the proposed area, must not create any permanent impacts, and must be restored to either its initial condition or an improved condition.
- Adjusting the alignment of a project within the study area that was utilized in the original environmental analysis to avoid unanticipated impacts related to cultural artifacts, buried utility infrastructure, hazardous and toxic substances, and other land use impacts including effects on homeowners, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.
- Adjusting the alignment of a project within the study area that was utilized in the original environmental analysis to avoid or adapt to conditions on the ground that vary from the conditions that existed at the time of the original environmental analysis, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.

To initiate a project refinement request, the Holder will fill out a Project Refinement Request Form (see Attachment E), prepare the appropriate supporting documentation, and obtain the required signatures. SDG&E will complete and submit the Project Refinement Request Form and supporting documentation by email (scanned copy) to CPUC with a copy to Dudek.

### **4.2.2 Variance Requests - BLM**

A system of three variance levels (Levels 1, 2, and 3) will be used to categorize and process variance requests. The three variance levels, the review and distribution process, and the decision-making authority proposed for each level are discussed in the following sections. A sample Variance Request Form is provided in Attachment F.



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## **Level 1 Variances (Field Decisions)**

Level 1 variances are minor changes to Project specifications, construction methods, or mitigation measures that provide equal or better protection to environmental resources or better constructability. Level 1 variances may also be used to document and disseminate agency-directed changes to mitigation measures.

To initiate a Level 1 variance request, SDG&E's representative will fill out a Variance Request Form using the form in Attachment F and obtain the appropriate signatures. SDG&E's representative will then contact the BLM Project Manager to review the proposed change. SDG&E's representative and the BLM Project Manager will work together to evaluate the site-specific situation and determine if the variance request is appropriate.

The BLM may approve a Level 1 variance request if the results of implementing the change will provide equal or better protection for the resource than the original mitigation measure or if the original mitigation measure is not applicable to that specific site.

If the requested variance exceeds the Level 1 criteria, the BLM will inform SDG&E's representative that a Level 2 or Level 3 variance request is required.

## **Level 2 Variances**

All level 2 variances must also be approved by BLM and in some cases may require NEPA to be conducted. Generally, the actions linked to Level 2 variance are connected to permits, mitigation measures, off site habitat mitigation thresholds, and require oversight for conformance monitoring. Level 2 variance requests generally involve project changes that would affect an area outside the previously approved work area, but within the areas previously surveyed for cultural resources, sensitive species, and biological resources. Level 2 variance requests typically require the review of supplemental documents, correspondence, and records.

To initiate a Level 2 variance request, SDG&E will fill out a Variance Request Form, prepare the appropriate supporting documentation, and obtain the required signatures. SDG&E's representative will complete and submit the Variance Request Form and supporting documentation by e-mail (scanned copy) or fax to the with a copy to BLM and Dudek.

The variance may be implemented in the field as soon as the approved variance is received. Verbal approval for Level 2 variance requests will not be granted.

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### **Level 3 Variances**

Level 3 variance requests generally involve project changes that would affect an area outside the previously approved work area that are outside the areas previously surveyed for cultural resources, sensitive species, and biological resources, or one that would change the function, structure, technology required, or other part of the project previously approved in the ROD. Level 3 variances may need to be implemented through an amendment to the ROW grant.

To initiate a Level 3 variance request, SDG&E will fill out a Variance Request Form, prepare the appropriate supporting documentation, and obtain the required signatures. SDG&E will complete and submit the Variance Request Form and supporting documentation by e-mail (scanned copy) or fax to BLM and Dudek.

The variance may be implemented in the field as soon as the approved variance is received. Verbal approval for Level 3 variance requests will not be granted.

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## **5.0 RECORDS MANAGEMENT**

Daily inspection and weekly status reports filed by CPUC/BLM EMs will be used to prepare a final environmental compliance report following the completion of construction. The final report will provide a discussion on how each mitigation measure was implemented and include copies of submittals required for compliance. In addition, the success criteria will be evaluated and used for future projects.

### **5.1 Agency Records During Monitoring**

As described in Section 3.2, Dudek will develop a password-protected website for use by lead and responsible agencies during pre-construction and construction to facilitate the sharing of project documents, files, reports, and maps.

### **5.2 Public Access to Records**

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available by the CPUC for public inspection on request. In order to facilitate the public's awareness, the CPUC will post this MMCRP document, and also will make CPUC weekly reports and other pertinent project documents available on the project website, accessible at:

<http://www.cpuc.ca.gov/environment/info/dudek/ecosub/ecosub.htm>.

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## **6.0 MITIGATION MONITORING PROGRAM TABLES**

### **6.1 Using the Tables**

Sections 6.2 and 6.3 list the mitigation measures and APMs included in the FEIR/FEIS and referenced by the CPUC decision 12-04-022 dated April 19, 2012. Since publication of the FEIR/FEIS, Mitigation Measures CUL-1A, CUL-1D, and FF-4 were revised and included in an errata to the FEIR/FEIS. These minor revisions are reflected in the mitigation measure tables included herein. The mitigation measure/APM tables (separated by environmental issue area) and inclusive of agency/jurisdiction consultation and resulting permit requirements is the core document for environmental requirements on the project and will be the primary guideline for determining compliance with the MMCRP. The CPUC will use an expanded version of the mitigation measure/APM tables during the pre-construction planning and construction monitoring phases of the project to accurately track the status of mitigation measures. Attachment D lists the titles of all mitigation measures by the time of implementation of each measure.

During construction, a copy of the mitigation measure/APM tables with measures to be implemented during construction should be kept with each crew working on the ROW, and all supervisory staff working on the project should be familiar with its contents. In addition, copies of all applicable plans and permits compiled prior to construction as a result of the pre-construction measures (e.g., Stormwater Pollution Prevention Plan, Hazardous Substance Treatment Plan, USFWS BO) shall also be kept within the construction trailer and available to all project personnel working on the ROW and all supervisory staff working on the project should be familiar with their contents.

### **6.2 Mitigation Measures**

Tables 4 through 16 list the mitigation measures included in the FEIR/FEIS and referenced by the CPUC decision 12-04-022 dated April 19, 2012. Revisions to Mitigation Measures CUL-1A, CUL-1D, and FF-4 since publication of the FEIR/FEIS (included as errata to the FEIR/FEIS) are reflected in the mitigation measures below.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 4  
Mitigation Measures – Biological Resources**

Mitigation Measure	<b>BIO-1a. Confine all construction and construction-related activities to the minimum necessary area as defined by the final engineering plans.</b> All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas identified on the final engineering plans. The limits of the approved work space shall be delineated with stakes and/or flagging that shall be maintained throughout the construction period. An environmental monitor shall complete regular observations to ensure that all work is completed within the approved work limits, and in the event any work occurs beyond the approved limits, it shall be reported. During and after construction, entrances to access roads shall be gated to prevent the unauthorized use of these construction access roads by the general public. Signs prohibiting unauthorized use of the access roads shall be posted on these gates. In addition, to control unauthorized use of project access roads by off-road vehicle enthusiasts, the applicants shall provide funding to land management entities responsible for areas set aside for habitat conservation to provide for off-road vehicle enforcement patrols. The responsible land management entities will formulate what funding is reasonable to control unauthorized use of project access roads.
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	CPUC/ BLM to review final engineering plans and verify in the field that approved work limits are clearly delineated on the final engineering plans. An environmental monitor to ensure proper installation and maintenance of construction fencing and signage during construction. Environmental monitor to report to CPUC whether any work occurred outside of the approved work limits.
Effectiveness Criteria	Field verification that delineated construction areas correspond with final plans.
Responsible Agency	BLM and CPUC
Timing	Confirm implementation prior to any vegetation clearing or ground disturbance activities and throughout the construction period.
Interpretation & Approach	SDG&E will submit a map of existing gates and proposed gate locations within the Project area that will limit public access to the Project right-of-way. SDG&E shall provide funding to land management entities responsible for areas set aside for habitat conservation to provide for off-road vehicle enforcement patrols prior to energization. Verification that the funding amount provided by SDG&E is satisfactory to land management entities shall be provided via correspondence from land management entities to SDG&E with a copy submitted to CPUC.
Mitigation Measure	<b>BIO-1b. Conduct contractor training for all construction staff.</b> Prior to construction, all developer, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to implement the mitigation measures and comply with environmental regulations, including plant and wildlife species avoidance, impact minimization, and best management practices. Sign-in sheets and hard hat decals shall be provided that document contractor training has been completed for construction personnel.
Location	All areas disturbed by construction activities
Monitoring/Reporting Action	CPUC environmental monitor shall confirm that all project personnel have received project-specific training.
Effectiveness Criteria	Successful avoidance of unforeseen impacts and compliance with APMs and mitigation measures.
Responsible Agency	BLM and CPUC
Timing	Prior to and during construction.
Interpretation & Approach	None required.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 4  
Mitigation Measures – Biological Resources**

Mitigation Measure	<b>BIO-1c. Conduct biological construction monitoring.</b> An authorized biological monitor must be present at the construction sites during all ground disturbing and vegetation removal activities. The monitor shall survey the construction sites and surrounding areas for compliance with all environmental specifications. Weekly biological construction monitoring reports shall be prepared and submitted to the appropriate permitting and responsible agencies through the duration of the ground disturbing and vegetation removal construction phase. Monthly biological construction monitoring reports shall be prepared and submitted through the duration of project construction to document compliance with environmental requirements.
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	Weekly/Monthly biological construction monitoring reports submitted to BLM and CPUC.
Effectiveness Criteria	Identification of issues and solutions through regular monitoring and reporting. The qualifications of the qualified biologist shall be approved by BLM and CPUC.
Responsible Agency	BLM and CPUC
Timing	Weekly biological monitoring during ground disturbance and vegetation removal activities; Monthly biological monitoring for the remaining duration of construction.
Interpretation & Approach	Weekly and monthly biological monitoring reports shall include a summation of the daily monitoring reports completed by the biological monitor on site. Daily monitoring reports will be available upon request by the CPUC or BLM. The reports shall provide when the monitor was on site and the type of construction activities that were completed and whether all activity was completed within the approved limits of disturbance.
Mitigation Measure	<b>BIO-1d. Restore all temporary construction areas pursuant to a Habitat Restoration Plan.</b> All temporary work areas not subject to long-term use or ongoing vegetation maintenance shall be revegetated with native species characteristic of the adjacent native vegetation communities in accordance with a Habitat Restoration Plan. A habitat restoration specialist will be designated and approved by the California Public Utilities Commission and Bureau of Land Management and will determine the most appropriate method of restoration. Restoration techniques may include: hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. The Habitat Restoration Plan shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. At the completion of project construction, all construction materials shall be completely removed from the site. All temporary construction access roads shall be permanently closed and restored. Topsoil located in areas to be restoration would be conserved and stockpiled during the excavation process for use in the restoration. Wherever possible, vegetation would be left in place to avoid excessive root damage to allow for natural recruitment following construction. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the CPUC or BLM (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the CPUC or BLM, the temporary impact shall be considered a permanent impact and compensated accordingly (see MM BIO-1e).
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	BLM and CPUC shall review habitat restoration plans, habitat acquisition plans, and long-term habitat management plans, and ensure their implementation. BLM/CPUC biological monitor shall confirm that proposed habitat restoration mitigation plans are implemented.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 4  
Mitigation Measures – Biological Resources**

Effectiveness Criteria	Habitat restoration plans are implemented and meet success criteria. Long-term habitat management is provided for all mitigation sites.
Responsible Agency	BLM and CPUC
Timing	Plan submitted to CPUC /BLM for review 90 days prior to ground disturbance activities. Restoration will be initiated at earliest opportunity upon completion of soil-disturbing activities.
Interpretation & Approach	None required.
Mitigation Measure	<b>BIO-1e. Provide habitat compensation or restoration for permanent impacts to native vegetation communities.</b> Permanent impact to all native vegetation communities shall be compensated through a combination habitat compensation and habitat restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Habitat compensation shall be accomplished through agency-approved land preservation or mitigation fee payment for the purpose of habitat compensation of lands supporting comparable habitats to those lands impacted by the ECO Substation Project. Land preservation or mitigation fee payment for habitat compensation must be completed within 18 months of permit issuance. Habitat restoration may be appropriate as compensation for permanent impacts provided that restoration is demonstrated to be feasible and the restoration effort is implemented pursuant to a Habitat Restoration Plan, which includes success criteria and monitoring specifications as described above for Mitigation Measure BIO-1d. The Habitat Restoration Plan shall be approved by the permitting agencies prior to construction of the project. All habitat compensation and restoration used as mitigation for the ECO Substation Project on public lands shall be located in areas designated for resource protection and management. All habitat compensation and restoration used as mitigation for the ECO Substation Project on private lands shall include long-term management and legal protection assurances.
Location	On the ECO Substation Project site or on to-be-identified mitigation parcels.
Monitoring/Reporting Action	Habitat restoration plans are implemented and meet success criteria. Long-term habitat management is provided for all mitigation sites.
Effectiveness Criteria	For habitat preservation, it shall meet the minimum compensation standards on an acre-for-acre, in-kind basis or as otherwise required by the agencies. For habitat restoration, the habitat restoration plan shall specify success criteria. Long-term management assurances and legal protection mechanisms shall satisfy agency requirements.
Responsible Agency	BLM and CPUC
Timing	Habitat mitigation lands shall be identified and approved within 1 year of the initiation of project construction. Long-term management and legal protection for mitigation lands shall be in place no later than 18 months after the initiation of project construction. Habitat restoration plan(s), if applicable, shall be submitted to CPUC/ BLM for review within 1 year of the initiation of project construction. Restoration, if applicable, shall be initiated no later than 18 months after the initiation of project construction.
Interpretation & Approach	Off-site mitigation parcels need not be acquired prior to construction; however, the assurance that there are willing sellers for mitigation lands is necessary. Mitigation parcels must be secured prior to energization. Permanent impact areas will be restored at the end of the construction process in accordance with the approved SWPPP. The term "restoration" does not apply to permanent impacts.
Mitigation Measure	<b>BIO-1f. Implement fire prevention best management practices during construction and operation activities.</b> Fire prevention best management practices shall be implemented during construction and operation of the project as specified by the Construction Fire Prevention/Protection Plan (to be developed as required under Mitigation Measure FF-1)



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**Table 4  
Mitigation Measures – Biological Resources**

	and Wildland Fire Prevention and Fire Safety Electric Standard Practice Operation and Maintenance Plan (to be revised as required under Mitigation Measure FF-2).
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	CPUC and BLM will review SDG&E's Construction Fire Prevention/Protection Plan and ensure its implementation.
Effectiveness Criteria	Implementation of the plan. Limit work during Red Flag Warnings. Provide evidence of coordination with applicable fire authorities.
Responsible Agency	BLM and CPUC
Timing	Plan effective throughout construction.
Interpretation & Approach	Provide verification that the Construction Fire Prevention/Protection Plan was provided to San Diego Rural Fire District and other applicable fire authorities for review and comment. Construction will cease only in those areas where the Red Flag warning applies.
<b>Mitigation Measure</b>	<b>BIO-1g. Prepare and implement a Stormwater Pollution Prevention Plan.</b> Prepare a Stormwater Pollution Prevention Plan pursuant to the specifications described in Mitigation Measure HYD-1.
Location	All areas disturbed by construction activities
Monitoring/Reporting Action	BLM and CPUC will review SDG&E's SWPPP and ensure its implementation.
Effectiveness Criteria	Construction and BMPs in place during construction, and kept operating as long as needed. Mitigation measure is effective if water quality near the project is maintained.
Responsible Agency	BLM and CPUC
Timing	Prior to and during construction.
Interpretation & Approach	SDG&E shall provide access to the SWPPP and documentation to the CPUC and BLM prior to construction verifying the SWPPP has been submitted to the RWQCB. Access to subsequent amendments to the SWPPP shall be provided to the CPUC and BLM within 48 hours of the SWPPP amendment being submitted to the RWQCB. Access to the Storm Water Construction Site Inspection Report Forms completed following a storm event will be posted in the Storm Water Multiple Application and Report Tracking System (SMARTS) to be accessed by the CPUC and BLM within 48 hours of a storm event.
<b>Mitigation Measure</b>	<b>BIO-2a. Limit temporary and permanent impacts to jurisdictional features to the minimum necessary as defined by the final engineering plans.</b> Obtain and implement the terms and conditions of agency permit(s) for unavoidable impacts to jurisdictional wetlands and waters. All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas within the approved work limits identified on the final engineering plans. The limits of the approved work space shall be delineated with stakes and/or flagging that shall be maintained throughout the construction period. The project applicant shall obtain applicable permits and provide evidence of permit approval, which may include but not be limited to a Clean Water Act Section 404 Permit, a Clean Water Act Section 401 water quality certification, and a Section 1602 streambed alteration agreement with the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Game for impacts to jurisdictional features prior to project construction. The terms and conditions of these authorizations shall be implemented.
Location	All areas disturbed by construction activities.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 4  
Mitigation Measures – Biological Resources**

Monitoring/Reporting Action	BLM/CPUC to review final engineering plans. CPUC/BLM EM's to verify proper installation of construction fencing and signage. SDG&E provide evidence that applicable permits have been obtained. CPUC/ BLM to document compliance two weeks prior to ground disturbance activities within jurisdictional waters.
Effectiveness Criteria	Field verification that delineated construction areas correspond with final plans. Documentation of permit compliance to be provided to CPUC and BLM.
Responsible Agency	BLM and CPUC
Timing	Prior to any vegetation clearing or ground disturbance activities within jurisdictional waters.
Interpretation & Approach	None required.
Mitigation Measure	<b>BIO-2b. Implement habitat creation, enhancement, preservation, and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands.</b> Temporary and permanent impacts to all jurisdictional resources shall be compensated through a combination habitat creation (i.e., establishment), enhancement, preservation, and/or and restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Any creation enhancement, preservation, and/or restoration effort shall be implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. A habitat restoration specialist will be designated and approved by the permitting agencies and will determine the most appropriate method of restoration. Restoration techniques may include hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the CPUC or BLM (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the CPUC or BLM, the temporary impact shall be considered a permanent impact and compensated accordingly. All habitat creation and restoration used as mitigation for the Proposed ECO Substation Project on public lands shall be located in areas designated for resource protection and management. All habitat creation and restoration used as mitigation for the project on private lands shall include long-term management and legal protection assurances.
Location	Identified habitat creation and/or restoration areas on the ECO Substation Project site or at off-site mitigation parcel(s)
Monitoring/Reporting Action	Habitat restoration plans are implemented and meet success criteria. Long-term habitat management is provided for all mitigation sites.
Effectiveness Criteria	The habitat restoration plan shall specify success criteria. Long-term management assurances and legal protection mechanisms shall satisfy agency requirements.
Responsible Agency	BLM and CPUC
Timing	If off-site mitigation lands are utilized, they shall be identified and approved within 1 year of the initiation of project construction. Long-term management and legal protection for mitigation lands shall be in place no later than 18 months after the initiation of project construction. Habitat restoration plan(s) shall be submitted to CPUC/ BLM for review within 1 year of the initiation of project construction. Restoration shall be initiated no later than 18 months after the initiation of project construction.
Interpretation & Approach	Off-site mitigation parcels need not be acquired prior to construction; however, the assurance that there are willing sellers for mitigation lands is necessary. Mitigation parcels must be secured prior to energization.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 4  
Mitigation Measures – Biological Resources**

Mitigation Measure	<b>BIO-2c. Where drainage crossings are unavoidable, construct access roads at right angles to drainages.</b> Unless not possible due to existing landforms or site constraints, access roads shall be built perpendicular to drainages to minimize the impacts to these resources and prevent impacts along the length of jurisdictional features.
Location	All drainage crossing in the ECO Substation Project area.
Monitoring/Reporting Action	CPUC/BLM to review final engineering plans to ensure measure is implemented to the extent feasible.
Effectiveness Criteria	Ensure access roads are built perpendicular to drainages to the extent feasible.
Responsible Agency	BLM and CPUC
Timing	Prior to and during construction.
Interpretation & Approach	According to the BIO-2a and BIO-5b, mitigation land does not need to be acquired prior to construction.
Mitigation Measure	<b>BIO-3a. Prepare and implement a Noxious Weeds and Invasive Species Control Plan.</b> A Noxious Weeds and Invasive Species Control Plan shall be prepared and reviewed by the California Public Utilities Commission/Bureau of Land Management and applicable permitting agencies. On BLM lands, the plan shall be consistent with an Integrated Pest Management approach per the Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (2007). The plan shall be implemented during all phases of project construction and operation. The plan shall include best management practices to avoid and minimize the direct or indirect effect of the establishment and spread of invasive plant species during construction. Implementation of specific protective measures shall be required during construction, such as cleaning vehicles prior to off-road use, using weed-free imported soil/material, restricted vegetation removal and requiring topsoil storage. Development and implementation of weed management procedures shall be used to monitor and control the spread of weed populations along the construction access and transmission line right-of-ways. Vehicles used in transmission line construction shall be cleaned prior to operation off of maintained roads. Existing vegetation shall be cleared only from areas scheduled for immediate construction work and only for the width needed for active construction activities. Noxious weed management shall be conducted annually to prevent the establishment and spread of invasive plant species. This shall include weed abatement efforts, targeted at plants listed as invasive exotics by the California Exotic Plant Pest Council in their most recent "A" or "Red Alert" list. Only herbicides approved by BLM in California will be used on BLM lands. Herbicide application can only occur on BLM lands with an approved Pesticide Use Proposal (PUP). Pesticide use should be limited to non-persistent pesticides and should only be applied in accordance with label and application permit directions and restrictions for terrestrial and aquatic applications.
Location	Entire project area.
Monitoring/Reporting Action	BLM and CPUC to verify that plan has been submitted and is implemented. Evidence provided to BLM/CPUC that the plan has been reviewed by applicable permitting agencies.
Effectiveness Criteria	Noxious Weeds and Invasive Species Control Plan prepared and successfully implemented.
Responsible Agency	BLM/CPUC
Timing	Plan submitted to BLM, CPUC and applicable permitting agencies for review 90 days prior to initiation of project construction. Plan shall be implemented throughout construction and throughout operations.
Interpretation & Approach	Implement Noxious Weed and Invasive Plant Control Plan as approved by the CPUC and other appropriate agencies.

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**Table 4  
Mitigation Measures – Biological Resources**

Mitigation Measure	<b>BIO-4a. Prepare and implement a Dust Control Plan.</b> The project proponent shall (a) pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; (b) pre-water sites up to 48 hours in advance of clearing to control fugitive dust; (c) reduce the amount of disturbed area where feasible; (d) spray all dirt stock-pile areas daily as needed; (e) cover loads in haul trucks or maintain at least 6 inches of free-board when traveling on public roads; (f) pre-moisten, prior to transport, import and export dirt, sand, or loose materials; (g) sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets or wash trucks and equipment before entering public streets; (h) plant vegetative ground cover in disturbed areas to meet the criteria of the revegetation plan; (i) apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands that are unused for 14 consecutive days); and (j) prepare and file with the San Diego Air Pollution Control District, Bureau of Land Management and California Public Utilities Commission a Dust Control Plan that describes how these measures would be implemented and monitored at all locations of the project. This plan shall be developed consistent with the requirements of Mitigation Measure AQ-1.
Location	All construction areas including staging areas.
Monitoring/Reporting Action	Review Dust Control Plan. Verify submittal to local air district. Inspect activities for dust control.
Effectiveness Criteria	Dust emissions are reduced. Effectiveness can be monitored by monitoring implementation of the control measures.
Responsible Agency	BLM and CPUC
Timing	Plan submitted to BLM and CPUC for review 90 days prior to initiation of project construction. Evidence shall also be provided that SDG&E has submitted the plan for file to SDPACD. Plan shall be implemented throughout construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>BIO-5a. Install fencing or flagging around identified special-status plant species populations in the construction areas.</b> Prior to the start of construction, a qualified biologist shall conduct focused surveys during the appropriate blooming period for special-status plant species for all construction areas. All of the special-status plant locations shall be recorded using a Global Positioning System (GPS), which will be used to site the avoidance fencing/flagging. Special-status plant species shall be avoided to the maximum extent possible by all construction activities. The boundaries of all special-status plant species to be avoided shall be delineated in the field with clearly visible fencing or flagging. The fencing/flagging shall be maintained for the duration of project construction activities.
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	BLM/CPUC monitor to ensure construction fencing has been installed at necessary locations based on the results of the focused surveys for special-status plant species. The results of the focused surveys for special-status plant species are to be provided to CPUC/BLM by a qualified biologist within 48 hours of completing the survey.
Effectiveness Criteria	Field verification that delineated plant populations are consistent with baseline data and focused surveys. The qualifications of the qualified biologist shall be approved by the CPUC
Responsible Agency	BLM and CPUC
Timing	Prior to any vegetation clearing or ground disturbance activities.
Interpretation & Approach	A special-status plant species report documenting the results of the surveys shall include at

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 4  
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	a minimum the methods utilized for completing the special-status plant surveys, GPS point locations of special-status plant species identified, and measures to reduce indirect impacts during construction.
Mitigation Measure	<b>BIO-5b. Implement special-status plant species compensation.</b> Impacts to special-status plant species shall be maximally avoided. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation. Where off-site land preservation is biologically preferred, the land shall contain comparable special-status plant resources as the impacted lands and shall include long-term management and legal protection assurances to the satisfaction of the CPUC or BLM. Land preservation must be completed within 18 months of permit issuance. Where salvage and relocation is demonstrated to be feasible and biologically preferred, it shall be conducted pursuant to an agency-approved plan that details the methods for salvage, stockpiling, and replanting, as well as the characteristics of the receiver sites. Any salvage and relocation plans shall be approved by the permitting agencies prior to project construction. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. Success criteria and monitoring shall also be included in the plan. If salvage and relocation is not possible to the satisfaction of the CPUC or BLM, off-site land preservation shall be required.
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	BLM and CPUC shall review habitat restoration plans, habitat acquisition plans, and long-term habitat management plans, and ensure their implementation. CPUC/BLM biological monitor shall confirm that proposed habitat restoration mitigation plans are implemented.
Effectiveness Criteria	For habitat preservation, it shall meet the minimum compensation standards on an acre-for-acre or population basis or as otherwise required by the agencies. For salvage and relocation, the agency approved plan shall specify success criteria. Long-term management assurances and legal protection mechanisms shall satisfy agency requirements.
Responsible Agency	BLM and CPUC
Timing	Habitat mitigation lands shall be identified and approved within 1 year of the initiation of project construction. Long-term management and legal protection for mitigation lands shall be in place no later than 18 months after the initiation of project construction. Salvage and relocation plan(s), if applicable, shall be submitted to CPUC/ BLM for review 90 days prior to the initiation of project construction. Salvage and relocation, if applicable, shall be initiated during project construction.
Interpretation & Approach	Off-site mitigation parcels need not be acquired prior to construction; however, the assurance that there are willing sellers for mitigation lands is necessary. Mitigation parcels must be secured prior to energization. Long-term management and legal protection for mitigation lands shall be in place no later than 18 months after permit issuance.
Mitigation Measure	<b>BIO-7a. Cover and/or provide escape routes for wildlife from excavated areas and monitor these areas daily.</b> All steep trenches and excavations during construction shall be inspected twice daily (i.e., morning and evening) by a qualified biologist to monitor for wildlife entrapment. Large/steep excavations shall be covered and/or fenced nightly to prevent wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.
Location	All construction excavations and trenches
Monitoring/Reporting Action	Verification of measure implementation shall be provided to CPUC/ BLM by biological construction monitor. CPUC/BLM monitor to verify measure is being implemented during construction.

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**Table 4  
Mitigation Measures – Biological Resources**

Effectiveness Criteria	Biological construction monitoring observations, reporting, and coordination/communication with construction personnel.
Responsible Agency	BLM and CPUC
Timing	During all subsurface construction activities.
Interpretation & Approach	None required.
<b>Mitigation Measure</b>	<b>BIO-7b. Enforce speed limits in and around all construction areas.</b> Vehicles shall not exceed 15 miles per hour on unpaved roads and the right-of-way accessing the construction site or 10 miles per hour during the night.
Location	All construction areas and access ways of the ECO Substation Project area.
Monitoring/Reporting Action	Verification of establishment and enforcement mechanisms shall be provided to BLM/CPUC. BLM/CPUC to ensure speed limits are reduced to within permitted limits during construction.
Effectiveness Criteria	Contractor training and biological construction monitoring oversight and field observations.
Responsible Agency	BLM and CPUC
Timing	During all construction activities.
Interpretation & Approach	None required.
<b>Mitigation Measure</b>	<b>BIO-7c. Minimize night construction lighting adjacent to native habitats.</b> Lighting of construction areas at night shall be the minimum necessary for personnel safety and shall be low illumination, selectively placed, and directed/shielded appropriately to minimize lighting in adjacent native habitats.
Location	All construction areas adjacent to native vegetation
Monitoring/Reporting Action	Verification of night lighting specifications to be provided to BLM/CPUC. The specifications shall include light placement, illumination, and direction light will be oriented. BLM/CPUC environmental monitors to verify that night lighting adjacent to native habitats is minimized.
Effectiveness Criteria	BLM/CPUC to ensure that commitments have been incorporated into construction contract specifications. An environmental monitor to inspect periodically to ensure correct placement of lighting to prevent night lighting impacts to sensitive habitats.
Responsible Agency	BLM and CPUC
Timing	During construction.
Interpretation & Approach	None required.
<b>Mitigation Measure</b>	<b>BIO-7d. Prohibit littering and remove trash from construction areas daily.</b> Littering shall not be allowed by the project personnel. All food-related trash and garbage shall be removed from the construction sites on a daily basis.
Location	All construction areas
Monitoring/Reporting Action	Verification littering and trash control measures have been included in the project contractor specifications and is presented as part of the environmental awareness training. Documentation of compliance with this measure shall be provided to BLM/CPUC throughout construction.
Effectiveness Criteria	BLM/CPUC to ensure that commitments have been incorporated into construction contract specifications. An environmental monitor to inspect periodically to ensure measures are being implemented to remove litter and trash from the construction area on a daily basis.
Responsible Agency	BLM and CPUC
Timing	During construction.
Interpretation & Approach	All trash will be removed daily from remote Project locations; however, trash will be removed

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 4  
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	as needed from the stationary construction areas, such as the substations, laydown yards, and office areas. Trash in these locations will be properly managed in bins, covered, and secured to prevent trash from leaving the site.
Mitigation Measure	<b>BIO-7e. Prohibit the harm, harassment, collection of, or feeding of wildlife.</b> Project personnel shall not harm, harass, collect, or feed wildlife. No pets shall be allowed in the construction areas.
Location	All construction areas
Monitoring/Reporting Action	Verification that appropriate measures have been included in the project contractor specifications and are presented as part of the environmental awareness training. Documentation of compliance with this measure shall be provided to BLM/CPUC throughout construction.
Effectiveness Criteria	BLM/CPUC to ensure that commitments have been incorporated into construction contract specifications. BLM/CPUC to inspect periodically to ensure measures are being implemented.
Responsible Agency	BLM and CPUC
Timing	During construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>BIO-7f. Obtain and implement the terms of agency permit(s) with jurisdiction federal or state listed species.</b> If determined necessary, the applicant shall obtain a biological opinion through Section 7 consultation between the Bureau of Land Management and U.S. Fish and Wildlife Service for impacts to federally listed wildlife species and a Section 2081 permit (or consistency determination) from the California Department of Fish and Game for impacts to state listed wildlife species resulting from this project, if applicable. The terms and conditions included in these authorizations shall be implemented, which may include seasonal restrictions, relocation, monitoring/reporting specifications, and/or habitat compensation through restoration or acquisition of suitable habitat.
Location	Terms and conditions of permits may apply anywhere within the ECO Substation Project site or on off-site mitigation parcels, but would mostly relate to the occupied Quino checkerspot butterfly habitat areas and the designated critical habitat for Quino checkerspot butterfly.
Monitoring/Reporting Action	Issued Section 7 biological opinion to be provided to CPUC/ BLM to document compliance.
Effectiveness Criteria	Biological construction monitoring and reporting to provide documentation of permit compliance. Criteria for effectiveness to be identified in permit.
Responsible Agency	BLM and CPUC
Timing	Prior to any vegetation clearing or ground disturbance activities in or around suitable Quino checkerspot butterfly habitat or designated Quino checkerspot butterfly critical habitat.
Interpretation & Approach	None required.
Mitigation Measure	<b>BIO-7g. Conduct protocol surveys for Quino checkerspot butterfly within 1 year prior to project construction activities in occupied habitat.</b> SDG&E shall conduct pre-construction protocol surveys for Quino checkerspot butterfly within 1 year prior to construction activities, or as required by U.S. Fish and Wildlife Service, in any area known to support the species. Surveys shall be conducted by a qualified, permitted biologist in accordance with the most currently accepted protocol survey method. Results shall be reported to the U.S. Fish and Wildlife Service within 45 days of the completion of the survey. The surveys that were conducted in the spring of 2010 will be valid for construction in 2012 so long as construction commences before May 2012. If construction is not scheduled to

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**Table 4  
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	commence before May 2012, SDG&E will contact the U.S. Fish and Wildlife Service to discuss whether an additional survey is warranted.
Location	Occupied Quino checkerspot butterfly habitat along the 138 kV transmission line project component of the ECO Substation Project area.
Monitoring/Reporting Action	Submittal of 45-day report to USFWS, CPUC, and BLM.
Effectiveness Criteria	Surveys to be conducted pursuant to accepted protocol survey method by qualified, permitted biologist.
Responsible Agency	BLM and CPUC
Timing	Within 1 year of the initiation of project construction in occupied habitat.
Interpretation & Approach	SDG&E conducted protocol level surveys in the Spring of 2011 in consultation with the USFWS and surveys will be valid for construction in 2013 so long as construction commences before February 2013.
Mitigation Measure	<b>BIO-7h. Provide compensation for temporary and permanent impacts to Quino checkerspot butterfly habitat through conservation and/or restoration.</b> Temporary and permanent impact to Quino checkerspot butterfly shall be compensated through a combination of habitat compensation and habitat restoration at a minimum of a 2:1 mitigation ratio for non-critical habitat and a minimum of a 3:1 mitigation ratio for critical habitat, or as required by the permitting agencies. Habitat compensation shall be accomplished through U.S. Fish and Wildlife Service-approved land preservation or mitigation fee payment for the purpose of habitat compensation of lands supporting Quino checkerspot butterfly. Land preservation or mitigation fee payment for habitat compensation must be completed within 18 months of permit issuance. Habitat restoration may be appropriate as habitat compensation provided that the restoration effort is demonstrated to be feasible and implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to project construction. All habitat compensation and restoration used as mitigation for the Proposed PROJECT on public lands shall be located in areas designated for resource protection and management. All habitat compensation and restoration used as mitigation for the Proposed PROJECT on private lands shall include long-term management and legal protection assurances.
Location	On the ECO Substation Project site or on to-be-identified mitigation parcels.
Monitoring/Reporting Action	CPUC/ BLM/USFWS to verify that habitat preservation and/or habitat restoration has been identified and implemented.
Effectiveness Criteria	For habitat preservation, it shall meet the minimum compensation standards on an acre-for-acre basis or as otherwise required by the agencies. For habitat restoration, the habitat restoration plan shall specify success criteria. Long-term management assurances and legal protection mechanisms shall satisfy agency requirements.
Responsible Agency	BLM and CPUC
Timing	Habitat mitigation lands shall be identified and approved within 1 year of the initiation of project construction. Long-term management and legal protection for mitigation lands shall be in place no later than 18 months after the initiation of project construction. Habitat restoration plan(s), if applicable, shall be submitted to CPUC/BLM for review within 1 year of the initiation of project construction. Restoration, if applicable, shall be initiated no later than 18 months after the initiation of project construction.



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Interpretation & Approach	Off-site mitigation parcels need not be acquired prior to construction; however, the assurance that there are willing sellers for mitigation lands is necessary. Mitigation parcels must be secured prior to energization.
Mitigation Measure	<b>BIO-7i. Final design of transmission towers and access roads through Quino checkerspot butterfly critical habitat shall maximally avoid host plants for Quino checkerspot butterfly.</b> The final design of the ECO Project through Quino checkerspot butterfly habitat shall maximally avoid and minimize habitat resources used by the species. SDG&E shall explore alternate tower locations, reduced road widths, reduced vegetation maintenance, and other design modifications and obtain agency approval of the final design through this area.
Location	Occupied Quino checkerspot butterfly habitat along the 138 kV transmission line project component of the ECO Substation Project area.
Monitoring/Reporting Action	BLM/CPUC to approve final engineering plans to ensure impacts to critical habitat areas were avoided to the maximum extent feasible.
Effectiveness Criteria	Ensure final design maximizes avoidance of critical habitat to the extent feasible.
Responsible Agency	BLM and CPUC
Timing	Prior to any vegetation clearing or ground disturbance activities within Critical Habitat.
Interpretation & Approach	Final engineering plans to ensure impacts to critical habitat areas will be avoided to the maximum extent feasible per the USFWS determination.
Mitigation Measure	<p><b>BIO-7j. Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds.</b></p> <p>If the project must occur during the avian breeding season (February 1st to August 31st, and as early as January 1 for some raptors), SDG&amp;E should work with the California Department of Fish and Game (CDFG), Bureau of Land Management, and the U.S. Fish and Wildlife Service (USFWS) to prepare a Nesting Bird Management, Monitoring, and Reporting Plan (NBMMRP) to address avoidance of impacts to nesting birds.</p> <p>SDG&amp;E will submit to the agencies the NBMMRP (see following for details) for review and approval prior to commencement of the project during the breeding season. The NBMMRP should include the following:</p> <ol style="list-style-type: none"> <li>1. Nest Survey Protocols describing the nest survey methodologies</li> <li>2. A Management Plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks</li> <li>3. A Monitoring and Reporting Plan detailing the information to be collected for incorporation into a regular Nest Monitoring Log (NML) with sufficient details to enable USFWS and CDFG to monitor SDG&amp;E's compliance with Fish and Game Code Sections 3503, 3503.5, 3511, and 3513</li> <li>4. A schedule for the submittal (usually weekly) of the NML</li> <li>5. Standard buffer widths deemed adequate to avoid or minimize significant project-related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks</li> <li>6. A detailed explanation of how the buffer widths were determined</li> <li>7. All measures SDG&amp;E will implement to preclude birds from utilizing project-related structures (i.e., construction equipment, facilities, or materials) for nesting.</li> </ol> <p>To determine presence of nesting birds that the project activities may affect, surveys should be conducted beyond the project area—300 feet for passerine birds and 500 feet for raptors. The survey protocols should include a detailed description of methodologies utilized by CDFG-approved avian biologists to search for nests and describe avian behaviors that</p>

# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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	<p>indicate active nests. The protocols should include but are not limited to the size of project corridor being surveyed, method of search, and behavior that indicates active nests. Each nest identified in the project area should be included in the NML. The NMLs should be updated daily and submitted to the CDFG weekly. Since the purpose of the NMLs is to allow the CDFG to track compliance, the NMLs should include information necessary to allow comparison between nests protected by standard buffer widths recommended for the project (300 feet for passerine birds, 500 feet for raptors) and nests whose standard buffer width was reduced by encroachment of project-related activities. The NMLs should provide a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. The NMLs will allow for tracking the success and failure of the buffers and will provide data on the adequacy of the buffers for certain species. SDG&amp;E will rely on its avian biologists to determine the appropriate standard buffer widths for nests within the project corridor/footprint to employ based on the sensitivity levels of specific species or guilds of avian species. The determination of the standard buffer widths should be site- and species-/guild-specific and data-driven and not based on generalized assumptions regarding all nesting birds. The determination of the buffer widths should consider the following factors:</p> <ol style="list-style-type: none"> <li>a. Nesting chronologies</li> <li>b. Geographic location</li> <li>c. Existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise)</li> <li>d. Type and extent of disturbance (e.g., noise levels and quality— punctuated, continual, ground vibrations—blasting-related vibrations proximate to tern colonies are known to make the birds flush the nests)</li> <li>e. Visibility of disturbance</li> <li>f. Duration and timing of disturbance</li> <li>g. Influence of other environmental factors</li> <li>h. Species' site-specific level of habituation to the disturbance.</li> </ol> <p>Application of the standard buffer widths should avoid the potential for project-related nest abandonment and failure of fledging, and minimize any disturbance to the nesting behavior. If project activities cause or contribute to a bird being flushed from a nest, the buffer must be widened.</p>
Location	In and around any construction activity in the project area (300 feet for passerine birds and 500 feet for raptors).
Monitoring/Reporting Action	Pre-construction nesting bird survey reports to be provided to CPUC/BLM 72 hours prior to construction. NBMMRP shall be prepared if the project must occur during the avian breeding season. Any nests identified shall be included in the NML, which will be updated daily and submitted to CDFG weekly.
Effectiveness Criteria	Site-specific avoidance measures, as necessary, to be identified in the survey report. In the event federal- or state-listed nesting birds are identified, SDG&E shall provide documentation of the recommendations that were provided by the USFWS and/or CDFG. If nests are identified, SDG&E avian biologists will determine appropriate buffer widths that are site- and species-/guild-specific and data-driven.
Responsible Agency	BLM and CPUC
Timing	Prior to construction during the nesting season.

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Interpretation & Approach	In the event nests are identified within proximity to construction activities, the appropriate buffer distance shall be determined by the SDG&E avian biologist. The CPUC and BLM shall be notified within 48 hours of nesting activity. Buffer distances and notification will be consistent with the terms and conditions in the NBMMRP. Where trees cannot be trimmed outside of the breeding or nesting seasons, a biological monitor would perform a pre-activity survey to determine the presence or absence of nesting birds. Reports regarding nesting bird surveys and nest locations will be provided to the CPUC and BLM pursuant to the NBMMRP.
Mitigation Measure	<b>BIO-10a. Design all transmission towers and lines to conform with Avian Power Line Interaction Committee standards.</b> The Proposed Project shall implement recommendations by the Avian Power Line Interaction Committee (2006), which will protect raptors and other birds from electrocution. These measures are sufficient to protect even the largest birds that may perch or roost on transmission lines or towers from electrocution.
Location	All areas of the ECO Substation Project site containing transmission towers and lines.
Monitoring/Reporting Action	BLM/CPUC to review final engineering plans.
Effectiveness Criteria	Ensure the final engineering design meets the effectiveness criteria documented by APLIC (2006)
Responsible Agency	BLM and CPUC
Timing	Prior to construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>BIO-10b. Develop and implement project-specific Avian Protection Plans.</b> Develop and implement an Avian Protection Plan related to wire, transmission tower, and facilities impacts from electrocution and collision of bird species. An Avian Protection Plan shall be developed jointly with the U.S. Fish and Wildlife Service and California Department of Fish and Game and shall provide the framework necessary for implementing a program to reduce bird mortalities and document actions. The Avian Protection Plan shall include the following: corporate policy, training, permit compliance, construction design standards, nest management, avian reporting system, risk assessment methodology, mortality reduction measures, avian enhancement options, quality control, public awareness, and key resources.
Location	All ECO Substation Project areas.
Monitoring/Reporting Action	BLM/CPUC to verify that plan has been submitted and is being implemented.
Effectiveness Criteria	Plan shall identify criteria to determine effectiveness.
Responsible Agency	BLM and CPUC
Timing	Plan that has been prepared jointly with USFWS shall be submitted to BLM/CPUC for review 90 days prior to initiation of project construction. Plan shall be implemented throughout project construction and operation.
Interpretation & Approach	None required.
Mitigation Measure	<b>BIO-11a. Conduct maintenance activities resulting in vegetation disturbance outside of the bird nesting season or conduct pre-construction nesting bird surveys.</b> Maintenance activities with the potential to result in direct or indirect habitat disturbance, most notably vegetation management, shall be conducted outside of the bird nesting season to the maximum extent practicable. Where avoidance is not possible, the project proponent shall conduct pre-construction nesting bird surveys consistent with the requirements of the NCCP to determine the presence/absence of active nests in or adjacent to construction areas. If active nests are identified, appropriate avoidance measures would be identified and implemented to

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**Table 4  
Mitigation Measures – Biological Resources**

	prevent disturbance to the nesting bird(s). If federal or state listed nesting birds are identified, the project proponent shall contact the U.S. Fish and Wildlife Service and/or California Department of Fish and Game to determine the appropriate course of action.
Location	All operations and maintenance areas associated with the substation site and transmission corridors.
Monitoring/Reporting Action	Pre-construction nesting bird survey reports to be completed 72 hours prior to completing maintenance activities that result in vegetation disturbance consistent with the requirements of the NCCP.
Effectiveness Criteria	Site-specific avoidance measures, as necessary, to be identified in the survey report.
Responsible Agency	BLM and CPUC
Timing	72 hours prior to maintenance activities during the nesting season.
Interpretation & Approach	This measure is associated with Operations and Maintenance activities, which will comply with protocol as set forth by the NCCP. CDFG and USFWS will be the responsible agencies for nesting birds during Operations and Maintenance.

**Table 5  
Mitigation Measures – Visual Resources**

Mitigation Measure	<b>VIS-1a. Reduce impacts at scenic highway and trail crossings.</b> At highway and trail crossings, structures shall be placed at the maximum feasible distance from the crossing to reduce visual impacts as long as other significant resources are not negatively affected.
Location	Where the transmission line would establish a new transmission corridor and be located within 0.5 mile of a County trail or pathway.
Monitoring/Reporting Action	CPUC to review construction plans before the start of construction and to verify that structures are placed at the maximum feasible distance from the Jewel Valley Trail and the Jewel Valley Road Pathway.
Effectiveness Criteria	Visual impacts to identified trails and pathways are minimized and transmission line structures are placed the maximum feasible distance from these facilities.
Responsible Agency	CPUC
Timing	CPUC to review construction plans before the start of construction and to verify compliance with plans during construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-1b. Reduce impacts at scenic view areas.</b> In scenic view areas (the Jewel Valley Trail and the Jewel Valley Road Pathway) transmission line structures would be placed to avoid sensitive features and/or allow conductors to clearly span the features, within limits of standard design where feasible.
Location	Transmission line structures and lines visible from the Jewel Valley Trail and the Jewel Valley Road Pathway.
Monitoring/Reporting Action	CPUC to review construction plans before the start of construction and to verify that structures are placed to avoid sensitive features
Effectiveness Criteria	Structures are sited to avoid sensitive features and visual impacts as scenic view areas are reduced.
Responsible Agency	CPUC

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**Table 5  
Mitigation Measures – Visual Resources**

Timing	CPUC to review construction plans before the start of construction and to verify compliance with plans during construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3a. Reduce visibility of construction activities and equipment.</b> If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, stationary construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Where practical, construction staging and storage will be screened with opaque fencing from close-range residential views. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 60 days before the start of construction.
Location	All stationary construction areas including staging areas and fly yards.
Monitoring/Reporting Action	CPUC and BLM to verify in the field during construction and following construction
Effectiveness Criteria	Stationary project construction sites, construction yards, and staging areas will be screened during construction, and all construction areas will appear in their original or improved condition following construction.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to confirm implementation during and following construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3b. Reduce construction night-lighting impacts.</b> SDG&E shall design and install all lighting at construction and storage yards and at staging areas and fly yards such that illumination of the project facilities, vicinity, and nighttime sky is minimized. The Construction Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. SDG&E shall submit a Construction Lighting Mitigation Plan to the CPUC and BLM for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SDG&E shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the CPUC and BLM. The Plan shall include but is not necessarily limited to the following: <ul style="list-style-type: none"> <li>• Lighting shall be designed so that exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated, and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary;</li> <li>• All lighting shall be of minimum necessary brightness consistent with worker safety; and</li> <li>• High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.</li> </ul>
Location	All static project construction sites associated with the proposed ECO Substation Project and transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM to review and approve the Construction Lighting Mitigation Plan before construction and to monitor implementation in the field during construction.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 5  
Mitigation Measures – Visual Resources**

Effectiveness Criteria	The visibility of light bulbs and reflectors at construction yards and staging areas is minimized from public viewing areas, and night lighting would not cause reflected glare and illumination beyond the construction site and into the nighttime sky to the extent feasible.
Responsible Agency	CPUC and BLM
Timing	SDG&E shall submit a Construction Lighting Mitigation Plan to the CPUC and BLM for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. CPUC and BLM to review and approve plan before the start of construction and confirm implementation of plan during construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3c. Reduce construction impacts to natural features.</b> No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.
Location	At all construction work areas of the proposed ECO Substation Project transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM monitors to ensure compliance with restrictions regarding paint and discoloring agents.
Effectiveness Criteria	No paint or permanent discoloring agents are detected and reported by CPUC monitors.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to monitor for compliance during construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3d. Reduce in-line views of land scars.</b> Construct access or spur roads at appropriate angles from the originating primary travel facilities to minimize extended in-line views of newly graded terrain, when feasible. Contour grading should be used where feasible to better blend graded surfaces with existing terrain. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days prior to the start of construction.
Location	All grading sites for access roads, spur roads, and ancillary facilities associated with the proposed ECO Substation Project and transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM to review construction plans before the start of construction and verify compliance during construction.
Effectiveness Criteria	In-line views of land scars from grading will be minimized.
Responsible Agency	CPUC and BLM.
Timing	CPUC and BLM to review construction plans before the start of construction and verify compliance during construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3e. Reduce visual contrast from unnatural vegetation lines.</b> In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for ongoing operation, maintenance, or access shall be returned to preconstruction conditions. In those cases where potential public access is opened by construction routes, SDG&E shall create barriers or fences to prevent public access and shall patrol construction routes to prevent vandalized access and litter cleanup until all areas where vegetation was removed are returned to pre-project state. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days before the start of construction.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 5  
Mitigation Measures – Visual Resources**

Location	All grading sites for access roads, spur roads, and ancillary facilities associated with the propose ECO Substation Project and transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM to review construction and restoration plans before the start of construction and to verify implementation following construction
Effectiveness Criteria	The occurrence of unnatural vegetation lines will be minimized and the resulting visual contrast will be minimal.
Responsible Agency	CPUC and BLM
Timing	SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days before the start of construction. CPUC and BLM to review construction and restoration plans before the start of construction and to verify implementation following construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3f. Minimize vegetation removal.</b> Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil located in areas to be restored shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil located in developed or disturbed areas is excluded from this measure.
Location	All project component sites where surface disturbance is proposed for the Proposed ECO Substation Project and transmission line corridors
Monitoring/Reporting Action	CPUC and BLM to review construction and restoration plans before the start of construction and to verify minimal vegetation removal during construction
Effectiveness Criteria	The occurrence of vegetation removal will be minimized and the resulting visual contrast will be minimal.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction and restoration plans before the start of construction and to verify minimal vegetation removal during construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3g. Reduce visual contrast associated with substation and ancillary facilities.</b> SDG&E shall submit to the CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structure buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to the CPUC for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include: <ul style="list-style-type: none"> <li>• Specification and 11 x 17-inch color simulations at life-size scale of the treatment proposed for use on project structures, including structures treated during manufacture</li> <li>• A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation)</li> <li>• Two sets of brochures and/or color chips for each proposed color</li> <li>• A detailed schedule for completion of the treatment</li> </ul>

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 5  
Mitigation Measures – Visual Resources**

	<ul style="list-style-type: none"> <li>Procedures to ensure proper treatment maintenance for the life of the project. SDG&amp;E shall not specify to the vendors the treatment of any buildings or structures treated during manufacture or perform the final treatment on any buildings or structures treated on site, until SDG&amp;E receives notification of approval of the Surface Treatment Plan by the CPUC. Within 30 days following the start of commercial operation, SDG&amp;E shall notify the CPUC that all buildings and structures are ready for inspection.</li> </ul>
Location	Applies to all permanent ancillary facilities (including substations) associated with the proposed ECO Substation Project.
Monitoring/Reporting Action	CPUC to review Surface Treatment Plan before the start of construction and to verify implementation following construction
Effectiveness Criteria	The occurrence of visual contrast from ancillary facilities will be minimized, and facilities will blend with the landscape to the extent feasible.
Responsible Agency	CPUC
Timing	CPUC to review Surface Treatment Plan before the start of construction and to verify implementation following construction.
Interpretation & Approach	None required.
Mitigation Measure	<p><b>VIS-3h. Screen substations and ancillary facilities.</b> SDG&amp;E shall provide a Final Screening/Landscape Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities and helps the facility blend in with the landscape. Similar to the use of berms in the Conceptual Landscape Plans prepared for the PEA, the use of berms to facilitate project screening may also be incorporated into the Final Plan. SDG&amp;E shall submit the Plan to the CPUC for review and approval at least 90 days before installing the landscape screening. If the CPUC notifies SDG&amp;E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&amp;E shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:</p> <ul style="list-style-type: none"> <li>An 11 x 17-inch color simulation of the proposed landscaping at 5 years</li> <li>A plan view to scale depicting the project and the location of screening elements</li> <li>A detailed list of any plants to be used, their size and age at planting, the expected time to maturity, and the expected height at 5 years and at maturity</li> <li>SDG&amp;E shall complete installation of the screening/landscape plan before the start of project operation</li> <li>SDG&amp;E shall notify the CPUC within 7 days after completing installation of the screening/landscape plan that the screening components are ready for inspection.</li> </ul>
Location	Applies to all permanent ancillary facilities (including substations) associated with the proposed ECO Substation Project
Monitoring/Reporting Action	CPUC to review Final Screening/Landscape Plan before the start of construction and to verify implementation following construction
Effectiveness Criteria	The occurrence of visual contrast from ancillary facilities will be minimized, and facilities will be adequately screened and will blend with the landscape to the extent feasible.
Responsible Agency	CPUC
Timing	CPUC to review Final Screening/Landscape Plan before the start of construction and verify implementation following construction.



## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 5  
Mitigation Measures – Visual Resources**

Interpretation & Approach	SDG&E will provide the Final Screening/Landscape Plan to the CPUC for review and approval at least 90 days before the installation of landscape screening, in accordance with the language provided in this measure.
Mitigation Measure	<b>VIS-3i. Reduce potential visual contrast of transmission structures.</b> SDG&E will use dulled-metal-finish transmission structures and non-specular conductors.
Location	At all substation facilities and along the transmission line alignment (ECO Substation Project and transmission line corridors)
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are identified before the start of construction and to verify implementation of components during construction.
Effectiveness Criteria	The occurrence of visual contrast from transmission structures will be minimized, and structures will blend with the landscape to the extent feasible.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are identified before the start of construction and to verify implementation of components during construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3j. Reduce potential transmission conductor visibility and visual contrast.</b> The following design measures shall be applied to all new structure locations, conductors, and re-conducted spans to reduce the degree of visual contrast caused by the new facilities: <ul style="list-style-type: none"> <li>• All new conductors and re-conducted spans to be non-specular to reduce conductor visibility and visual contrast.</li> <li>• Where revisions would not conflict with existing design considerations to avoid sensitive resources (including hydrological, cultural, and biological resources), no new access roads shall be constructed such that they directly approach existing or proposed towers in a straight line from sensitive viewing locations immediately downhill of the structures.</li> </ul>
Location	All transmission line structures
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that conductors are non-specular and that access roads do not directly approach existing or proposed towers in a straight line from sensitive viewing locations
Effectiveness Criteria	The visibility of conductors will be minimized, and the visual impacts of access roads on sensitive viewing locations will be minimized.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction plans before the start of construction and verify implementation of design measures following construction
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3k. Reduce potential visual contrast from transmission structure spacing.</b> Where the line parallels existing transmission lines, the spacing of structures shall match the existing transmission structures, where feasible, to minimize visual effects.
Location	All transmission line structures associated with the proposed ECO Substation Project and project alternatives
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that spacing of structures matches existing transmission structures
Effectiveness Criteria	The occurrence of visual contrasts from transmission structures will be minimized.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 5  
Mitigation Measures – Visual Resources**

Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction plans before the start of construction and to verify implementation of design measures following construction
Interpretation & Approach	None required.
Mitigation Measure	<b>VIS-3I. Reduce potential view blockage and visual contrasts of structures.</b> Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence, where feasible. SDG&E will consult with affected property owners on structure siting to reduce land use and visual impacts.
Location	All transmission line structures
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that structures are not planned directly in front of residents or in direct line of sight from residences.
Effectiveness Criteria	The occurrence of view blockage from transmission structures will be minimized.
Responsible Agency	CPUC and BLM
Timing	SDG&E to consult with affected property owners on structure siting to reduce land use and visual impacts before obtaining Permit to Construct
Interpretation & Approach	None required.
Mitigation Measure	<b>MM VIS-3m: Reduce visual impacts resulting from native tree removal.</b> In the event that ornamental or native trees within the project area will be removed due to project design and grading, SDG&E shall prepare a Tree Replacement Plan to be submitted with the Screening/Landscape Plan. The Tree Replacement Plan shall include but is not limited to the following: <ul style="list-style-type: none"> <li>• Tree Removal Locations: Indicate the size, type, and location of each tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required.)</li> <li>• Assessment of the health and structural conditions, soils, tree size (trunk diameter, basal diameter, height, canopy spread), pest and disease presence, and accessibility of native oak trees to be removed due to project design and grading in order to determine whether existing trees can be transplanted outside the project footprint post-construction. If the assessment determines native oak trees can be transplanted, the oaks would be augmented with additional oak plantings in case the larger trees decline and are lost as a result of the relocation process. If native oak trees cannot be transplanted, the Tree Replacement Plan shall indicate the size, type, and location of each proposed replacement tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required).</li> <li>• Photos of the site and/or trees to be removed.</li> <li>• Oak replacement plan focusing on oak tree planting with smaller container trees at higher numbers, recommended at least 5:1 with 15-gallon size trees.</li> </ul> The Tree Replacement Plan must minimize mature tree loss to the degree feasible. The Tree Replacement Plan shall be submitted to the CPUC for approval at least 90 days prior to planned tree removal. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the SDG&E shall prepare and submit the revised Tree Replacement Plan for review and approval.
Location	At the Boulevard Substation Rebuild site.
Monitoring/Reporting Action	CPUC to review Tree Replacement Plan in conjunction with the Screening/Landscape Plan before start of construction and to verify implementation following construction

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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**Table 5  
Mitigation Measures – Visual Resources**

Effectiveness Criteria	Visual impacts resulting from native tree removal would be reduced.
Responsible Agency	CPUC
Timing	The Tree Replacement Plan shall be submitted to the CPUC by SDG&E for approval at least 90 days prior to planned tree removal. CPUC to verify implementation of plan following construction.
Interpretation & Approach	None required.
Mitigation Measure	<p><b>VIS-4a. Reduce long-term night-lighting impacts from substations and ancillary facilities.</b> SDG&amp;E shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. The Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. SDG&amp;E shall submit a Lighting Mitigation Plan to the CPUC for review and approval at least 90 days before ordering any permanent exterior lighting fixtures or components. SDG&amp;E shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the CPUC. The Plan shall include but is not necessarily limited to the following:</p> <ul style="list-style-type: none"> <li>• Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated, and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary.</li> <li>• All lighting shall be of minimum necessary brightness consistent with worker safety.</li> <li>• High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.</li> </ul>
Location	At substations and ancillary facilities included in the proposed ECO Substation Project
Monitoring/Reporting Action	CPUC to review Lighting Mitigation Plan before the start of construction and verify implementation following construction
Effectiveness Criteria	Light bulbs and reflectors at substations would not be visible from public viewing areas, and night lighting would not cause reflected glare and illumination beyond the facility boundary and into the nighttime sky.
Responsible Agency	CPUC
Timing	CPUC to review Lighting Mitigation Plan before the start of construction and to verify implementation following construction.
Interpretation & Approach	None required.

# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 6  
Mitigation Measures – Land Use**

Mitigation Measure	<p><b>LU-1a. Prepare Construction Notification Plan.</b> Forty-five days prior to construction, SDG&amp;E shall prepare and submit a Construction Notification Plan to the BLM and CPUC for approval. The Plan shall identify the procedures that will be used to inform property owners of the location and duration of construction, identify approvals that are needed prior to posting or publication of construction notices, and include text of proposed public notices and advertisements. The Plan shall address at a minimum two of the following components:</p> <ul style="list-style-type: none"> <li>• <b>Public notice mailer.</b> A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties. The notice shall state the type of construction activities that will be conducted and the location and duration of construction, including all helicopter activities. SDG&amp;E shall mail the notice to all residents or property owners within 1,000 feet of project components. If construction delays of more than 7 days occur, an additional notice shall be prepared and distributed.</li> <li>• <b>Newspaper advertisements.</b> Fifteen days prior to construction within a route segment, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins. The notice shall state when and where construction will occur and provide information about the public liaison person and hotline. If construction is delayed for more than 7 days, an additional round of newspaper notices shall be placed to discuss the status and schedule of construction.</li> <li>• <b>Public venue notices.</b> Thirty days prior to construction, notice of construction shall be posted at public venues such as libraries, community notification boards, post offices, rest stops, community centers, and other public venues to inform affected residents of the purpose and schedule of construction activities.</li> <li>• <b>Public liaison person and toll-free information hotline.</b> SDG&amp;E shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbances. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SDG&amp;E shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.</li> </ul>
Location	ECO Substation Project and any project component where residences are located within 1,000 feet of project components
Monitoring/Reporting Action	SDG&E shall conduct public notification as defined. CPUC/BLM monitor verifies that SDG&E submits Construction Notification Plan, which identifies complete notification and public inquiry process.
Effectiveness Criteria	SDG&E to provide CPUC/BLM with construction notices for review and approval at least 60 days prior to construction. Notices will provide advance notice of construction activities to limit noise, dust, and disruption impacts.
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction
Interpretation & Approach	The measure states that the Plan shall “identify approvals that are needed prior to posting or publication of construction notices.” Approvals from the CPUC and BLM (on BLM-administered land) have been identified as the only approvals that are needed prior to posting construction notification.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 6  
Mitigation Measures – Land Use**

Mitigation Measure	<b>LU-1b. Notify property owners and provide access.</b> To facilitate access to properties obstructed by construction activities, SDG&E shall notify property owners and tenants at least 24 hours in advance of construction activities and shall provide alternative access if required.
Location	Along the entire ECO Substation Project and project components where residences are located within 1,000 feet of project components
Monitoring/Reporting Action	SDG&E shall conduct public notification as defined.
Effectiveness Criteria	CPUC/BLM to inspect periodically to verify compliance and continued access to properties are maintained.
Responsible Agency	CPUC/BLM
Timing	During construction where residences are within 1,000 feet of the transmission line
Interpretation & Approach	The notifications provided to property owners shall be provided to the CPUC and BLM concurrently.
Mitigation Measure	<b>LU-2. Revise project elements to minimize land use conflicts.</b> At least 90 days prior to completing final transmission line design for the approved route, SDG&E shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, access roads, or other facilities associated with the project that would occur on the subject property. The notified parties shall be provided at least 30 days in which to identify conflicts with any planned development on the subject property and to work with SDG&E to identify potential reroutes of the alignment that would be mutually acceptable to SDG&E and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. SDG&E shall endeavor to accommodate these reroutes only to the extent that they are reasonable and feasible, do not create a substantial increase in cost, and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned. SDG&E shall provide a written report to the CPUC/BLM providing evidence of the notice to landowners and copies of any responses to the notice within 30 days of the notice closing date for responses. SDG&E shall also identify in the documentation submitted to the CPUC and BLM whether reroutes recommended by the landowner or SDG&E can be accommodated. Where they cannot be accommodated, the reasons shall be provided. SDG&E shall provide information sufficient for the CPUC and BLM to determine that the reroute creates no more adverse impact than the originally planned alignment location. SDG&E shall include environmental information consistent with that required for a variance. Where a reroute is proposed, the CPUC or BLM will review and agree to accept or reject individual reroutes. The CPUC or BLM may also recommend compromise reroutes for any of the parcels for which responses were provided in a timely fashion.
Location	ECO Substation Project and transmission line corridors
Monitoring/Reporting Action	Confirm receipt of notice and results prior to final design
Effectiveness Criteria	Provision of a report indicating contents of notice, distribution of notice, and any responses and resolutions
Responsible Agency	CPUC/BLM
Timing	Providing acceptable report prior to final design that verifies compliance with measure
Interpretation & Approach	None required.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 7  
Mitigation Measures – Wilderness and Recreation**

Mitigation Measure	WR-1 Provide notice for access restrictions or anticipated closures to wilderness and recreation areas. SDG&E shall coordinate with the County of San Diego to ensure that proper signage is posted in advance for any access restriction and/or anticipated closures of wilderness and recreation areas (including trails and pathways) so that recreational users may plan accordingly. Signage shall be posted 30 days prior to construction at public venues such as rest stops, resource management offices, and along access routes to known recreational destinations that would be restricted, blocked, or detoured. Notices shall provide information on alternative recreation areas that may be used during the closure of these facilities.
Location	Along the transmission line corridor, between approximate MP 7.6 and MP 12
Monitoring/Reporting Action	CPUC will verify that the County of San Diego has reviewed SDG&E's Construction Notification Plan and will ensure its implementation.
Effectiveness Criteria	Approval and implementation of the Plan Recreationists potentially impacted are informed of construction activities; procedures are established and documented for taking and responding to construction comments and concerns.
Responsible Agency	CPUC
Timing	45 days prior to construction for Construction Notification Plan
Interpretation & Approach	Photo documentation verifying signage was posted 30 days prior to construction shall be provided within 48 hours of signage being posted.

**Table 8  
Mitigation Measures – Cultural and Paleontological Resources**

Mitigation Measure	<p><b>CUL-1A, Develop and Implement a Historic Properties Treatment Plan-Cultural Resources Management Plan:</b> A Historic Properties Treatment Plan–Cultural Resources Management Plan (HPTP-CRMP) shall be prepared to avoid or mitigate impacts for significant cultural resources pursuant to Section 106 Guidelines. An MOA shall be developed among all federal, state, and local agencies to implement the HPTP-CRMP. As part of the HPTP-CRMP, recorded cultural resources that can be avoided shall be listed and demarcated during construction as Environmentally Sensitive Areas (ESAs). All recommended NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 100 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained on SDG&amp;E-owned property, easements, or ROW to protect ESAs from inadvertent trespass for the duration of construction in the vicinity (the ESA fencing should demarcate the limits of the construction areas and where people have to stay within the easement, ROW, or SDG&amp;E-owned property). An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESAs. The HPTP-CRMP shall also define any additional areas that are considered to be of high sensitivity for discovery of buried NRHP-eligible historic properties and CRHR-eligible historic resources, including burials, cremations, or sacred features. These areas of high sensitivity shall also be monitored by qualified archaeologists during construction. If recommended NRHP-eligible historic properties and CRHR-eligible historic resources are not avoidable, the HPTP-CRMP shall provide a process for evaluating NRHP and CRHR eligibility, consulting with Native Americans about site treatment, working with engineers to avoid resources; suggest various options for reducing adverse effects; and outline a data recovery mitigation plan that would include research design, field sampling, laboratory analysis, reporting, curation, and dissemination of results. Other treatment measures to</p>
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# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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**Table 8  
Mitigation Measures – Cultural and Paleontological Resources**

	<p>resolve adverse effects could include but are not limited to historical documentation, photography, collection and publishing of oral histories, field work to gather information for research purposes or some form of public awareness or interpretation. A description of alternative treatments to resolve adverse effects other than data recovery excavations could also include:</p> <ul style="list-style-type: none"> <li>• Relocation of construction component to portions of historic properties that do not contribute to the qualities that make the resource eligible for the NRHP and CRHR;</li> <li>• Deeding cemetery of other sensitive areas outside of the substation property and related facilities into open space in perpetuity and providing necessary long-term protection measures;</li> <li>• Public interpretation including the preparation of a public version of the cultural resources studies and/or education materials for local schools;</li> <li>• Providing Native American tribes future access to traditional and cultural areas on the Project site, but outside of the substation property and related facilities, after completion of Project construction; and</li> <li>• SDG&amp;E financial support of existing cultural centers for the preparation of interpretive displays.</li> </ul> <p>The HPTP-CRMP shall include provisions for reporting and curation of artifacts and data at a facility that is approved by the agency. The applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. As part of the HPTP-CRMP, processing of all collected cultural remains shall be described. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species.</p> <p>A Native American monitor may be required at culturally sensitive locations specified by the lead agency following government-to-government consultation with Native American tribes. The monitoring plan in the CRMP shall indicate the locations where Native American monitors shall be required.</p> <p><b>CUL-1B, Avoid and Protect Significant Resources.</b></p> <p>SDG&amp;E shall design and implement a long-term management plan to protect NRHP-eligible, CRHR-eligible sites or sites treated as eligible for project management purposes from direct impacts of project operation and maintenance and from indirect impacts (such as erosion and access) that could result from the presence of the project. The plan shall be developed in consultation with the BLM and other consulting parties to design measures that shall be effective against project maintenance impacts, such as vegetation clearing and road and tower maintenance, and project-related vehicular impacts. The plan shall also include a context for understanding the cultural resources within the ROW and describe how protective measures will be undertaken for the cultural resources within the ROW or main project area that may experience operational and access impacts as a result of the project. Measures considered shall include demarcation of Environmentally Sensitive Areas (ESAs) during any subsequent project construction maintenance activities for all historic properties within 50 feet of direct impact areas, permanent restrictive fencing or gates, permanent access road closures, signage, stabilization of potential erosive areas, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting the resources. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to resources. Monitoring of sites selected during consultation with BLM and CPUC shall be conducted annually by a professional archaeologist for a minimum period of</p>
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# East County Substation Project

## Mitigation Monitoring, Compliance, and Reporting Program

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**Table 8**  
**Mitigation Measures – Cultural and Paleontological Resources**

	<p>5 years. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photo monitoring stations and written observations. A monitoring report shall be submitted to the BLM and CPUC within 1 month following the annual resource monitoring. The report shall indicate any properties that have been affected by erosion, unauthorized excavation or collecting or vehicle or maintenance impacts. For properties that have been impacted, SDG&amp;E shall provide recommendations for mitigating impacts and for improving protective measures. After 5 years of resource monitoring, the BLM and CPUC shall evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the BLM and CPUC may require that SDG&amp;E revise or refine the protective measures, or alter the monitoring protocol or schedule. If the BLM does not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of the project operation.</p> <p>If annual monitoring program identifies adverse effects to properties eligible for listing on the NRHP and CRHR from operation or long-term presence of the project, or if, at any time, SDG&amp;E, the BLM or CPUC become aware of such adverse effects SDG&amp;E shall notify the BLM and CPUC immediately and shall implement additional protective measures, as directed by the BLM and CPUC. At the discretion of the BLM and/or CPUC such measures may include, but not be limited to, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resource studies or protection.</p> <p><b>CUL-1C, Training for Contractor:</b></p> <p>All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. SDG&amp;E shall complete training for all construction personnel and retain documentation showing when training of personnel was completed. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that shall be avoided, and that travel and construction activity shall be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the ROW by SDG&amp;E, its representatives, or employees shall not be allowed. Violators shall be subject to prosecution under the appropriate State and federal laws, and violations shall be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:</p> <ul style="list-style-type: none"> <li>• All construction contracts shall require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.</li> <li>• SDG&amp;E shall provide training for supervisory construction personnel describing the potential for exposing cultural resources and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources</li> </ul> <p><b>CUL-1D, Construction Monitoring:</b> Prior to issuance of grading permit(s), the SDG&amp;E shall retain a qualified archaeologist, in accordance with the Secretary of the Interior's Standards</p>
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# East County Substation Project

## Mitigation Monitoring, Compliance, and Reporting Program

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**Table 8**  
**Mitigation Measures – Cultural and Paleontological Resources**

	<p>and Guidelines (Secretary's Standards) (36 CFR 61), and Native American observer to monitor ground-disturbing activities in culturally sensitive areas in an effort to identify any unknown resources. A qualified archaeologist shall attend preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans.</p> <p>All construction activities in environmentally sensitive areas, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant portions of the project site contain sedimentary deposits that have the potential to contain buried cultural resources, then full-time cultural resources monitoring shall be implemented during all phases of ground-disturbing work in these areas. If ESA fencing has been established and the possibility of buried cultural deposits is determined to be low after initial ground-disturbance, the on-site professional archaeologist may determine that full-time monitoring is no longer required in that area. A cultural resource monitor shall meet the Secretary of the Interior Standards Qualifications as a professional archaeologist and, as appropriate, shall be on the lead agencies approved consultants list. The archaeological monitor(s) shall also be familiar with the project area and, therefore, be capable of anticipating the types of cultural resources that may be encountered.</p> <p><b>CUL-1E, Discovery of Unknown Resources:</b> In the event that previously unknown cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance to allow evaluation of recommended significant cultural resources. The process for handling inadvertent discoveries shall be documented in the CRMP. It shall detail the methods, consultation procedures, and timelines for assessing register eligibility, formulating a mitigation plan, and implementing treatment should avoidance and protection of the resource not be possible. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and SHPO prior to implementation. The archaeologist in coordination with the BLM shall evaluate the significance of the discovered resources based on eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility shall be made by the CPUC and BLM, in consultation with other appropriate agencies and local governments, and the SHPO.</p> <p><b>CUL-1F, Control Unauthorized Access:</b> SDG&amp;E shall coordinate with the authorized officer of the BLM or local landowner/administrator at least 60 days before construction in order to determine if gates shall be installed on access roads, especially trails that would be dually used as access roads, to prevent unauthorized vehicular access to the ROW. Gate installation shall be required at the discretion of the BLM. On trails proposed for dual use as access roads, gates shall be wide enough to allow horses, bicycles, and pedestrians to pass through. SDG&amp;E shall document its coordination efforts with the BLM of the road/trail and provide this documentation to the CPUC and BLM 30 days prior to construction. Signs prohibiting unauthorized use of the access roads shall be posted on the installed gates.</p> <p><b>CUL-1G, Funding of Law Enforcement Patrols:</b> To control unauthorized use of project access roads and to provide for the general protection of cultural and natural resources made more accessible as a result of the project facilities, SDG&amp;E shall provide funding to BLM and CPUC for law enforcement patrols for the term of the ROW. The BLM and CPUC will formulate what funding is reasonable to implement the above.</p> <p><b>CUL-1H, Continue Consultation with Native Americans and Other Traditional Groups.</b> SDG&amp;E shall provide assistance to the BLM and CPUC, as requested by the BLM and CPUC, to continue required government to government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994, and Section 106</p>
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# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 8  
Mitigation Measures – Cultural and Paleontological Resources**

	<p>of the National Historic Preservation Act) and other traditional groups to identify and assess or mitigate the impact of the approved project on traditional cultural properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses. As directed by the BLM and CPUC, SDG&amp;E shall undertake required treatments, studies, or other actions that result from such consultation. Actions that are required during or after construction shall be defined, detailed, and scheduled in the HPTP-CRMP and implemented by SDG&amp;E and may include the following:</p> <ul style="list-style-type: none"> <li>• Information regarding further developments in the project;</li> <li>• Participation by Native American monitors in any additional surveys, archaeological excavations, and ground-disturbing construction activities;</li> <li>• Return of any prehistoric artifacts requiring repatriation under the NAGPRA that are recovered to the appropriate tribe after they have been analyzed by archaeologists;</li> <li>• The right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains; and</li> <li>• Copies of all site records, survey reports, or other environmental documents.</li> </ul>
Location	Along entire proposed project
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan. All historic properties in the project impact area are identified and protected from disturbance. Quarterly updates to agencies.
Responsible Agency	CPUC/BLM
Timing	Minimum 30 days prior to construction for final Plan in effect throughout construction
Interpretation & Approach	None required.
Mitigation Measure	<p><b>CUL-2, Human Remains:</b> All location of known Native American human remains shall be avoided through project design and designation as ESAs if within 100 feet of project components. During construction, if human remains are encountered, Native American consultation consistent with NAGPRA shall be undertaken. In addition, if human remains are encountered on non-federal (state, county, or private) lands, California Health and Safety Code §7050.5 states that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code §5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Diego County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the Native American Heritage Commission shall identify the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98. Avoidance and protection of inadvertent discoveries which contain human remains shall be the preferred protection strategy with complete avoidance of impacts to such resources protected from direct project impacts by project redesign. SDG&amp;E shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. SDG&amp;E shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM and CPUC.</p>
Location	Along entire proposed project
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.

# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 8  
Mitigation Measures – Cultural and Paleontological Resources**

Effectiveness Criteria	All human remains in the project impact area are identified and protected from disturbance. Quarterly updates to agencies.
Responsible Agency	CPUC/BLM
Timing	For the duration of project
Interpretation & Approach	None required.
Mitigation Measure	<p><b>PALEO-1A, Inventory and evaluate paleontological resources in the Final APE:</b> Prior to construction, SDG&amp;E shall conduct and submit to the BLM and CPUC for approval an inventory of significant paleontological resources within the affected area, based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.</p> <p><b>PALEO-1B, Develop Paleontological Monitoring and Treatment Plan:</b> Following completion and approval of the paleontological resources inventory and prior to construction, SDG&amp;E shall prepare and submit to the CPUC and BLM for approval a Paleontological Monitoring Treatment Plan (Plan). The Plan shall be designed by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements, including BLM and County of San Diego Paleontological Resource Guidelines. The qualified paleontologist shall have an MA or PhD in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist). Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Paleontologist shall have a BA in Geology or Paleontology, and a minimum of 1 year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to, a Paleontological Resources Use Permit (for work on public lands administered by BLM). Notices to proceed shall be issued by the lead agency and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.</p> <p><b>PALEO-1C, Monitor Construction for Paleontology:</b> Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PALEO-01b (Develop Paleontological Monitoring and Treatment Plan), SDG&amp;E shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate (PFYC - Class 3) to high (PFYC - Class 4) paleontological sensitivity within the ECO Substation. Sediments of low, marginal (i.e., PFYC – Class 2), or, undetermined (PFYC Class 3) sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist.</p> <p><b>PALEO-1D, Conduct Paleontological Data Recovery:</b> If avoidance of significant</p>

# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 8  
Mitigation Measures – Cultural and Paleontological Resources**

	<p>paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the project, in accordance with the approved Treatment Plan per Mitigation Measure PALEO-01B (Develop Paleontological Monitoring and Treatment Plan).</p> <p><b>PALEO-1E, Train Construction Personnel:</b> Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The project shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas include areas determined to be paleontologically sensitive, as defined on the paleontological sensitivity maps for the project, and must be avoided, and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the ROW by the project, its representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop-work order. The following issues shall be addressed in training or in preparation for construction:</p> <ul style="list-style-type: none"> <li>• All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.</li> <li>• The project shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential Environmentally Sensitive Areas, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.</li> <li>• Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted, and the project paleontologist shall be notified. Once the find has been inspected and a preliminary assessment made, the project paleontologist will notify the lead agency and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PALEO-1B (Develop Paleontological Monitoring and Treatment Plan).</li> </ul>
Location	Areas identified in PALEO-1A, PALEO-1B
Monitoring/Reporting Action	CPUC/BLM will review and ensure implementation.
Effectiveness Criteria	Approval and implementation of the Plan Quarterly updates to agencies
Responsible Agency	CPUC/BLM
Timing	Minimum 30 days prior to construction for final Plan Plan in effect throughout construction
Interpretation & Approach	None required.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 9  
Mitigation Measures – Noise**

Mitigation Measure	<p><b>NOI-1: Blasting Plan</b></p> <p>SDG&amp;E will prepare a blasting plan that will reduce impacts associated with construction-related noise and vibrations related to blasting. The blasting plan will be site specific, based on general and exact locations of required blasting and the results of a project-specific geotechnical investigation. The blasting plan will include a description of the planned blasting methods, an inventory of receptors potentially affected by the planned blasting, and calculations to determine the area affected by the planned blasting. Noise calculations in the blasting plan will account for blasting activities and all supplemental construction equipment. The final blasting plan and pre-blast survey shall meet the requirements provided below, as well as those outlined in Mitigation Measure HAZ-4b.</p> <p>The blasting plan will include a schedule to demonstrate, where feasible, construction blasting to occur infrequently enough that it will not exceed the County's impulsive noise standard because blasting would not occur for more than 25% (15 minutes) during a 1-hour period due to the short time duration of a blast. Where this is not possible, other construction blasting would be coordinated with impacted building occupants to occur in their absence, or at other acceptable times, to avoid nuisance or annoyance complaints. If necessary, the applicant will temporarily relocate impacted residents on an as-needed basis for the duration of the blasting activities. The applicant will be responsible for temporary relocation expenses (i.e.; expenses for temporary housing) incurred by impacted residents if relocation is necessary during blasting activities.</p> <p>To ensure that potentially impacted residents are informed, the applicant will provide notice by mail to all property owners within 300 feet of the project at least 1 week prior to the start of construction activities.</p> <p>Blasting would be completed between 7 a.m. and 7 p.m. to be compliant with County of San Diego noise ordinances.</p> <p>A rock anchoring or min-pile system may be used to reduce the risk of damage to structures during blasting activities. Fair compensation for lost use will be provided to the property owner. Physical damage to potentially vulnerable structures will be addressed by avoiding construction blasting near the structures wherever possible, and, if necessary, non-blasting construction methods will be evaluated. If adversely affected, structures shall be restored to an equivalent condition, and fair compensation for lost use will be provided to the owner.</p> <p>If necessary, the use of portable noise barriers to reduce excessive noise impacts shall be used between the source and affected occupied properties. Noise barriers that break the line of sight would provide 5 dB attenuation. Increasing the height of the barrier would increase the attenuation of the barrier. A 5 dBA to 10 dBA attenuation is considered reasonably feasible.</p> <p>Supplemental construction equipment, such as drill rigs, may be used to support blasting. At a distance of 80 feet, drill rig noise emissions are approximately 75 dBA <math>L_{eq}</math>. Drill rigs, without mitigation, have the potential to cause temporary noise impacts if used less than 80 feet from the property line of an occupied residence. The blasting plan will include measures to reduce noise impacts resulting from the use of drill rigs at less than 80 feet from a property line. Such measures may include temporary noise barriers or limited hours of operation to reduce the impact to within the County standard.</p>
Location	138 kV Transmission Line
Monitoring/Reporting Action	Plan prepared prior to construction. The CPUC and BLM will ensure that these measures are carried out during project construction.
Effectiveness Criteria	Achieve minimum 5 dBA to 10 dBA noise reduction
Responsible Agency	CPUC/BLM

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 9  
Mitigation Measures – Noise**

Timing	Plan prepared prior to construction and in effect throughout construction
Interpretation & Approach	None required.
Mitigation Measure	<b>NOI-2: Conductor configuration selection to address noise impacts</b> As part of the project's design selection process, the proper conductor configuration shall be selected so that the corona noise does not exceed the County's noise ordinance limits along the transmission line corridor measured during worst-case weather conditions at or beyond 6 feet from the boundary of the easement upon which the transmission line is located.
Location	SWPL Loop-In
Monitoring/Reporting Action	CPUC will ensure that these measures are carried out prior to project construction.
Effectiveness Criteria	Achieve minimum 5 dBA to 10 dBA noise reduction
Responsible Agency	CPUC
Timing	Prior to construction
Interpretation & Approach	A noise study shall be prepared by a certified acoustician demonstrating the SWPL Loop-In does not exceed the County's noise ordinance limits. The noise study shall be reviewed and approved by CPUC prior to energization.

**Table 10  
Mitigation Measures – Transportation and Traffic**

Mitigation Measure	<p><b>TRA-1. Prepare and implement a Traffic Control Plan.</b> At minimum, the plan will include the following:</p> <ul style="list-style-type: none"> <li>• SDG&amp;E shall encourage carpooling to the construction site to reduce personal vehicle traffic in the project area to the greatest extent possible.</li> <li>• SDG&amp;E will consider the specific object sizes, weights, origin, destination, and unique handling requirements, and evaluate alternative transportation approaches.</li> <li>• Measures such as informational signs and flaggers shall be implemented when equipment may result in blocked roadways, and traffic cones or similar shall be implemented to identify any necessary changes in temporary lane configuration.</li> <li>• Flaggers and directional guidance for bicyclists along Old Highway 80 shall be used.</li> <li>• All Caltrans' standards for utility encroachments shall be met.</li> <li>• The plan shall be prepared in accordance with Caltrans' Manual on Uniform Traffic Control Devices and the Work Area Traffic Control Handbook (WATCH) Manual.</li> <li>• Clearances or overhead crossings shall conform to regulations of the CPUC and BLM, and the number of crossings shall be minimized.</li> <li>• New installations under an existing roadbed shall be made by the boring-and-jacking method. No trenching under the traveled way will occur.</li> <li>• For freeways and expressways, the placement of longitudinal encroachments is prohibited within controlled-access rights-of-way (ROWS).</li> <li>• Utilities shall not be located in median areas.</li> <li>• Transverse crossings shall be normal (90°) to the highway alignment where practical. If impractical, skews of up to 30° from normal may be allowed.</li> <li>• Supports for overhead lines crossing freeways shall be located outside the controlled-access ROW and not on cut-or-fill slopes, and shall not impair sight distances. All installations shall be placed as close to the ROW line as possible. Aboveground utilities shall be outside of the clear recovery zone</li> </ul>
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# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 10**  
**Mitigation Measures – Transportation and Traffic**

	<p>(20 feet from edge-of-travel way for conventional highways and 30 feet for freeways and expressways). Allowance shall be made for future widening of the highways.</p> <ul style="list-style-type: none"> <li>• New installations shall not impair sight distances.</li> <li>• SDG&amp;E shall coordinate in advance with the applicants for the other two connected actions. This effort shall include coordinating the timing of construction of the various projects to reduce potential conflicts.</li> <li>• SDG&amp;E shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The County will then notify respective police, fire, ambulance, and paramedic services. SDG&amp;E shall notify counties and cities of the proposed locations, nature, timing, and duration of any construction activities, and advise of any access restrictions that could impact their effectiveness.</li> </ul> <p>SDG&amp;E shall provide a draft copy of the Traffic Control Plan to the agencies listed for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&amp;E, and plan revisions will address each comment to the satisfaction of the commenting agency. The final plan will be submitted to the CPUC and BLM with input from commenting agencies and provided to SDG&amp;E for implementation during all construction activities.</p>
Location	At construction zones along proposed ECO Substation Project and utility corridors
Monitoring/Reporting Action	CPUC, BLM, San Diego County, and Caltrans (if required) will review Traffic Control Plan. The CPUC and BLM will ensure its implementation. For coordination with emergency service providers, document coordination with providers, including provision of construction schedule shall be provided at the time of submittal of the Traffic Control Plan.
Effectiveness Criteria	Approval and implementation of the plan. For coordination with emergency service providers: evidence of coordination.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>TRA-2. Repair roadways damaged by construction activities.</b> If damage to roads occurs, SDG&E shall coordinate repairs with the affected public agencies to ensure that any impacts to area roads are adequately repaired at SDG&E's cost. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Care shall be taken to prevent damage to roadside drainage structures. Roadside drainage structures and road drainage features (e.g., rolling dips) shall be protected by regrading and reconstructing roads to drain properly. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction.
Location	All roads used to access construction sites
Monitoring/Reporting Action	Review documentation to ensure that SDG&E obtained permits for construction within each road ROW prior to construction. Verify that each affected roadway has been satisfactorily restored and/or reconstructed within 30 days of the end of the construction.
Effectiveness Criteria	Restoration/maintenance of roads to preconstruction conditions as determined by the affected public agency
Responsible Agency	CPUC/BLM
Timing	After construction is completed on each affected roadway
Interpretation & Approach	None required.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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**Table 10  
Mitigation Measures – Transportation and Traffic**

Mitigation Measure	TRA-3. Consult with and inform the FAA, DOD, and U.S. Customs and Border Protection. SDG&E shall consult with the FAA, DOD, and U.S. Customs and Border Protection (San Diego Sector) to avoid potential safety issues associated with proximity to airports, military bases or training areas, and land strips and to determine where Border Protection aircraft operate in the County. Prior to construction, SDG&E shall provide written notification to the FAA, the U.S. Air Force Regional Environmental Coordinator (or appropriate DOD representative), U.S. Customs and Border Protection (San Diego Sector), and to the CPUC and BLM, stating when and where the new transmission lines and towers will be erected, and shall install markers as requested by the U.S. Customs and Border Protection or FAA. SDG&E shall also provide all agencies listed above with aerial photos or topographic maps clearly showing the new lines and towers.
Location	Along 138 kV transmission line alignment
Monitoring/Reporting Action	Evidence of notification and submittal of aerial photos and/or topographic maps to FAA, DOD, U.S. Customs and Border Protection, CPUC and BLM
Effectiveness Criteria	Evidence of notification and sharing of information about the location of the new lines and towers.
Responsible Agency	CPUC and BLM
Timing	Evidence of notification shall be provided to the CPUC and BLM after final engineering and prior to construction
Interpretation & Approach	None required.

**Table 11  
Mitigation Measures – Public Health and Safety**

Mitigation Measure	<p>HAZ-1a. Hazardous Materials Management Plan. Prior to approval of final construction plans, SDG&amp;E shall prepare an HMMP for the construction phase of the project, which shall be reviewed and approved by the appropriate agency, and shall include the following components:</p> <ul style="list-style-type: none"> <li>• The plan shall identify all hazardous materials that will be present on any portion of the construction site, including, but not limited to, fuels, solvents, and petroleum products. The plan shall address storage, use, transportation, and disposal of each hazardous material anticipated to be used at the site. The plan shall establish inspection procedures, storage requirements, storage quantity limits, inventory control, nonhazardous product substitutes, and disposition of excess materials.</li> <li>• The plan shall identify secondary containment and spill prevention countermeasures, as well as a contingency plan to identify potential spill hazards, how to prevent their occurrence, and responses for different quantities of spills that may occur. Secondary containment and countermeasures shall be in place throughout construction so that if any leaks or spills occur, responses will be made immediately.</li> <li>• The plan shall identify materials (and their locations) that will be on site and readily accessible to clean up small spills (i.e., spill kit, absorbent pads, and shovels). Such emergency spill supplies and equipment shall be clearly marked and located adjacent to all areas of work and in construction staging areas. The plan shall identify the spill-response materials that must be maintained in vehicles and substation sites during construction and procedures for notification to the appropriate authorities.</li> <li>• The plan shall identify adequate safety and fire suppression devices for construction-</li> </ul>
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# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 11  
Mitigation Measures – Public Health and Safety**

	<p>related activities involving toxic, flammable, or explosive materials (including refueling construction vehicles and equipment). Such devices shall be readily accessible on the project site, as specified by the County's Fire Department and per the Uniform Building Code and Uniform Fire Code. The plan shall be included as part of all contractor specifications and final construction plans to the satisfaction of the appropriate agency. The plan shall also identify requirements for notices to federal and local emergency response authorities and shall include emergency response plans.</p> <p>Prior to construction, all contractor and subcontractor personnel shall receive training regarding the components of the HMMP, as well as applicable environmental laws and regulations related to hazardous materials handling, storage, and spill prevention and response measures.</p> <p>SDG&amp;E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the plan for all construction activities. The plan shall be submitted to BLM and CPUC at least 30 days prior to construction.</p>
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out throughout construction.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction
Interpretation & Approach	None required.
Mitigation Measure	<p><b>HAZ-1b. Health and Safety Program.</b> Prior to approval of final construction plans, SDG&amp;E shall prepare a Health and Safety Program for each applicable phase of the project (i.e., construction, operation, and decommissioning). The program shall be developed to protect both workers and the general public during all phases of the project. The program shall be implemented to educate construction workers about the hazards associated with the particular project site and the safety measures that must be taken to prevent injury. The program shall include standards regarding occupational safety, safe work practices for each task, hazard training requirements for workers, and mechanisms for documentation and reporting.</p> <p>Regarding occupational health and safety, the program should identify all applicable federal and state occupational safety standards; establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses; OSHA standard practices for safe use of explosives and blasting agents; and measures for reducing occupational EMF exposures); establish fire safety evacuation procedures; and define safety performance standards (e.g., electrical system standards and lightning protection standards). The program should include a training program to identify hazard training requirements for workers for each task and establish procedures for providing required training to all workers. The program should include worker training regarding how to identify potentially contaminated soils and/or groundwater. Documentation of training and a mechanism for reporting serious accidents to appropriate agencies shall be established.</p> <p>The program should identify requirements for temporary fencing around staging areas, storage yards, and excavation areas during construction or decommissioning activities. Such fencing should be designed to restrict transient traffic, off-highway vehicle (OHV) use, and the general public from accessing areas under construction and should be removed once construction or decommissioning activities are complete. The program should also identify appropriate measures to be taken during operation of the project to limit public access to hazardous facilities (e.g., permanent fencing, locked access). In order to inform workers and the general public of the dangers of abandoned mines,</p>

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 11  
Mitigation Measures – Public Health and Safety**

	<p>pamphlets with the “Stay Out-Stay Alive” information used by federal and state governments should be distributed as part of the program.</p> <p>SDG&amp;E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the program for all construction activities. The program shall be submitted to BLM and CPUC at least 30 days prior to construction. In addition, SDG&amp;E shall implement Sempra Energy’s Health and Safety Program during the operational phase of the project.</p>
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out throughout construction.
Responsible Agency	CPUC and BLM
Timing	Program in effect throughout construction
Interpretation & Approach	None required.
Mitigation Measure	<p><b>HAZ-1c. Waste Management Plan.</b> Prior to approval of final construction plans, SDG&amp;E shall prepare a Waste Management Plan, which shall determine waste procedures, waste storage locations, waste-specific management and disposal requirements, inspection procedures, and waste minimization procedures.</p> <p>SDG&amp;E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the plan for all construction activities. The plan shall be submitted to CPUC and BLM at least 30 days prior to construction.</p>
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out throughout construction.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction
Interpretation & Approach	None required.
Mitigation Measure	<p><b>HAZ-1d. Testing for environmental hazards associated with demolition.</b> Prior to demolition of the existing Boulevard Substation and surrounding buildings, soil, conduit, equipment, and structures shall be tested for environmental hazards, including oil, lead-based paint, and asbestos. An asbestos and lead-based paint survey shall be performed by a Cal/OSHA certified Asbestos Consultant/Site Surveillance Technician and a California Department of Public Health (CDPH) certified Inspector/Assessor, Sampling Technician, or Program Monitor. The survey shall be performed in accordance with the applicable state guidance to identify asbestos containing materials (ACM), asbestos containing construction materials (ACCM), and lead-based paint (LBP) as defined in the California Code of Regulations. If ACM, ACCM, or LBP is identified, abatement and disposal of all regulated materials shall be performed by a Cal/OSHA/CDPH certified abatement contractor prior to or during the demolition process.</p>
Location	ECO Substation Project site and all project components.
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out throughout construction.
Responsible Agency	CPUC/BLM
Timing	Program in effect throughout construction
Interpretation & Approach	As stated in Mitigation Measure Haz-1d, testing prior to demolition will only be required at the existing Boulevard Substation site, which is the only facility that will be demolished as part of the Project.

# East County Substation Project

## Mitigation Monitoring, Compliance, and Reporting Program

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**Table 11**  
**Mitigation Measures – Public Health and Safety**

Mitigation Measure	<p><b>HAZ-2a. Test for pesticides/herbicides on currently or historically farmed land.</b> In areas where the land has been or is currently being farmed, soil samples shall be collected and tested for herbicides, pesticides, and fumigants to determine the presence and extent of any contamination. The sampling and testing shall be prepared in consultation with the County Agricultural Commission, conducted by an appropriate California licensed professional, and sent to a California Certified Laboratory. A report documenting the areas proposed for sampling and the process used for sampling and testing shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to construction. Results of the laboratory testing and recommended resolutions for handling and excavating materials found to exceed regulatory requirements shall be submitted to the CPUC and BLM at least 30 days prior to construction.</p> <p>If soil or groundwater contamination is confirmed as a result of soil sampling, SDG&amp;E shall immediately stop work and notify the designated environmental field representative. All work in the contaminated area shall cease, the work shall be cordoned off, and the environmental field representative shall implement appropriate health and safety procedures. Work outside the contaminated area may continue as determined by the environmental field representative.</p> <p>Excavated materials containing elevated levels of pesticides or herbicides would require special handling and disposal according to procedures established by the regulatory agencies. Effective dust control suppression procedures shall be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. SDG&amp;E shall contact the appropriate regulatory agencies for the State of California (e.g., DTSC or RWQCB) and the County to plan options for handling, treating, and/or disposing of materials.</p>
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Measures in effect throughout construction
Interpretation & Approach	None required.
Mitigation Measure	<p><b>HAZ-2b. Contingency plan for encountering contaminated soils.</b> If soil or groundwater contamination is suspected or encountered during grading or excavation activities (e.g., unusual soil discoloration or strong odor), SDG&amp;E's contractors or subcontractors shall immediately stop work and notify the designated environmental field representative. All work in the area of suspected contamination shall cease, the work area shall be cordoned off, and the environmental field representative shall implement appropriate health and safety procedures. Work outside the suspected area may continue as determined by the environmental field representative.</p> <p>Preliminary samples of the soil, groundwater, or suspected material shall be taken by OSHA-trained individuals and sent to a California Certified Laboratory for characterization. If the sample testing determines that contamination is not present, work shall continue at the previously suspected site. If contamination is found above regulatory limits, however, the appropriate regulatory agency (e.g., RWQCB or Certified Unified Program Agency (CUPA)) responsible for responding to and providing environmental oversight of the region shall be notified in accordance with state or local regulations. In addition, SDG&amp;E shall contact the appropriate regulatory agencies for the State of California (e.g., DTSC or RWQCB) and the County to plan options for handling, treating, and/or disposing of materials.</p> <p>Documentation of the suspected contamination shall be made in the form of a report, identifying the location and potential contamination, as well as the process used for</p>

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 11  
Mitigation Measures – Public Health and Safety**

	sampling. Results of laboratory testing and recommended resolutions for handling and excavating materials found to exceed regulatory requirements shall be submitted to the BLM and CPUC for review and approval.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction
Interpretation & Approach	This measure describes procedures to be implemented in the event contamination is encountered during construction. No requirements of this measure are pre-construction.
Mitigation Measure	<p><b>HAZ-3. Soil testing for lead contamination.</b> Soil samples shall be collected and tested from all excavation sites within 500 feet of any area identified as a current or historical shooting range to determine the presence of lead and extent of any contamination. The sampling and testing shall be conducted by a California licensed professional and sent to a California Certified Laboratory. A report documenting the areas proposed for sampling and the process used for sampling and testing shall be submitted to the project's lead agency for review and approval at least 60 days prior to excavation. Results of the laboratory testing and recommended resolutions for handling and excavating any materials found to exceed regulatory requirements shall be submitted to the project's lead agency 30 days prior to excavation.</p> <p>In addition, a Soil/Lead Contamination Handling Plan shall be prepared to address appropriate procedures in the event that lead contamination is discovered as a result of soil testing. This plan shall contain provisions for a lead-awareness program for workers, as well as guidelines for the identification, removal, transport, and disposal of lead-impacted materials. This plan shall also emphasize that all activities within, or in close proximity to, contaminated areas must follow applicable environmental and hazardous waste laws and regulations. This plan shall be submitted to the project's lead agency 30 days prior to excavation.</p> <p>Documentation of any confirmed or suspected contamination identified during testing or excavation shall be made in the form of a report identifying the location and potential contamination, as well as the process used for sampling. Results of laboratory testing and recommended resolutions for handling and excavating materials found to exceed regulatory requirements shall be submitted to the CPUC and BLM for review and approval.</p>
Location	ECO Substation Project site
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Prior to initiating excavation or grading activities within 500 feet of any area identified as a current or historical shooting range; plan in effect throughout construction
Interpretation & Approach	None required.
Mitigation Measure	<p><b>HAZ-4a. Safety Assessment.</b> Prior to commencing construction activities, SDG&amp;E shall conduct a safety assessment to describe potential safety issues associated with the project, how safety prevention measures would be implemented, where medical aid kits would be located, the appropriate response action for each safety hazard, and procedures for notifying the appropriate authorities. The assessment shall address issues such as site access, construction hazards, safe work practices, security, heavy equipment transportation, traffic management, emergency procedures, and fire control.</p>

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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**Table 11  
Mitigation Measures – Public Health and Safety**

Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction
Interpretation & Approach	None required.
Mitigation Measure	<p><b>HAZ-4b. Blasting Plan.</b> If blasting is deemed necessary for the construction of project components, SDG&amp;E shall conduct a pre-blast survey and prepare a blasting plan. A written report of the pre-blast survey and final blasting plan shall be provided to the appropriate regulatory agency and approved prior to any rock removal using explosives. In addition to any other requirements established by the appropriate regulatory agencies, the pre-blast survey and blasting plan shall meet the following conditions, as well as those outlined in Mitigation Measure NOI-1:</p> <p>The pre-blast survey shall be conducted for structures within a minimum radius of 1,000 feet from the identified blast site to be specified by SDG&amp;E. Sensitive receptors that could reasonably be affected by blasting shall be surveyed as part of the pre-blast survey. Notification that blasting would occur shall be provided to all owners of the identified structures to be surveyed prior to commencement of blasting. The pre-blast survey shall be included in the final blasting plan.</p> <p>The final blasting plan shall address air-blast limits, ground vibrations, and maximum peak particle velocity for ground movement, including provisions to monitor and assess compliance with the air-blast, ground vibration, and peak particle velocity requirements. The blasting plan shall meet criteria established in Chapter 3 (Control of Adverse Effects) in the Blasting Guidance Manual of the U.S. Department of Interior Office of Surface Mining Reclamation and Enforcement.</p> <p>The blasting plan shall outline the anticipated blasting procedures for the removal of rock material at the proposed turbine foundation locations. The blasting procedures shall incorporate line control to full depth and controlled blasting techniques to create minimum breakage outside the line control and maximum rock fragmentation within the target area. Prior to blasting, all applicable regulatory measures shall be met. SDG&amp;E, its general contractor, or its subcontractor (as appropriate) shall keep a record of each blast for at least 1 year from the date of the last blast.</p>
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction
Interpretation & Approach	A blasting plan does not apply to turbine foundations because no turbines will be constructed as part of the Project. However, if blasting is required for the installation of pole foundations or other Project components, a blasting plan will be required. A program-level blasting plan will be provided to CPUC followed by specific blasting plans during construction.
Mitigation Measure	<p><b>HAZ-5a. Spill Prevention Control and Countermeasure Plan.</b> Prior to the facility going online and becoming operational, SDG&amp;E shall prepare an SPCC plan to address proper procedures for storage, handling, spill response, and disposal of hazardous materials for the ongoing operation of the project. The SPCC plan shall meet all requirements outlined in Title 40 of the Code of Federal Regulations, Part 112 (40 CFR Part 112). The SPCC plan shall be reviewed and approved by the appropriate agency's engineering department and certified by a Registered Professional Engineer.</p>

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 11  
Mitigation Measures – Public Health and Safety**

	The SPCC plan shall identify operating procedures that the facility will implement to prevent oil spills; control measures installed to prevent oil from leaving the project site; and countermeasures to contain, clean up, and mitigate the effects of an oil spill. A copy of the plan shall be kept on site at the facility and made available for review by the U.S. EPA Regional Administrator during normal business hours. The plan shall be amended as required under 40 CFR Part 112. The plan shall be reviewed, evaluated, and updated (if necessary) every 5 years.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout operation of facility
Interpretation & Approach	This measure is only applicable to the ECO Substation component.
Mitigation Measure	<b>HAZ-5b. Hazardous Materials Business Plan.</b> Prior to the facility going online and becoming operational, SDG&E shall prepare an HMBP in accordance with all related requirements in California Health and Safety Code, Chapter 6.95, Articles 1 and 2. The HMBP shall contain basic information on the location, type, and quantity of hazardous materials stored or used by the facility, as well as the health risks associated with each hazardous material. The HMBP shall include three components: an inventory and site map, emergency response plan, and employee training. The plan shall be reviewed and recertified every year and amended as required by California Health and Safety Code, Chapter 6.95, Articles 1 and 2.
Location	ECO Substation Project site
Monitoring/Reporting Action	CPUC will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC
Timing	Plan in effect throughout operation of facility
Interpretation & Approach	None required.
Mitigation Measure	<b>PS-1a. Minimize electromagnetic and public safety communications.</b> The project shall be designed to minimize EMI (e.g., impacts to radar, microwave, television, and radio transmissions) and comply with FCC regulations. Signal strength studies shall be completed prior to construction and conducted when proposed locations have the potential to impact transmissions. Potential interference with public safety communications systems (e.g., radio traffic related to emergency activities) shall be avoided.  In the event the project results in EMI, SDG&E or the facility operator shall work with the owner of the impacted communications system to resolve the problem. Potential measures may include realigning the existing antenna or installing relays to transmit the signal around the project. Additional warning information may also need to be conveyed to aircraft with onboard radar systems so that echoes from project equipment can be quickly recognized.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Measures in effect throughout construction and operation
Interpretation & Approach	None required.
Mitigation Measure	<b>PS-1b. Limit conductor surface potential.</b> Prior to construction, SDG&E shall specify and implement designs that limit the conductor surface electric gradient in accordance with the

# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 11  
Mitigation Measures – Public Health and Safety**

	Institute of Electrical and Electronic Engineers (IEEE) Radio Noise Design Guide.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Measures in effect throughout construction and operation
Interpretation & Approach	None required.
<b>Mitigation Measure</b>	<b>PS-1c. Document complaints of broadcast interference.</b> After energizing the transmission line, SDG&E shall respond to and document all radio/television/equipment interference complaints received and the responsive actions taken. These records shall be made available to the appropriate regulatory agency for review upon request. SDG&E shall refer all unresolved disputes to the approving agency.
Location	ECO Substation Project site and transmission line
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout operation of facility
Interpretation & Approach	None required.
<b>Mitigation Measure</b>	<b>PS-2. Determine proper grounding procedures and implement appropriate grounding measures.</b> As part of the project siting and construction process, SDG&E's contractor(s) shall identify objects (such as fences, conductors, and pipelines) that have the potential for induced voltages and work with the affected parties to determine proper grounding procedures (Note: CPUC General Order 95 and the NESC do not have specific requirements for grounding). SDG&E shall install all necessary grounding measures prior to energizing the line. At least 30 days prior to energizing the line, SDG&E shall notify in writing all property owners within and adjacent to the project's ROW regarding the date the line is to be energized, subject to the review and approval of the appropriate regulatory agency. The written notice shall provide a contact person and telephone number for answering questions regarding the line and guidelines on what activities should be limited or restricted within the ROW. The written notice shall describe the nature and operation of the line, and SDG&E's responsibilities with respect to grounding all conducting objects. In addition, the notice shall describe the property owner's responsibilities with respect to notification for any new objects that may require grounding and guidelines for maintaining the safety of the ROW.  SDG&E shall respond to and document all complaints received and the responsive action taken. These records shall be made available to the appropriate regulatory agency for review upon request. SDG&E shall refer all unresolved disputes to the approving agency for resolution.
Location	ECO Substation Project site and all project components
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out at the appropriate time.
Responsible Agency	CPUC/BLM
Timing	As part of project siting and construction process, but prior to approval of final construction plans; plan in effect throughout construction and operation
Interpretation & Approach	None required.

# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 12  
Mitigation Measures – Air Quality**

Mitigation Measure	<p>AQ-1. The following measures shall be incorporated to reduce fugitive dust and other criteria pollutant emissions during construction activities:</p> <ul style="list-style-type: none"> <li>• Rock aprons or rattle plates will be installed as needed at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site.</li> <li>• All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with nontoxic soil stabilizers as needed to control fugitive dust.</li> <li>• All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles.</li> <li>• Exposed stockpiles (e.g., dirt, sand, etc.) will be covered and/or watered or stabilized with nontoxic soil binders as needed to control emissions.</li> <li>• Trucks transporting bulk materials will be completely covered unless 2 feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material.</li> <li>• Movement of bulk material handling or transfer will be stabilized prior to handling or at a point of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line.</li> <li>• Traffic speeds on unpaved roads and the ROW will be limited to 15 miles per hour.</li> <li>• Vehicle idling time will be limited to a maximum of 5 minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task.</li> <li>• Road graders used during site development activities will be equipped with a CARB-verified Level 2 diesel emission control strategy or a comparable diesel-control technology that will reduce inhalable particulate matter (PM<sub>10</sub>) emissions by 50% or more.</li> <li>• If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule.</li> <li>• All off-road, diesel-powered construction equipment will be kept in good tune and maintained according to the manufacturer's specifications.</li> <li>• Construction equipment will use electric-powered motors where feasible.</li> <li>• The construction contractor will prepare and implement a high-wind dust control plan and terminate soil disturbance when winds exceed 25 miles per hour.</li> <li>• The construction contractor will require 90-day, low-NO<sub>x</sub> tune-ups for off-road equipment.</li> <li>• Diesel particulate filters will be utilized on heavy equipment where feasible.</li> <li>• Construction activities will comply with all applicable SDAPCD rules and regulations.</li> </ul>
Location	ECO Substation Project site and all project components.
Monitoring/Reporting Action	CPUC and BLM will ensure that these measures are carried out during project construction.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction.
Interpretation & Approach	None required.



## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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**Table 12**  
**Mitigation Measures – Air Quality**

Mitigation Measure	AQ-2. All off-road diesel engines with a rated output of greater than 50 horsepower will, at a minimum, meet the Tier 2 California Emissions Standards for Off-Road Compression Ignition Engines. If reasonably available, Tier 3 engines will be employed. SDG&E shall provide verification that the construction fleet meets the requirements identified as part of this mitigation measure.
Location	ECO Substation Project site and all project components.
Monitoring/Reporting Action	CPUC and BLM will ensure that all off-road equipment meets Tier 2 (or Tier 3) standards.
Responsible Agency	CPUC/BLM
Timing	Plan in effect throughout construction.
Interpretation & Approach	SDG&E shall provide written documentation from construction contractors indicating the type of off-road construction equipment being utilized on site and whether the off-road equipment meets Tier 2 or Tier 3 standards.

**Table 13**  
**Mitigation Measures – Water Resources**

Mitigation Measure	<p><b>HYD-1: A Stormwater Pollution Prevention Plan shall be prepared to reduce soil erosion during construction.</b> In compliance with the new SWRCB's NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002, effective July 1, 2010), SDG&amp;E shall prepare a project-specific SWPPP before construction begins, and it shall be kept on site throughout the construction process. The SWPPP shall include the following:</p> <ul style="list-style-type: none"> <li>• Identification of pollutant sources and non-stormwater discharges associated with construction activity.</li> <li>• Specifications for BMPs that shall be implemented during project construction to minimize the potential for accidental releases and runoff from the construction areas, including temporary construction yards, pull sites, and helicopter landing zones. Specifications shall include: <ul style="list-style-type: none"> <li>○ A plan for training construction crews</li> <li>○ A plan for monitoring and inspecting BMPs and site conditions</li> <li>○ A plan for sampling and analysis of pollutants (as necessary).</li> </ul> </li> <li>• Where applicable, the following shall apply: <ul style="list-style-type: none"> <li>○ Construction impacts shall be minimized to the greatest extent possible</li> <li>○ Upon completion of construction phases, roadways shall be reduced to minimum widths needed</li> <li>○ Areas disturbed during construction shall be revegetated to their natural states</li> <li>○ Construction roadways shall follow natural contours to the extent practical and be designed to minimize stream crossings, avoid wetlands, and maintain surface water runoff patterns to prevent erosion</li> <li>○ CDFG guidelines for culverts shall be followed to minimize long-term maintenance and meet a 10-year rain event to minimize trapping of sediment.</li> </ul> </li> <li>• Where applicable, the following shall apply to reduce the release of contaminants to the local surface and groundwater: <ul style="list-style-type: none"> <li>○ For on-site storm drain inlets, mark all inlets with the words "No Dumping! Flows to</li> </ul> </li> </ul>
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## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 13**  
**Mitigation Measures – Water Resources**

	<p>Sensitive Habitat" or similar.</p> <ul style="list-style-type: none"> <li>○ For landscaping, show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. Show self-retaining landscape, if any. State that final landscape plans will preserve existing native trees, shrubs, and ground cover will cover maximum extent possible.</li> <li>○ Design landscaping to minimize irrigation, runoff, and use of pesticides and fertilizers that contribute to stormwater pollution. Select plants that are appropriate for site soils, slopes, climate, wind, sun, rain, land use, ecological consistency, and plant interactions.</li> <li>○ For outdoor storage of equipment or materials, show storage areas and how they will be covered and what structural features or grading will be incorporated to prevent pollutants from discharging from the site.</li> <li>○ Designate areas for vehicle/equipment repair, maintenance, and cleaning, and document how these areas will be contained to prevent pollutant runoff.</li> <li>○ For leaking or failure of large power transformers, have 100% containment at each power transformer.</li> </ul>
Location	All areas disturbed by construction activities.
Monitoring/Reporting Action	CPUC and BLM will review SDG&E's SWPPP and ensure its implementation
Effectiveness Criteria	Construction and BMPs in place during construction, and kept operating as long as needed. Mitigation measure is effective if water quality near the project is maintained
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction.
Interpretation & Approach	SDG&E shall provide access to the SWPPP and documentation to the CPUC and BLM prior to construction verifying the SWPPP has been submitted to the RWQCB. Access to subsequent amendments to the SWPPP shall be provided to the CPUC and BLM within 48 hours of the SWPPP amendment being submitted to the RWQCB. Access to the Storm Water Construction Site Inspection Report Forms completed following a storm event will be posted in the Storm Water Multiple Application and Report Tracking System (SMARTS) to be accessed by the CPUC and BLM within 48 hours of a storm event.
Mitigation Measure	<b>HYD-2: Avoidance and preventative measures to protect local groundwater during excavation.</b> Prior to excavation, a qualified geologist/hydrologist shall determine the depth of groundwater in areas where excavation would occur. The project shall be designed to avoid areas of shallow groundwater where feasible. In such areas where groundwater cannot be avoided during excavation, the site shall be dewatered during construction, and materials that could contaminate the groundwater shall be kept at least 200 feet from the dewatering activities. An NPDES permit shall be obtained for proper disposal of water. Treatment may be required prior to discharge.
Location	Along entire Project Site
Monitoring/Reporting Action	CPUC and BLM will ensure dewatering is completed consistent with NPDES permit requirements.
Effectiveness Criteria	Approval and implementation of the construction plans
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 13**  
**Mitigation Measures – Water Resources**

Interpretation & Approach	A report shall be submitted to the CPUC and BLM prior to construction indicating the depth of groundwater in areas being excavated for steel poles, underground trenches, and/or substation foundations. The report shall identify siting efforts that were completed to minimize impacts to shallow groundwater resources.
Mitigation Measure	<p><b>HYD-3: Identification of sufficient water supply</b></p> <p>Prior to construction SDG&amp;E will prepare comprehensive documentation that identifies one or more confirmed, reliable water sources that when combined meet the project's full water supply construction needs. Documentation will consist of the following:</p> <ul style="list-style-type: none"> <li>• <i>Preparation of a groundwater study.</i> For well water that is to be used, the applicant will commission a groundwater study by a qualified hydrogeologist to assess the existing condition of the underlying groundwater/aquifer and all existing wells (with owner's permission) in the vicinity of proposed well location/water sources. The groundwater study will evaluate aquifer properties and aquifer storage. The groundwater study will estimate short and long-term well water supplies from each well proposed to be used, and documentation indicating that each well is capable of producing the total amount of water to be supplied for construction from each well. The groundwater study will estimate short- and long-term impacts of the use of the well(s) on the local groundwater production (short-term extraction for construction water and ongoing O&amp;M water), on all project wells, and on other wells in the project area. The groundwater study will include an assessment of the potential for subsidence brought on by project-related water use in the area. The applicant will provide demonstration of compliance will all applicable laws and regulations and will obtain a County of San Diego Major Use Permit for use of any proposed well prior to construction.</li> <li>• <i>Documentation of Purchased Water Source(s).</i> For water that is to be purchased from one or more water/utility district(s), the applicant shall provide written documentation from such district(s) indicating the total amount of water to be provided and the time frame that the water will be made available to the project. The Sweetwater Authority has provided written confirmation of water availability to support the project.</li> </ul> <p>Total confirmed water supplies from the combination of above documented sources shall equal the total gallons of water needed through construction of the project.</p>
Location	Along entire Proposed Project site
Monitoring/Reporting Action	CPUC and BLM will review SDG&E's groundwater study and ensure its implementation
Effectiveness Criteria	Water Study verified groundwater quantities and Will Serve Letter quantities add up to equal estimated project construction water needs
Responsible Agency	CPUC/BLM
Timing	Submittal of groundwater study to CPUC and BLM a minimum 60 days prior to project design being completed.
Interpretation & Approach	None required.
Mitigation Measure	<p><b>HYD-4: Preparation of a Stormwater Management Plan.</b> SDG&amp;E shall commission an SWMP in compliance with the County of San Diego Major Storm Water Management Plan. The SWMP shall be project specific and developed in conjunction with project design. The SWMP shall include site design BMPs that, where applicable, shall:</p> <ul style="list-style-type: none"> <li>• Maintain predevelopment rainfall runoff characteristics. The BMPs shall: <ul style="list-style-type: none"> <li>○ Locate the project and road improvement alignments to avoid or minimize impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions</li> <li>○ Minimize the project's impervious footprint.</li> </ul> </li> </ul>

# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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**Table 13**  
**Mitigation Measures – Water Resources**

	<ul style="list-style-type: none"> <li>○ Conserve natural and critical areas, such as floodplains, steep slopes, wetlands, and areas with erosive and unstable soil conditions</li> <li>○ Where landscape is proposed, drain rooftops, impervious sidewalks, walkways, trails, and patios into adjacent landscaping</li> <li>○ Design and locate roadway structures and bridges to reduce the amount of work in live streams, and minimize the construction impacts</li> <li>○ Implement the following methods to minimize erosion from slopes:             <ul style="list-style-type: none"> <li>▪ Disturb existing slopes only when necessary</li> <li>▪ Minimize cut-and-fill areas to reduce slope lengths</li> <li>▪ Incorporate retaining walls to reduce steepness of slopes or to shorten slopes</li> <li>▪ Provide benches or terraces on high cut-and-fill slopes to reduce concentration of flows</li> <li>▪ Round and shape slopes to reduce concentrated flow</li> <li>▪ Collect concentrated flows in stabilized drains and channels.</li> </ul> </li> <li>● Protect slopes and channels. The BMPs shall:             <ul style="list-style-type: none"> <li>○ Minimize disturbances to natural drainages</li> <li>○ Convey runoff safely from the tops of slopes</li> <li>○ Vegetate slopes with native or drought-tolerant vegetation</li> <li>○ Stabilize permanent channel crossings</li> <li>○ Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters.</li> <li>○ Include other design principles that are comparable and equally effective.</li> </ul> </li> <li>● The SWMP shall also incorporate Low Impact Development Features into the project, including but not limited to:             <ul style="list-style-type: none"> <li>○ Preserve well-draining soils (Type A or B)</li> <li>○ Preserve significant trees</li> <li>○ Set back development envelope from drainages</li> <li>○ Restrict heavy construction equipment access to planned green/open space areas</li> <li>○ Re-till soils compacted by construction vehicles/equipment</li> <li>○ Collect and reuse upper soil layers of development site containing organic materials</li> <li>○ Curb cuts to landscaping</li> <li>○ Use rural swales</li> <li>○ Use concave median</li> <li>○ Use permeable pavements</li> <li>○ Pitch pavements toward landscaping</li> <li>○ Use cisterns and rain barrels</li> <li>○ Downspout to swale</li> <li>○ Use vegetated roofs</li> <li>○ Use soil amendments</li> <li>○ Reuse native soils</li> <li>○ Use smart irrigation systems</li> <li>○ Use street trees (HDR 2009b).</li> </ul> </li> </ul> <p>The SWMP shall ensure that the project follows CDFG guidelines for culverts to minimize long-term maintenance and meet a 10-year rain event to minimize the trapping of sediment.</p>
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# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 13  
Mitigation Measures – Water Resources**

Location	Along entire Proposed Project Site
Monitoring/Reporting Action	San Diego County Department of Public Works shall ensure the SWMP is in compliance with the County of San Diego Major Storm Water Management Plan and its implementation as written.
Effectiveness Criteria	Approval and implementation of the SWMP
Responsible Agency	CPUC/BLM
Timing	A SWMP that has been reviewed and approved by the San Diego County Department of Public Works shall be submitted to CPUC and BLM 30 days prior to project construction
Interpretation & Approach	None required.
Mitigation Measure	<p><b>HYD-5: Implementation of creek-crossing procedures.</b> Where creek crossings can be completed during dry season, with no flows present in the creek, seasonally timed restorative open trenching will be completed. This procedure will use minimum trench widths. Trench cut material will not be placed outside of the creek bed and outside of 100-year inundated areas. Trench fill will be compacted and replaced to existing conditions, including matching existing creek bed gradations, and restoring vegetation. Open trenching restoration will be completed prior to any wet season flows, and will include anti-erosion action plans for any unplanned rainfall during construction. The applicant shall obtain all required permits prior to completing open trenching through drainages. In any case, flows will be isolated from open trenching by best management practices mandated by the General Construction Permit. Areas of trenching would be restored and/or vegetated at completion of work. Where creek crossing cannot be completed during the dry season creek crossing shall use jack-and-bore procedures to avoid direct impacts and shall be conducted in a manner that does not result in sediment-laden discharge or hazardous materials release to the water body. The following measures shall be implemented during horizontal boring (jack-and-bore) operations:</p> <ol style="list-style-type: none"> <li>(1) Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages.</li> <li>(2) Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention).</li> <li>(3) Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times.</li> <li>(4) Immediately following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion, and temporary sediment barriers shall be left in place until restoration is deemed successful.</li> </ol> <p>(The applicant shall obtain the required permits prior to conducting creek crossing work. Required permits may include ACOE CWA Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement 1602. The applicant shall implement all pre- and post-construction conditions identified in the permits issued. The plan shall be submitted to the CPUC, County of San Diego, and ACOE 60 days prior to construction.</p>
Location	Along underground portion of transmission line, where applicable

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 13**  
**Mitigation Measures – Water Resources**

Monitoring/Reporting Action	SDG&E to prepare a directional drill plan with associated SWPPP for CPUC, BLM, and ACOE approval prior to construction, when applicable
Effectiveness Criteria	Directional drilling rather than trenching, where applicable
Responsible Agency	CPUC/BLM/ACOE
Timing	Prior to and during construction
Interpretation & Approach	The placement of the word “not” in the MM was an error. All spoils will not be placed within any creek beds.
Mitigation Measure	<b>HYD-6: Horizontal Directional Drill Contingency Plan.</b> If horizontal directional drilling is to be used during construction SDG&E shall prepare a Horizontal Directional Drill Contingency Plan to address procedures for containing an inadvertent release of drilling fluid (frac-out). The plan shall contain specific measures for monitoring frac-outs, for containing drilling mud, and for notifying agency personnel. The plan shall also discuss spoil stockpile management, hazardous materials storage and spill cleanup, site-specific erosion and sediment control, and housekeeping procedures, as described in the SWPPP. The plan shall be submitted to the CPUC, BLM, and ACOE 60 days prior to construction. SDG&E shall obtain the required permits prior to conducting work associated with horizontal directional drilling activities. Required permits may include U.S. Army Corps of Engineers Clean Water Act Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement Section 1602. SDG&E shall implement all pre- and post-construction conditions identified in the permits issued for the horizontal directional drilling.
Location	Along underground portion of transmission line, where applicable
Monitoring/Reporting Action	SDG&E to prepare a horizontal direction drill plan with associated SWPPP for CPUC, BLM, and ACOE approval prior to construction, when applicable
Effectiveness Criteria	Approval and implementation of Horizontal Directional Drill Contingency Plan, if necessary
Responsible Agency	CPUC/BLM/ACOE
Timing	Prior to and during construction
Interpretation & Approach	None required.
Mitigation Measure	<b>HYD-7: Bury power line below 100-year scour depth.</b> At locations where the buried power line is to be at or adjacent to a streambed capable of scour, the power line shall be located below the expected depth of scour from a 100-year flood, or otherwise protected from exposure by scour that, for purposes of this mitigation measure, also includes lateral (stream bank) erosion and potential scour associated with flows overtopping or bypassing a culvert or bridge crossing. During final design, a registered civil engineer with expertise in hydrology, hydraulics, and river mechanics shall make a determination of where the underground line could be at risk of exposure through scour or erosion from a 100-year event.
Location	Along underground portion of transmission line, where applicable
Monitoring/Reporting Action	SDG&E to provide CPUC and BLM with an engineering report, sealed by a civil engineer registered in the State of California, demonstrating project components that may reasonably be subject to erosion during the life of the project. The report shall also provide plans for protection from scour, as well as an engineering demonstration that the project components will not induce erosion onto adjacent property. CPUC and BLM to monitor to verify compliance during construction.
Effectiveness Criteria	Project components to withstand scour with no adverse effect on adjacent property.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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**Table 13  
Mitigation Measures – Water Resources**

Responsible Agency	CPUC/BLM
Timing	Engineering evaluation, and associated scour/erosion protection design plans, shall be submitted to the CPUC and BLM for review and approval 60 days prior to the initiation of construction. Compliance to be ensured during construction.
Interpretation & Approach	None required.

**Table 14  
Mitigation Measures – Geology, Mineral Resources, and Soils**

Mitigation Measure	<b>GEO-1: Erosion Control and Sediment Transport Control Plan.</b> The Erosion Control and Sediment Transport Control Plan would be included with the project grading plans submitted to the County for review and comment. The plan would be submitted to CPUC and BLM a minimum of 60 days prior to project design and would be prepared in accordance with the standards provided in the Manual of Erosion and Sedimentation Control Measures and consistent with practices recommended by the Resource Conservation District of Greater San Diego County. Implementation of the plan would help stabilize soil in graded areas and waterways and reduce erosion and sedimentation. The plan would designate BMPs that would be implemented during construction activities. Erosion control efforts, such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (e.g., flagging), vehicle mats in wet areas, and retention/settlement ponds, would be installed before extensive soil clearing and grading begins. Appropriate stabilization measures, such as mulching or seeding, would be used to protect exposed areas during construction activities. Revegetation plans, the design and location of retention ponds, and grading plans would be submitted to the CDFG and ACOE for review in the event of construction near waterways. In disturbed areas where construction equipment has caused compaction of soils (e.g., staging areas, structure sites, temporary spur roads, etc.), soils would be decompacted as necessary prior to seeding, and reclamation would occur to enhance revegetation and reduce potential for erosion.
Location	Along entire proposed project site
Monitoring/Reporting Action	CPUC and BLM
Effectiveness Criteria	Implementation of the Erosion Control and Sediment Transport Control Plan
Responsible Agency	CPUC/BLM
Timing	Compliance to be ensured during construction
Interpretation & Approach	None required.
Mitigation Measure	<b>GEO-2: Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.</b> The design-level geotechnical studies to be performed by SDG&E shall identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures shall be utilized for protection of reinforcement, concrete, and metal-structural components against corrosion, including use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 14**  
**Mitigation Measures – Geology, Mineral Resources, and Soils**

	to industry standards of care and ASTM standards for field and laboratory testing. Design shall conform to applicable sections of the County of San Diego grading codes, CBC, and the standard specifications for public works construction. The geotechnical studies prepared by a certified geologist shall be submitted to CPUC and BLM 60 days prior to construction of proposed structures.
Location	All project components where structures are proposed.
Monitoring/Reporting Action	Results of geotechnical studies are reviewed to ensure that recommendations are implemented during construction.
Effectiveness Criteria	Assurance that proposed structures are not damaged by geologic conditions.
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>GEO-3: Conduct geotechnical investigations.</b> The applicant shall perform design-level geotechnical investigations to evaluate the potential for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures that meet CBC and IEEE design parameters shall be incorporated into the project designs. Appropriate measures for project facilities could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in underground cables to allow ground deformations without damage to structures. The geotechnical investigations prepared by a certified geologist shall be submitted to CPUC and BLM 60 days prior to construction of proposed structures.
Location	All project components where structures are proposed
Monitoring/Reporting Action	Results of geotechnical investigations are reviewed to ensure that recommendations are implemented during construction
Effectiveness Criteria	Assurance that proposed structures are not damaged by geologic conditions.
Responsible Agency	CPUC/BLM
Timing	Prior to and during construction.
Interpretation & Approach	None required.
Mitigation Measure	<b>GEO-4: Facilities inspections conducted following major seismic event.</b> If large levels of ground shaking (such as Modified Mercalli Intensity VI or greater) are experienced or a major earthquake (magnitude 6.0 and above) occurs along the Elsinore Fault, a professional licensed geologist, geotechnical engineer, and structural engineer hired by SDG&E shall perform facilities inspections as quickly as possible. Careful examination shall be conducted of all project facilities. Any required repair or needed improvements shall be implemented as soon as feasible to ensure that the integrity of project facilities has not been compromised.
Location	All project components where structures are proposed.
Monitoring/Reporting Action	Results of facilities inspections are reviewed to ensure that recommendations are implemented following a seismic event.
Effectiveness Criteria	Assurance that proposed structures are not damaged by a seismic event and that repairs are completed as soon as feasible.
Responsible Agency	CPUC/BLM
Timing	Completion of inspections as quickly as possible following a seismic event.
Interpretation & Approach	None required.



## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 15**  
**Mitigation Measures – Public Services and Utilities**

Mitigation Measure	<b>PSU-1a. Notification of utility service interruption.</b> Prior to construction in which a utility service interruption is known to be unavoidable, SDG&E shall notify members of the public affected by the planned outage by mail of the impending interruption, and shall post flyers informing the public of the service interruption in neighborhoods affected by the planned outage. Copies of notices and dates of public notification shall be provided to the applicable lead agency.
Location	Locations where existing utility services would have planned interruption of services (proposed ECO Substation Project)
Monitoring/Reporting Action	CPUC and BLM to confirm that SDG&E has posted notices/flyers and that copies have been submitted to the CPUC and BLM for review prior to posting.
Effectiveness Criteria	Residents and landowners are informed of planned outages.
Responsible Agency	CPUC/BLM
Timing	CPUC and BLM to verify planned outage noticing by SDG&E prior to the start of project construction in areas where utility service interruption is known to be unavoidable.
Interpretation & Approach	None required.
Mitigation Measure	<b>PSU-1b. Protect underground utilities.</b> Prior to construction of the transmission/gen-tie line, SDG&E shall submit to the CPUC and BLM written documentation, including evidence of review by the appropriate jurisdictions, including the following: <ul style="list-style-type: none"> <li>• Construction plans designed to protect existing utilities and that show the dimensions and location of the finalized alignment</li> <li>• Records that the applicant provided the plans to affected jurisdiction for review, revision, and final approval</li> <li>• Evidence that the project meets all necessary local requirements</li> <li>• Evidence of compliance with design standards</li> <li>• Copies of necessary permits, agreements, or conditions of approval</li> <li>• Records of discretionary decisions made by the appropriate agencies.</li> </ul>
Location	Along the entire transmission line route (proposed ECO Substation Project)
Monitoring/Reporting Action	CPUC and BLM to confirm receipt of written documentation from SDG&E.
Effectiveness Criteria	Disruption of existing utilities during construction is minimized.
Responsible Agency	CPUC/BLM
Timing	SDG&E to submit documentation to CPUC and BLM prior to construction of transmission lines
Interpretation & Approach	None required.
Mitigation Measure	<b>PSU-1c. Coordinate with utility providers.</b> SDG&E shall coordinate with all applicable utility providers with facilities located within or adjacent to the project to ensure that design does not conflict with other facilities prior to construction. In the event of a conflict, the project will be aligned vertically and/or horizontally as appropriate to avoid other utilities and provide adequate operational and safety buffering. Alternately, the other existing facilities may be relocated. Long-term operations and maintenance of the project will be negotiated through easement, purchased ROW, franchise agreement, or joint use agreement.
Location	Along the entire transmission line route associated with the proposed ECO Substation Project.
Monitoring/Reporting Action	CPUC and BLM to confirm that SDG&E has coordinated with all potentially affected utility providers

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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**Table 15**  
**Mitigation Measures – Public Services and Utilities**

Effectiveness Criteria	Utilities are contacted regarding construction plans and existing facilities are avoided during construction.
Responsible Agency	CPUC/BLM
Timing	CPUC and BLM to verify coordination efforts at final design.
Interpretation & Approach	None required.

**Table 16**  
**Mitigation Measures – Fire and Fuels Management**

Mitigation Measure	<p><b>FF-1: Develop and implement a Construction Fire Prevention/Protection Plan.</b> San Diego Gas &amp; Electric Company (SDG&amp;E) shall develop a multiagency Construction Fire Prevention/Protection Plan in consultation with the California Department of Forestry and Fire Protection (CAL FIRE), San Diego Rural Fire Protection District (SDRFPD), and San Diego County Fire Authority (SDCFA) to the satisfaction of the CPUC. SDG&amp;E shall monitor construction activities to ensure implementation and effectiveness of the plan. The final plan will be approved by the CPUC prior to the initiation of construction activities and shall be implemented during all construction activities by SDG&amp;E. At minimum, the plan will include the following:</p> <ul style="list-style-type: none"> <li>• Procedures for minimizing potential ignition <ul style="list-style-type: none"> <li>○ vegetation clearing</li> <li>○ fuel modification establishment</li> <li>○ parking requirements</li> <li>○ smoking restrictions</li> <li>○ hot work restrictions</li> </ul> </li> <li>• Red Flag Warning restrictions</li> <li>• Fire coordinator role and responsibility</li> <li>• Fire suppression equipment on site at all times work is occurring</li> <li>• Requirements of Title 14 of the California Code of Regulations (CCR), Article 8 #918 “Fire Protection” for private land portions</li> <li>• Access road widening (28-foot County roads, 18-foot-wide spur roads)</li> <li>• Applicable components of the SDG&amp;E Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009)</li> <li>• Emergency response and reporting procedures</li> <li>• Emergency contact information</li> <li>• Worker education materials; kick-off and tailgate meeting schedules</li> <li>• Other information as provided by CAL FIRE, SDRFPD, SDCFA, CPUC, and Bureau of Land Management (BLM).</li> </ul> <p>Additional restrictions will include the following:</p> <ul style="list-style-type: none"> <li>• During the construction phase of the project, SDG&amp;E shall implement ongoing fire patrols. SDG&amp;E shall maintain fire patrols during construction hours and for 1 hour after end of daily construction, and hotwork</li> <li>• Fire Suppression Resource Inventory – In addition to 14 CCR 918.1(a), (b), and (c), SDG&amp;E shall update in writing the 24-hour contact information and on-site fire</li> </ul>
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## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 16**  
**Mitigation Measures – Fire and Fuels Management**

	<p>suppression equipment, tools, and personnel list on a quarterly basis and provide it to the CAL FIRE, SDRFPD, and SDCFA.</p> <ul style="list-style-type: none"> <li>• During Red Flag Warning events, as issued daily by the National Weather Service in state responsibility areas (SRAs) and local responsibility areas (LRA), all non-essential, non-emergency construction and maintenance activities shall cease or be required to operate under Hot Work Procedure.</li> <li>• SDG&amp;E and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF.</li> <li>• All construction crews and inspectors shall be provided with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon ignition.</li> <li>• Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crewmembers as-needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect.</li> <li>• Each member of the construction crew shall be trained and equipped to extinguish small fires with hand-held fire extinguishers in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 feet of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Prevention/Protection Plan.</li> </ul> <p>SDG&amp;E will provide a draft copy of the Construction Fire Prevention/Protection Plan to the CAL FIRE, SDRFPD, and SDCFA for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&amp;E and revisions to the plan will address each comment to the satisfaction of the CPUC. The final plan will be approved by the CPUC with input from CAL FIRE, SDRFPD, SDCFA, and BLM, as desired, prior to the initiation of construction activities and provided to SDG&amp;E for implementation during all construction prior to the initiation of construction activities. All construction work on the ECO Substation Project shall follow the Construction Fire Prevention/Protection Plan guidelines and commitments.</p>
Location	At ECO Substation, access roads/work areas.
Monitoring/Reporting Action	CAL FIRE, Rural Fire Protection District, SDCFA, BLM, and CPUC will review SDG&E's Construction Fire Prevention/Protection Plan and ensure its implementation.
Effectiveness Criteria	<p>Approval and implementation of the plan.</p> <p>Quarterly updates to agencies.</p> <p>Work stoppage during Red Flag Warnings and Very High PAL.</p> <p>Coordination with fire authority.</p>
Responsible Agency	CAL FIRE, Rural Fire Protection District, SDCFA, BLM, CPUC.
Timing	<p>Minimum 90 days prior to scheduled start of construction for draft of Construction Fire Prevention/Protection Plan.</p> <p>Minimum 30 days prior to scheduled start of construction for final plan.</p> <p>Plan in effect throughout construction.</p>

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 16**  
**Mitigation Measures – Fire and Fuels Management**

Interpretation & Approach	The U.S. Forest Service does not have to review the Project's fire plans. Access/spur road width requirements only apply to the ECO Substation.
Mitigation Measure	<p><b>FF-2: Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009) to Create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan.</b> The revised plan will address the ECO Substation Project and will be implemented during all operational maintenance work associated with the project for the life of the project. Important fire safety concepts that will be included in this document are as follows:</p> <ul style="list-style-type: none"> <li>• Implement existing practices including Electric Standard Practice 113.1, Maintenance of existing Remote Automated Weather Stations and territory-wide weather system monitoring, adjusted system reclosing policies (patrols), replacement of wood poles with steel in priority areas, and additional measures as may be developed, participation in San Diego County FireSafe Council and other public outreach.</li> <li>• Guidance on where maintenance activities may occur (non-vegetated areas, cleared access roads, and work pads that are approved as part of the project design plans) Fuel modification buffers required by the Fire Protection Plan (FPP)</li> <li>• When vegetation work will occur (prior to any other work activity)</li> <li>• Timing of vegetation clearance work to reduce likelihood of ignition and or fire spread</li> <li>• Coordination procedures with fire authority</li> <li>• Integration of the project's Construction Fire Prevention/Protection Plan content</li> <li>• Personnel training and fire suppression equipment</li> <li>• Fire safety coordinator role as manager of fire prevention and protection procedures, coordinator with fire authority and educator</li> <li>• Communication protocols</li> <li>• Incorporation of CAL FIRE, San Diego Rural Fire Protection District (SDRFPD), and SDCFA reviewed and approved Response Plan mapping and assessment.</li> <li>• Other information as provided by CAL FIRE, SDRFPD, SDCFA, BLM, and CPUC</li> </ul> <p>SDG&amp;E will provide a draft copy of the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational; Maintenance Plan to CAL FIRE, SDRFPD, SDCFA, BLM, and CPUC for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&amp;E and plan revisions will address each comment to the satisfaction of the CPUC. The final plan will be approved by the CPUC prior to energizing the project and provided to SDG&amp;E for implementation during all operational maintenance activities.</p>
Location	At ECO Substation, access roads/work areas.
Monitoring/Reporting Action	CAL FIRE, Rural Fire Protection District, SDCFA, BLM, and U.S. Forest Service (USFS) will review and provide comments. CPUC will approve SDG&E's revised Fire Plan for Electric Standard Practice. CPUC and BLM will verify adoption of plan.
Effectiveness Criteria	Approval and implementation of the plan. Quarterly updates to agencies. Work stoppage during Red Flag Warnings and Very High PAL. Ongoing coordination with Fire Authority.
Responsible Agency	CAL FIRE, Rural Fire Protection District, and SDCFA.
Timing	Review and approval of plan minimum 90 days prior to energizing the ECO Substation Project. Revision every 5 years thereafter.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 16  
Mitigation Measures – Fire and Fuels Management**

Interpretation & Approach	None required.
Mitigation Measure	<p><b>FF-3: Provide Assistance to San Diego Rural Fire Protection District (SDRFPD) and San Diego County Fire Authority (SDCFA).</b> Provide assistance to SDRFPD and SDCFA to improve the response and firefighting effectiveness near electrical substations, transmission lines, and aerial infrastructure based on project fire risk and protection needs. Assistance by SDG&amp;E shall include providing funding for one SDCFA Fire Code Specialist II position to enforce existing fire code requirements, including but not limited to implementing required fuel management requirements (e.g., defensible space), in priority areas to be identified by the SDCFA for the life of the project. All fuel management activities shall be in accordance with CEQA Guidelines Section 15304 (j), which indicates that the minor land alternation activities will not have a significant effect on the environment, as the activities will not result in the taking of endangered, rare, or threatened plant or animal species or significant erosion and sedimentation of surface waters. In addition, SDG&amp;E is to provide funding to allow SDCFA to employ up to four volunteer/reserve firefighters as part-time code inspectors on a stipend basis for up to 90 days per year for the life of the project. The funding for the SDCFA Fire Code Specialist II position and the four volunteer/reserve firefighters as part-time code inspectors will be provided through proportional contributions, to be determined by CPUC and BLM, from SDG&amp;E (and the other applicants) to the SDCFA prior to construction.</p> <p>A fixed annual fire mitigation fee of approximately \$116,600 will be provided by SDG&amp;E to SDRFPD for mitigation funding. The funding will be utilized to assist with the purchase and maintenance of a Type I engine with an aqueous film forming foam (AFF) apparatus with a deck gun to apply a heavy stream. In addition, the funding will be utilized to provide for a third volunteer stipend to staff the engine with firefighters and training for electrical firefighting for 10 personnel (2 per year on a 5-year rotation). The fire mitigation fee will be paid annually during the life of the project and terminated upon decommissioning of the substation and related facilities.</p>
Location	At ECO Substation Project site, access roadway/work areas.
Monitoring/Reporting Action	CPUC, SDRFPD, and SDCFA verify position(s) are filled.
Effectiveness Criteria	Hiring of position(s) complete.
Responsible Agency	SDRFPD/SDCFA/CPUC.
Timing	New position(s) in place at beginning of construction and through life of project.
Interpretation & Approach	None required.
Mitigation Measure	<p><b>FF-4: Customized Fire Protection Plan for Project.</b> A draft Fire Protection Plan (FPP) will be submitted to CAL FIRE, SDRFPD, and SDCFA at least 90 days before the start of any construction activities. Comment on the draft FPP shall be provided to SDG&amp;E and SDG&amp;E shall resolve each comment in consultation with each responsible agency. The final FPP shall be approved by the CPUC prior to the initiation of construction activities. The FPP will include, at minimum, the following:</p> <ul style="list-style-type: none"> <li>• San Diego County FPP Content Requirements (<a href="http://www.sdcounty.ca.gov/dplu/docs/Fire-Report-Format.pdf">http://www.sdcounty.ca.gov/dplu/docs/Fire-Report-Format.pdf</a>)</li> <li>• Rural Fire Protection District Content Requirements <ul style="list-style-type: none"> <li>○ Provisions for fire safety and prevention</li> <li>○ Water supply</li> <li>○ Fire suppression/detection systems – built-in detection system with notification</li> <li>○ Secondary containment</li> </ul> </li> </ul>

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 16  
Mitigation Measures – Fire and Fuels Management**

	<ul style="list-style-type: none"> <li>○ Site security and access</li> <li>○ Emergency shut-down provisions</li> <li>● Integration into plans prepared to satisfy Mitigation Measures FF-1 and FF-2</li> </ul> <p>The FPP will be incorporated into MM FF-1, the Construction Fire Prevention/Protection Plan, and MM FF-2, the Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009)<sup>2</sup> Operational Maintenance Plan. The Customized Fire Protection Plan will incorporate clarifications and additional ECO Substation Project APMs described in Section B of this EIR/EIS.</p>
Location	Applicable to ECO Substation site, access roads, and work areas.
Monitoring/Reporting Action	CPUC and BLM verify FPP is prepared and SDGE& has adequately addressed comments from CAL FIRE Rural Fire Protection District, and SDCFA.
Effectiveness Criteria	FPP is created. FPP requirements are implemented project wide.
Responsible Agency	Rural Fire Protection District/SDCFA/CAL FIRE
Timing	Findings incorporated into Plans created to satisfy Mitigation Measures FF-1 and FF-2. Comments provided to SDG&E a minimum of 60 days prior to scheduled start of construction. Final FPP completed a minimum of 30 days prior to the scheduled start of construction. Plan applicable for life of project.
Interpretation & Approach	None required.
Mitigation Measure	<b>FF-6: Funding for FireSafe Council.</b> Provide funding for Boulevard/Jacumba/La Posta FireSafe Council with a clarified focus of coordinating a Community Wildfire Protection Plan (CWPP) and Evacuation Plan. Funding for the Boulevard/Jacumba/La Posta FireSafe Council will enable this newly formed organization a means to proactively complete these plans, provisions for applying for grant funding, and ultimately, for implementing fuel reduction and evacuation plans. Funding will be a lump sum, one-time amount with SDG&E providing fair share of CWPP and Evacuation Plan preparation.
Location	Funds to be allocated for hazard reduction projects within the nearest jurisdiction/FireSafe Council boundary with assets to be protected.
Monitoring/Reporting Action	County/Boulevard/Jacumba/La Posta FireSafe Council verifies project contributions.
Effectiveness Criteria	Funds are deposited. Community Wildfire Protection Plan is prepared and/or hazard reduction projects are initiated and completed.
Responsible Agency	Boulevard/Jacumba/La Posta FireSafe Council monitors SDG&E's fund contribution.
Timing	Prior to construction, one-time, lump sum
Interpretation & Approach	None required.

<sup>2</sup>[http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/Attach%204\\_07-B%20Wildland%20Fire%20Prevention%20and%20Safety%20Practice.pdf](http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/Attach%204_07-B%20Wildland%20Fire%20Prevention%20and%20Safety%20Practice.pdf)

# East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 16  
Mitigation Measures – Fire and Fuels Management**

Mitigation Measure	<p><b>FF-7: Preparation of Disturbed Area Revegetation Plan.</b> All areas disturbed during construction activities that will not be continuously included in the long-term maintenance access right-of-way (ROW) will be provided native plant restoration in order to prevent non-native, weedy plants from establishing. Disturbed areas that will be included in the long-term maintenance program will not be revegetated as any plants that establish in these areas will be removed on an ongoing (at least annual) basis.</p> <p>Mitigation Measure FF-7 corresponds with Mitigation Measure Bio-1d and is not a duplicative plan but will be implemented under the biological monitoring program. It directs that the temporary disturbance areas will be revegetated with native plants common to the area through direction detailed in a Habitat Restoration Plan. The Habitat Restoration Plan will be prepared to restore native habitat and to reduce the potential for non-native plant establishment. The restoration plan will incorporate a Noxious Weeds and Invasive Species Control Plan to assist in restoring the construction area to the prior vegetated state and lessen the possibility of establishment of non-native, flammable plant species. A copy of the Revegetation Plan will be provided to the CPUC and BLM.</p>
Location	All disturbed areas of ECO Substation, access roadway and work areas.
Monitoring/Reporting Action	CPUC and BLM to verify that restoration plan has been submitted and is implemented.
Effectiveness Criteria	Restoration plan will designate monitoring frequency and duration and success criteria.
Responsible Agency	CPUC/BLM.
Timing	Plan submitted to CPUC and BLM for review 90 days prior to energizing the substation and related facilities. Restoration will be initiated at earliest opportunity upon completion of soil-disturbing activities.
Interpretation & Approach	None required.

## 6.3 Applicant Proposed Measures

Table 17 lists the APMs included in the FEIR/FEIS that were not superseded in the FEIR/FEIS by mitigation measures presented in Section 6.2.

**Table 17  
Applicant Proposed Measures**

ECO-BIO-07	A biological monitor will be present during all ground-disturbing and vegetation removal activities. Immediately prior to initial ground-disturbing activities and/or vegetation removal, the biological monitor will survey the site to ensure that no sensitive species will be impacted.
ECO-BIO-08	Prior to construction, all SDG&E, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including appropriate wildlife avoidance; impact minimization procedures; the importance of these resources, and the purpose and necessity of protecting them; and methods for protecting sensitive ecological resources. The training will include BMPs to reduce the potential for erosion and sedimentation during construction of the Project.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 17  
Applicant Proposed Measures**

ECO-BIO-09	Survey personnel will keep survey vehicles on existing roads. During Project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat will require prior approval from the Project biological monitor. Hiking off roads or paths for survey data collection will be allowed year-round as long as all of the other applicable APMs are met.
ECO-BIO-10	Except when not feasible due to physical or safety constraints, all Project vehicle movement will be restricted to existing access roads and access roads constructed as a part of the Project and determined and marked by SDG&E in advance of construction. Approval from a biological monitor will be obtained prior to any travel off of existing access roads.
ECO-BIO-20	Permanent retention basins will be constructed with escape ramps along two sides of the pond to allow entrapped wildlife to escape. The slope of the ramps will not exceed a two to one ratio and will be constructed of non-slippery material, or as specified by the biological monitor.
ECO-AES-1	To reduce potential visual contrast and integrate the ECO Substation's appearance with the desert landscape setting, when project construction has been completed, all disturbed terrain at the ECO Substation site will be restored through recontouring and revegetation in accordance with the Landscaping Plan included as Appendix 5: Landscape Concept Plans.
ECO-AES-2	When project construction has been completed, all disturbed terrain at the Boulevard Substation site will be restored through recontouring, revegetation, and landscaping in accordance with the Boulevard Substation Landscape Concept Plan included as Appendix 5: Landscape Concept Plans. To provide screening and thus reduce potential project visibility, the Boulevard Substation Landscape Concept Plan includes larger shrubs and trees that will partially screen views of the substation from Old Highway 80 and from adjacent residential properties.
ECO-AES-3	To reduce the project's potential visibility from Old Highway 80, the underground portion of the new 138 kV transmission line will be extended an additional distance of approximately 600 feet to the south, and the steel cable riser pole will be relocated to replace structure SP-2.
ECO-CUL-02	At least 120 days prior to construction, a cultural/historical resource consultant will be retained by SDG&E to complete an analysis and assessment of the potential to disturb resources that were identified during the initial studies from major ground-disturbing activities. The analysis and assessment will be prepared to meet the requirements of the CEQA and NEPA. Project component sites that require testing for significance determination will be treated on a case-by-case basis using all applicable criteria.
ECO-CUL-05	In the event that cultural resources are discovered, the archaeologist will have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program will be prepared and carried out to mitigate impacts.
ECO-CUL-06	All collected cultural remains will be cleaned, cataloged, and permanently curated with an appropriate institution. All artifacts will be analyzed to identify function and chronology as they relate to the history of the area. Faunal material will be identified as to species.



## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

**Table 17  
Applicant Proposed Measures**

ECO-CUL-7	A monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, will be prepared and submitted to SDG&E's Cultural Resource Specialist and Environmental Project Manager following termination of the program. Any noteworthy cultural sites or features encountered will be recorded with the South Coastal Information Center at San Diego State University and with the San Diego Museum of Man.
ECO-CUL-11	In the event that fossils are encountered, the Project paleontologist will have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. The paleontologist will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The paleontologist, in consultation with SDG&E's Cultural Resource Specialist will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on site. When fossils are discovered, the paleontologist (or paleontological monitor) will recover them along with pertinent stratigraphic data. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk-sedimentary-matrix samples for off-site wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage will be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections.
ECO-NOI-1	Construction activities will occur during the times established by the local ordinances (generally between 7 a.m. and 7 p.m. Monday through Saturday), with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, delivery of substation transformers, filling of substation transformers, system transfers, pouring of foundations, and pulling of the conductor, which require continuous operation or must be conducted during off-peak hours per agency requirements. For any work that cannot occur during those timeframes, SDG&E will limit construction activities so that noise will not exceed an hourly average of 45 dB when measured at the border of the nearest parcel with an inhabited residence. If activities cannot be limited to meet this noise threshold, SDG&E will communicate the exception to San Diego County in advance of conducting the work that will exceed the threshold. If necessary, SDG&E will temporarily relocate residents occupying properties located less than 220 feet from construction activities on an as-needed basis for the duration of construction activities that would affect them.
ECO-NOI-2	SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project by mail at least one week prior to the start of construction activities. The announcement will state the construction start date, anticipated completion date, and hours of operation, and well as provide a telephone contact number for receiving questions or complaints during construction
ECO-NOI-3	Helicopter operation will be prohibited during construction of the 138 kV transmission line in the immediate vicinity of pole SP-52, located at approximate MP 7.3, and between pole SP-26, located at approximate MP 10.5, and the Rebuilt Boulevard Substation. If helicopter use cannot be avoided in these locations, SDG&E will temporarily relocate the impacted residents, on an as-needed basis, for the duration of the helicopter use that would impact them.

## East County Substation Project Mitigation Monitoring, Compliance, and Reporting Program

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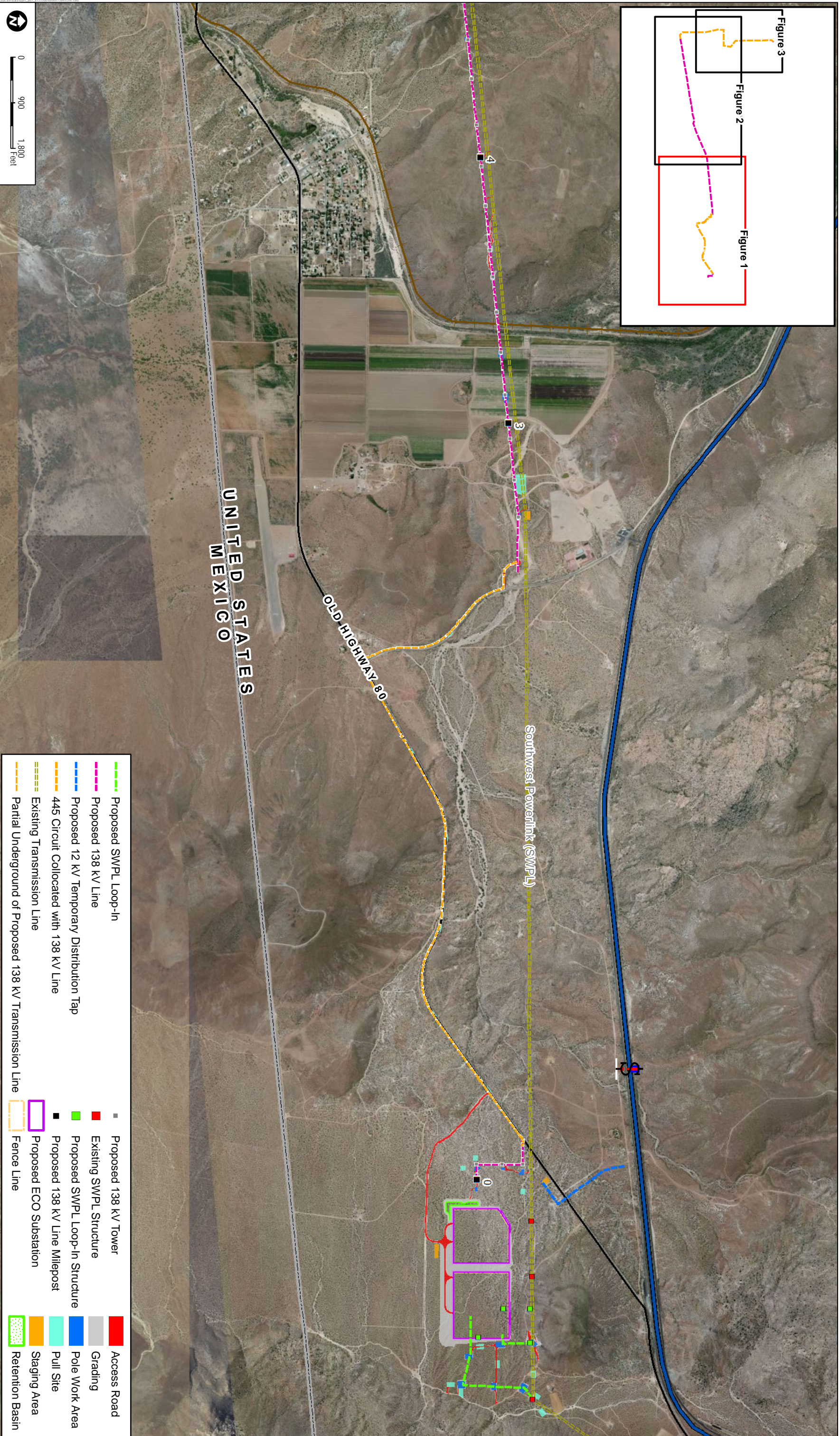
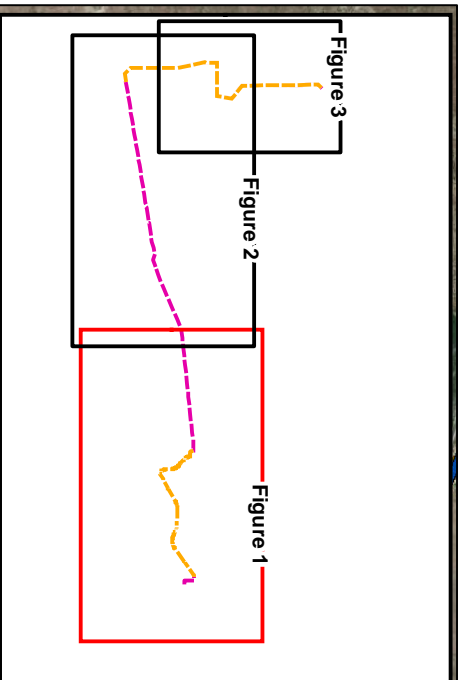
**Table 17  
Applicant Proposed Measures**







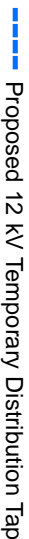





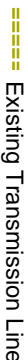





ECO-NOI-4	The use of explosives to assist with the excavation of rock will be prohibited within 600 feet of the boundary of any occupied parcels zoned for residential use and within 430 feet of the boundary of any occupied parcels zoned for agricultural use. If the use of explosives cannot be avoided in these locations, SDG&E will temporarily relocate the impacted occupants on an as-needed basis for the duration of the explosive use in their locations.
ECO-HAZ-2	A Phase II Environmental Site Assessment (ESA) shall be conducted on the existing Boulevard Substation parcel after the equipment has been removed in order to determine if there is any subsurface contamination. If required by the Phase II ESA investigation, remediation shall occur in accordance with all applicable federal, state, and local regulations.
ECO-HAZ-3	During the Boulevard Substation dismantling process, the existing equipment to be dismantled shall be tested in accordance with applicable federal, state, and local standards to determine appropriate recycle, reuse, or disposal alternatives for the equipment.
ECO-AIR-12	Routine inspections and preventative maintenance will be performed on all sulfur hexafluoride (SF <sub>6</sub> ) equipment according to the manufacturer's recommendations.
ECO-AIR-13	During final design, SDG&E will consider the feasibility of using rooftop photovoltaic panels on the control shelters to help support operating load at the ECO Substation. SDG&E will also investigate utilizing solar tubes for lighting in the control shelters. SDG&E's Project team will work closely with SDG&E's Sustainable Communities team to implement green building practices at the ECO Substation.
ECO-HYD-01	SDG&E will compensate for permanent impacts to any waters of the U.S. and state-only waters at a minimum ratio of one to one or as required by the USACE, CDFG, and RWQCB through their respective permitting processes.
ECO-HYD-02	If groundwater wells at ECO Substation are drilled within 0.5 mile of any local wells used for residential water supply, the water level in existing wells will be monitored and frequent communications will occur with the owner during construction to ensure that water availability is not adversely affected.

ATTACHMENT A  
*Project Map*







- |   |  |   |                                 |   |                 |
|---|--|---|---------------------------------|---|-----------------|
|  | Proposed SWPL Loop-In                                    |  | Proposed 138 kV Tower           |  | Access Road     |
|  | Proposed 138 kV Line                                     |  | Existing SWPL Structure         |  | Grading         |
|  | Proposed 12 kV Temporary Distribution Tap                |  | Proposed SWPL Loop-In Structure |  | Pole Work Area  |
|  | 445 Circuit Collocated with 138 kV Line                  |  | Proposed 138 kV Line Milepost   |  | Pull Site       |
|  | Existing Transmission Line                               |  | Proposed ECO Substation         |  | Staging Area    |
|  | Partial Underground of Proposed 138 kV Transmission Line |  | Fence Line                      |  | Retention Basin |

**DUDEK**

6168-01

SOURCE: SDGE 2009, SDGE 2011, SanGIS 2010, DigitalGlobe 2008

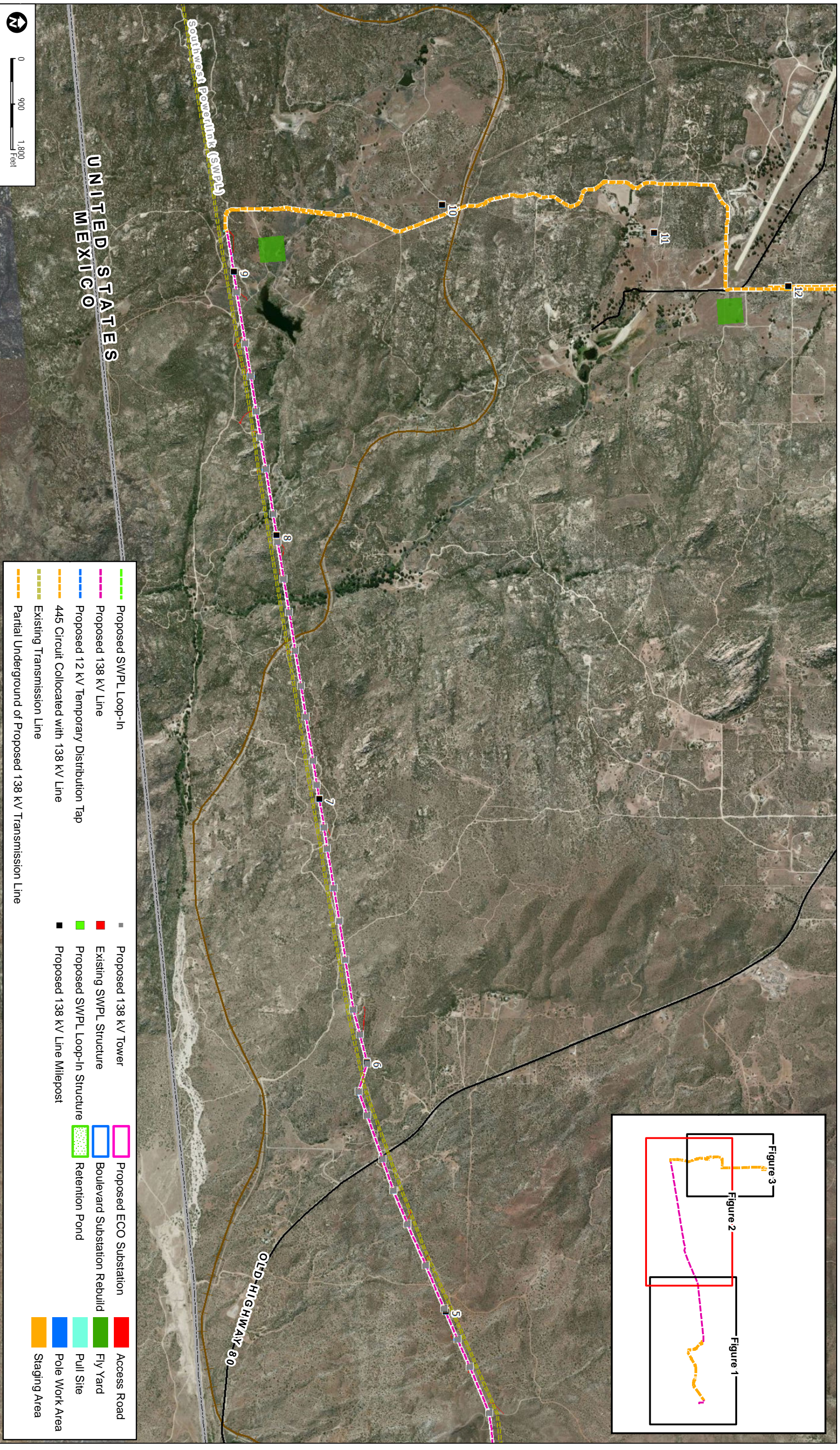
Mitigation Monitoring, Compliance, and Reporting Program

**FIGURE 1**  
**East County Substation Project**









**DUDEK**

6168-01

SOURCE: SDGE 2009, 2012; SanGIS 2010; DigitalGlobe 2008

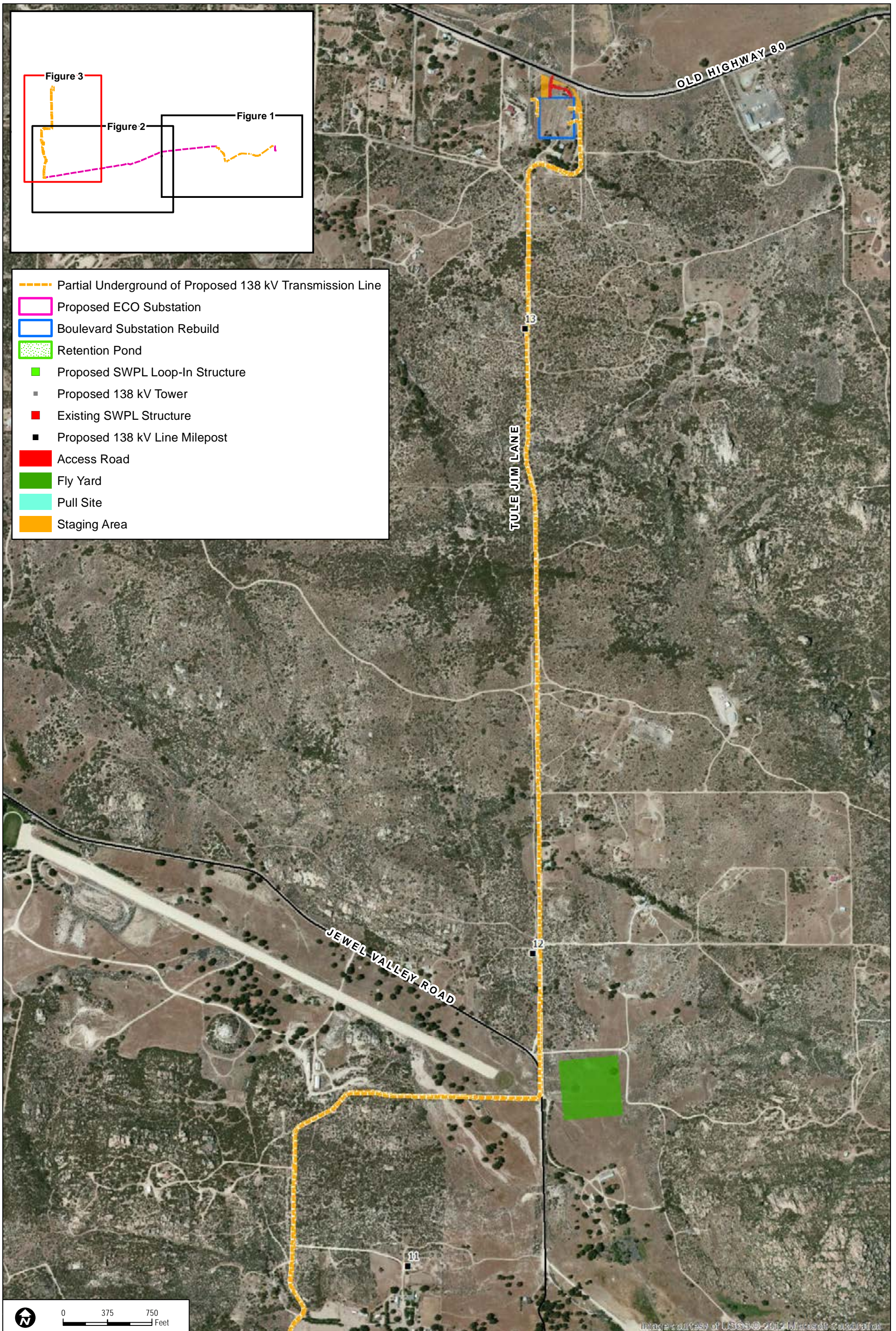
Mitigation Monitoring, Compliance, and Reporting Program

**FIGURE 2**  
**East County Substation Project**

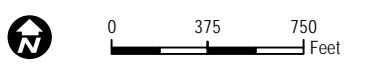








- - - Partial Underground of Proposed 138 kV Transmission Line
- Proposed ECO Substation
- Boulevard Substation Rebuild
- Retention Pond
- Proposed SWPL Loop-In Structure
- Proposed 138 kV Tower
- Existing SWPL Structure
- Proposed 138 kV Line Milepost
- Access Road
- Fly Yard
- Pull Site
- Staging Area



**DUDEK**

SOURCE: SDGE 2009, 2012; Iberdrola Renewables 2011

Image courtesy of USGS © 2012 Microsoft Corporation

**FIGURE 3**  
**East County Substation Project**

6168-01

Mitigation Monitoring, Compliance, and Reporting Program





ATTACHMENT B  
*Project Contact List*



**MITIGATION MONITORING PROGRAM**  
**East County Substation Project**

**PROJECT CONTACT LIST**  
**December 2012**

<b>Contact Name &amp; Title</b>	<b>Address</b>	<b>Phone</b>	<b>Cell</b>	<b>Email Address</b>
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**MITIGATION MONITORING PROGRAM**  
**East County Substation Project**

**PROJECT CONTACT LIST**  
**December 2012**

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<b>California Public Utilities Commission (CPUC)</b>				
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Earl Numinem Surface Compliance Tech	El Centro Field Office 1661 S. 4th St El Centro, California 92243	760.337.4423	760.540.1285	enuminem@blm.gov

**MITIGATION MONITORING PROGRAM  
East County Substation Project**

**PROJECT CONTACT LIST  
December 2012**

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<b>United States Fish and Wildlife Service</b>				
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Tom Dietsch	6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011	760.431.9440 x 214		Thomas_Dietsch@fws.gov
<b>Air Pollution Control District</b>				
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Jon Adams Chief of Compliance	10124 Old Grove Road San Diego, CA 92131	858.586.2653	N/A	Jon.Adams@sdcounty.ca.gov
<b>County of San Diego</b>				
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<b>California Department of Fish And Game</b>				
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ATTACHMENT C  
*Sample Site Inspection Form*



**MITIGATION MONITORING  
COMPLIANCE AND  
REPORTING PROGRAM**



**Site Inspection Form**

<b>Project:</b>	East County Substation Project (Application A.09-08-003)	<b>Date:</b>	
<b>Owner:</b>	San Diego Gas & Electric (SDG&E)	<b>Project &amp; Component:</b>	
<b>Project Manager:</b>	TBD	<b>Report Number:</b>	
<b>Lead Agency:</b>	California Public Utilities Commission	<b>Representative:</b>	Amy Baker

**SITE INSPECTION CHECKLIST**

<b>Air Quality</b>	<b>Yes</b>	<b>No</b>
Is dust control being implemented (i.e., access roads watered, haul trucks covered, streets cleaned on a regular basis)?		
Do vehicles or equipment appear to be idling unnecessarily?		
<b>Biology</b>	<b>Yes</b>	<b>No</b>
Are appropriate measures in place to protect sensitive habitat (i.e., flagging, signage, exclusion fencing, biological monitor)?		
Are all activities being conducted within the approved work limits?		
Have impacts occurred to adjacent habitat (sensitive or non-sensitive)?		
<b>Cultural and Paleontological Resources</b>	<b>Yes</b>	<b>No</b>
Are known cultural resources clearly marked for exclusion?		
Is a cultural monitor on site if grading is occurring near known cultural sites?		
Is a paleontological monitor on site if grading is occurring (see mitigation measure for specifications)?		
<b>Hazardous Materials</b>	<b>Yes</b>	<b>No</b>
Have all spills been cleaned-up in accordance with the project's SPCC?		
Are fuels, oils, lubricants, and other hazardous materials on-site labeled and stored in appropriate containers?		
<b>Water Quality</b>	<b>Yes</b>	<b>No</b>
Have temporary erosion and sediment control measures been installed?		
Are BMPs in good condition and functional?		
Is mud tracked onto roadways cleaned-up in accordance with the project's SWPPP?		

**DESCRIPTION OF OBSERVED ACTIVITY**

**MITIGATION MEASURES VERIFIED**

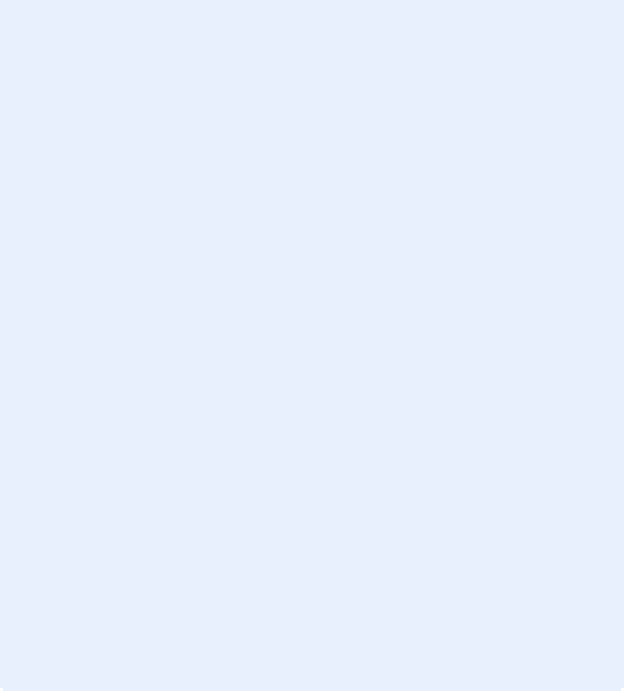
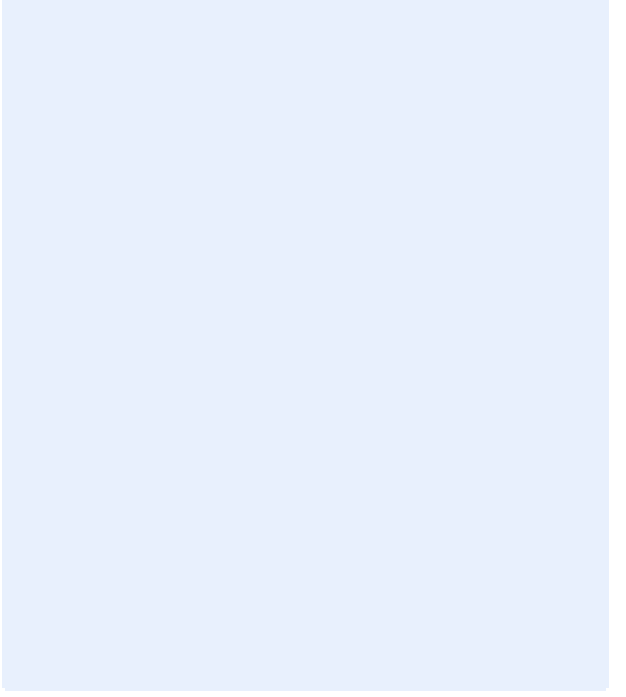
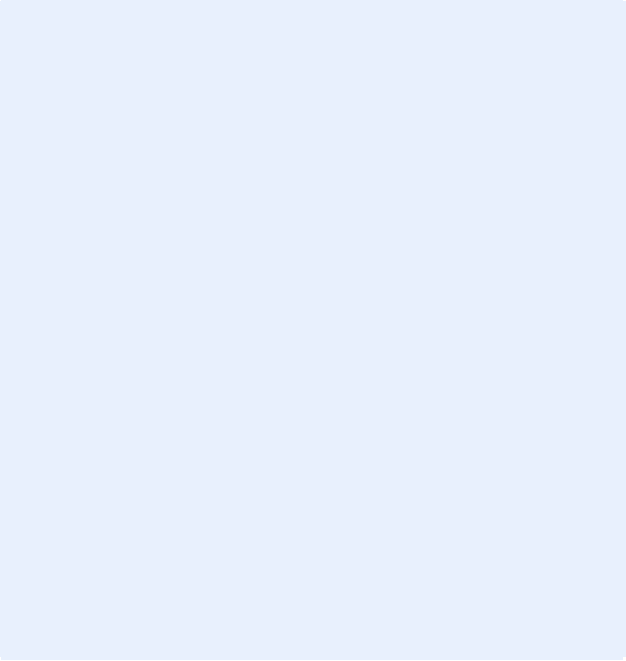
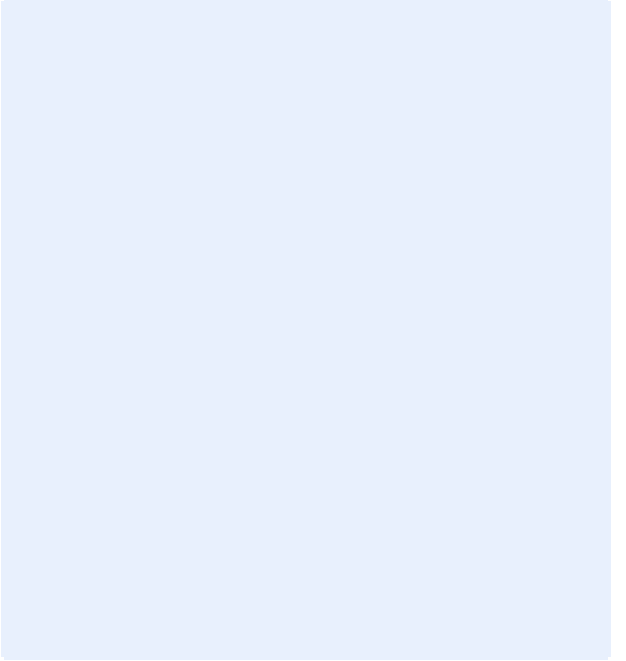
**COMPLIANCE**

- Project is in compliance with environmental mitigation measures
- Project Memorandum** (Mitigation Measure not fully implemented, however no eminent resource threat or damage)
- Non-Compliance Report** (Violates the project's environmental requirements and places environmental resources at risk or minor incidents are repeated, and show a trend toward placing resources at unnecessary risk)

**ISSUES REQUIRING FOLLOW-UP:**

Issue Requiring Follow-Up	SDG&E Notification	Corrective Actions Implemented by SDG&E

**Photos:**

**Completed by:**

Name: \_\_\_\_\_  
Firm: Dudek  
Date: \_\_\_\_\_

**Distribution:**

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ATTACHMENT D  
*List of Mitigation Measures by Time of  
Implementation*





**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Operation
	BIO-1a. Confine all construction and construction-related activities to the minimum necessary area as defined by the final engineering plans.	
BIO-1b. Conduct contractor training for all construction staff.		
	BIO-1c. Conduct biological construction monitoring.	
BIO-1d. Restore all temporary construction areas pursuant to a Habitat Restoration Plan.	BIO-1d. Restore all temporary construction areas pursuant to a Habitat Restoration Plan.	
BIO-1e. Provide habitat compensation or restoration for permanent impacts to native vegetation communities.		
	BIO-1f. Implement fire prevention best management practices during construction and operation activities.	BIO-1f. Implement fire prevention best management practices during construction and operation activities.
BIO-1g. Prepare and implement a Stormwater Pollution Prevention Plan.	BIO-1g. Prepare and implement a Stormwater Pollution Prevention Plan.	
BIO-2a. Limit temporary and permanent impacts to jurisdictional features to the minimum necessary as defined by the final engineering plans.	BIO-2a. Limit temporary and permanent impacts to jurisdictional features to the minimum necessary as defined by the final engineering plans.	
BIO-2b. Implement habitat creation, enhancement, preservation, and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands.	BIO-2b. Implement habitat creation, enhancement, preservation, and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands.	
BIO-2c. Where drainage crossings are unavoidable, construct access roads at right angles to drainages.	BIO-2c. Where drainage crossings are unavoidable, construct access roads at right angles to drainages.	
BIO-3a. Prepare and implement a Noxious Weeds and Invasive Species Control Plan.	BIO-3a. Prepare and implement a Noxious Weeds and Invasive Species Control Plan.	BIO-3a. Prepare and implement a Noxious Weeds and Invasive Species Control Plan.
BIO-4a. Prepare and implement a Dust Control Plan.	BIO-4a. Prepare and implement a Dust Control Plan.	

**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Operation
BIO-5a. Install fencing or flagging around identified special-status plant species populations in the construction areas		
BIO-5b. Implement special-status plant species compensation.	BIO-5b. Implement special-status plant species compensation.	
	BIO-7a. Cover and/or provide escape routes for wildlife from excavated areas and monitor these areas daily.	
	BIO-7b. Enforce speed limits in and around all construction areas.	
	BIO-7c. Minimize night construction lighting adjacent to native habitats.	
	BIO-7d. Prohibit littering and remove trash from construction areas daily	
	BIO-7e. Prohibit the harm, harassment, collection of, or feeding of wildlife.	
BIO-7f. Obtain and implement the terms of agency permit(s) with jurisdiction federal or state listed species.	BIO-7f. Obtain and implement the terms of agency permit(s) with jurisdiction federal or state listed species.	
BIO-7g. Conduct protocol surveys for Quino checkerspot butterfly within 1 year prior to project construction activities in occupied habitat.		
BIO-7h. Provide compensation for temporary and permanent impacts to Quino checkerspot butterfly habitat through conservation and/or restoration.		
BIO-7i. Final design of transmission towers and access roads through Quino checkerspot butterfly critical habitat shall maximally avoid host plants for Quino checkerspot butterfly.		

**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Operation
BIO-7j. Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds.	BIO-7j. Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds.	
BIO-10a. Design all transmission towers and lines to conform with Avian Power Line Interaction Committee standards.		
BIO-10b. Develop and implement project-specific Avian Protection Plans.	BIO-10b. Develop and implement project-specific Avian Protection Plans.	BIO-10b. Develop and implement project-specific Avian Protection Plans.
		BIO-11a. Conduct maintenance activities resulting in vegetation disturbance outside of the bird nesting season or conduct pre-construction nesting bird surveys.
	ECO-BIO-7. Biological monitor will be present during all ground-disturbing and vegetation removal activities	
	ECO-BIO-8. Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations.	
	ECO-BIO-09. Survey personnel will keep survey vehicles on existing roads.	
	ECO-BIO-10. All Project vehicle movement will be restricted to existing access roads and access roads constructed as a part of the Project and determined and marked by SDG&E in advance of construction	
ECO-BIO-20. Retention Basin Design		
VIS-1a. Reduce impacts at scenic highway and trail crossings.		
VIS-1b. Reduce impacts at scenic view areas.		

**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Operation
	VIS-3a. Reduce visibility of construction activities and equipment.	
VIS-3b. Reduce construction night-lighting impacts.	VIS-3b. Reduce construction night-lighting impacts.	
	VIS-3c. Reduce construction impacts to natural features.	
VIS-3d. Reduce in-line views of land scars.		
VIS-3e. Reduce visual contrast from unnatural vegetation lines.		
VIS-3f. Minimize vegetation removal.		
VIS-3g. Reduce visual contrast associated with substation and ancillary facilities.		
VIS-3h. Screen substations and ancillary facilities.		
VIS-3i. Reduce potential visual contrast of transmission structures.		
VIS-3j. Reduce potential transmission conductor visibility and visual contrast.		
VIS-3k. Reduce potential visual contrast from transmission structure spacing.		
VIS-3l. Reduce potential view blockage and visual contrasts of structures.		
VIS-3m: Reduce visual impacts resulting from native tree removal.		
VIS-4a. Reduce long-term night-lighting impacts from substations and ancillary facilities		
ECO-AES-1. All disturbed terrain at the ECO Substation site will be restored through recontouring and revegetation in accordance with the Landscaping Plan.		

**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Operation
ECO-AES-2. All disturbed terrain at the Boulevard Substation site will be restored through recontouring, revegetation, and landscaping in accordance with the Landscaping Plan.		
ECO-AES-3. In order to reduce the Project’s potential visibility from Old Highway 80, the underground portion of the new 138 kV transmission line will be extended an additional distance of approximately 600 feet to the south and the steel cable riser pole will be relocated to replace structure SP-2.		
LU-1a. Prepare Construction Notification Plan.	LU-1a. Prepare Construction Notification Plan.	
LU-1b. Notify property owners and provide access.	LU-1b. Notify property owners and provide access.	
LU-2. Revise project elements to minimize land use conflicts.		
WR-1 Provide notice for access restrictions or anticipated closures to wilderness and recreation areas.		
CUL-1A, Develop and Implement a Historic Properties Treatment Plan-Cultural Resources Management Plan:	CUL-1A, Develop and Implement a Historic Properties Treatment Plan-Cultural Resources Management Plan:	
CUL-1B, Avoid and Protect Significant Resources.	CUL-1B, Avoid and Protect Significant Resources.	
CUL-1C, Training for Contractor		
CUL-1D, Construction Monitoring	CUL-1D, Construction Monitoring	
	CUL-1E, Discovery of Unknown Resources	
CUL-1F, Control Unauthorized Access	CUL-1F, Control Unauthorized Access	
CUL-1G, Funding of Law Enforcement Patrols		
CUL-1H, Continue Consultation with Native Americans and Other Traditional Groups	CUL-1H, Continue Consultation with Native Americans and Other Traditional Groups	
CUL-2, Human Remains	CUL-2, Human Remains	CUL-2, Human Remains

**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Operation
ECO-CUL-02. At least 120 days prior to construction, a cultural/historical resource consultant will be retained by SDG&E to complete an analysis and assessment of the potential to disturb resources that were identified during the initial studies from major ground-disturbing activities.		
	ECO-CUL-05, 06 and 11	ECO-CUL-07
PALEO-1A, Inventory and evaluate paleontological resources in the Final APE:		
PALEO-1B, Develop Paleontological Monitoring and Treatment Plan		
	PALEO-1C, Monitor Construction for Paleontology:	
	PALEO-1D, Conduct Paleontological Data Recovery:	
PALEO-1E, Train Construction Personnel:		
NOI-1 Blasting Plan	NOI-1 Blasting Plan	
NOI-2 Conductor configuration selection to address noise impacts		
	ECO-NOI-1. Construction activities will occur during the times established by the local ordinances (generally between 7 a.m. and 7 p.m. Monday through Saturday).	
	ECO-NOI-2. SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project	
	ECO-NOI-3: Helicopter operation will be prohibited during construction of the 138 kV transmission line in the immediate vicinity of pole SP-52, located at approximate MP 7.3, and between pole SP-26, located at approximate MP 10.5, and the Rebuilt Boulevard Substation.	

**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Operation
	ECO-NOI-4: The use of explosives to assist with the excavation of rock will be prohibited within 600 feet of the boundary of any occupied parcels zoned for residential use and within 430 feet of the boundary of any occupied parcels zoned for agricultural use.	
TRA-1. Prepare and implement a Traffic Control Plan.	TRA-1. Prepare and implement a Traffic Control Plan.	
	TRA-2. Repair roadways damaged by construction activities.	
TRA-3. Consult with and inform the FAA, DOD, and U.S. Customs and Border Protection.		
HAZ-1a. Hazardous Materials Management Plan.	HAZ-1a. Hazardous Materials Management Plan.	
HAZ-1b. Health and Safety Program.	HAZ-1b. Health and Safety Program.	
HAZ-1c. Waste Management Plan.	HAZ-1c. Waste Management Plan.	
HAZ-1d. Testing for environmental hazards associated with demolition.	HAZ-1d. Testing for environmental hazards associated with demolition.	
ECO-HAZ-02. Phase II Environmental Site Assessment.	ECO-HAZ-2. Phase II Environmental Site Assessment.	
	ECO-HAZ-03. Boulevard Substation Dismantling.	
HAZ-2a. Test for pesticides/herbicides on currently or historically farmed land.	HAZ-2a. Test for pesticides/herbicides on currently or historically farmed land.	
	HAZ-2b. Contingency plan for encountering contaminated soils.	
	HAZ-3. Soil testing for lead contamination	
HAZ-4a. Safety Assessment.		
HAZ-4b. Blasting Plan.		
		HAZ-5a. Spill Prevention Control and Countermeasure Plan.
		HAZ-5b. Hazardous Materials Business Plan

**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Operation
	PS-1a. Minimize electromagnetic and public safety communications.	PS-1a. Minimize electromagnetic and public safety communications.
PS-1b. Limit conductor surface potential.		
		PS-1c. Document complaints of broadcast interference.
PS-2. Determine proper grounding procedures and implement appropriate grounding measures.	PS-2. Determine proper grounding procedures and implement appropriate grounding measures.	PS-2. Determine proper grounding procedures and implement appropriate grounding measures.
		ECO-AIR-12. Routine inspections and preventative maintenance will be performed on all sulfur hexafluoride (SF6) equipment according to the manufacturer's recommendations.
ECO-AIR-13. SDG&E will consider the feasibility of using rooftop photovoltaic panels on the control shelters to help support operating load at the ECO Substation.		
	AQ-1. Reduce fugitive dust and other criteria pollutant emissions during construction activities	
	AQ-2. All off-road diesel engines with a rated output of greater than 50 horsepower will, at a minimum, meet the Tier 2 California Emissions Standards for Off-Road Compression Ignition Engines.	
ECO-HYD-01. SDG&E will compensate for permanent impacts to any waters of the U.S. and state-only waters at a minimum ratio of one to one or as required by the USACE, CDFG, and RWQCB through their respective permitting processes.		
HYD-1: A Stormwater Pollution Prevention Plan shall be prepared to reduce soil erosion during construction.	HYD-1: A Stormwater Pollution Prevention Plan shall be prepared to reduce soil erosion during construction.	



**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Operation
HYD-2: Avoidance and preventative measures to protect local groundwater during excavation.	HYD-2: Avoidance and preventative measures to protect local groundwater during excavation.	
HYD-3: Identification of sufficient water supply		
HYD-4: Preparation of a Stormwater Management Plan.	HYD-4: Preparation of a Stormwater Management Plan.	
	HYD-5: Implementation of creek-crossing procedures.	
HYD-6: Horizontal Directional Drill Contingency Plan.		
HYD-7: Bury power line below 100-year scour depth.		
	ECO-HYD-02. If groundwater wells at ECO Substation are drilled within 0.5 mile of any local wells used for residential water supply, the water level in existing wells will be monitored and frequent communications will occur with the owner during construction to ensure that water availability is not adversely affected.	
GEO-1: Erosion Control and Sediment Transport Control Plan.	GEO-1: Erosion Control and Sediment Transport Control Plan.	
GEO-2: Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.		
GEO-3: Conduct geotechnical investigations.	GEO-3: Conduct geotechnical investigations.	
		GEO-4: Facilities inspections conducted following major seismic event.
PSU-1a. Notification of utility service interruption.	PSU-1a. Notification of utility service interruption.	
PSU-1b. Protect underground utilities.		
PSU-1c. Coordinate with utility providers.		
FF-1: Develop and implement a Construction Fire Prevention/Protection Plan.	FF-1: Develop and implement a Construction Fire Prevention/Protection Plan.	FF-1: Develop and implement a Construction Fire Prevention/Protection Plan.

**MMCRP Attachment D**  
**East County Substation Project – Sorted by Time of Implementation**

<b>Pre-Construction Measures</b>	<b>During Construction</b>	<b>Operation</b>
FF-2: Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009) to Create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan.	FF-2: Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009) to Create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan.	FF-2: Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009) to Create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan.
FF-3: Provide Assistance to San Diego Rural Fire Protection District (SDRFPD) and San Diego County Fire Authority (SDCFA).		
FF-4: Customized Fire Protection Plan for Project.	FF-4: Customized Fire Protection Plan for Project.	FF-4: Customized Fire Protection Plan for Project.
FF-6: Funding for FireSafe Council.		
FF-7: Preparation of Disturbed Area Revegetation Plan.		

**ATTACHMENT E**  
***CPUC Minor Project Refinement Request Form***





## EAST COUNTY SUBSTATION PROJECT MINOR REFINEMENT REQUEST FORM

<b>Date Submitted:</b>		<b>Request #:</b>	
<b>Date Approval Required:</b>		<b>Landowner:</b>	
<b>APN:</b>			
<b>Refinement from (check all that apply):</b>			
<input type="checkbox"/> Mitigation Measure	<input type="checkbox"/> APM	<input type="checkbox"/> Project Description	<input type="checkbox"/> Drawing
<input type="checkbox"/> Other			
<b>Identify source (mitigation measure, project description, etc.):</b>			
<b>Attachments (check all that apply):</b>			
<input type="checkbox"/> Refinement Screening Form (see Attachment A)	<input type="checkbox"/> Photos	<input type="checkbox"/> Maps	<input type="checkbox"/> Other
<p><b>Under Order 3 of the Decision Granting SDG&amp;E Permit to Construct the East County Substation Project (D.12-04-022), the CPUC may approve minor project refinements under certain circumstances. In accordance with Order 3 of the Decision, respond “yes” or “no” to the following questions (a) through (d).</b></p>			
<b>(a) Is the proposed refinement outside the geographic boundary of the EIR/EIS study area?</b>			
<b>(b) Will the proposed refinement result in a new significant impact or a substantial increase in the severity of a previously identified significant impact based on the criteria used in the EIR/EIS?</b>			
<b>(c) Does the proposed refinement conflict with any mitigation measure or applicable law or policy?</b>			
<b>(d) Does the proposed refinement trigger an additional permit requirement?</b>			
<b>Describe refinement being requested (attach drawings and photos as needed):</b>			

<b>Provide need for refinement (attach drawings and photos as needed):</b>					
<b>Date refinement is expected to be implemented:</b>					
<b>SDG&amp;E Approvals</b>					
Title	Name	Approval Initials	Date	Conditions (see attached)	
Project Manager				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Environmental Manager				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Construction Manager				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Water Quality Specialist				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Lead Biological Monitor				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Cultural Resource Specialist				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Land Advisor				<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>Landowner Approval (if required)</b>					
Landowner Name	Signature or Other Consent (see attached)			Date	
<b>Resource Agency Coordination</b>					
Resource Agency	Name	Action Required	Date	Documentation (see attached if yes)	
				<input type="checkbox"/> Yes	<input type="checkbox"/> No
				<input type="checkbox"/> Yes	<input type="checkbox"/> No
				<input type="checkbox"/> Yes	<input type="checkbox"/> No

**ATTACHMENT A: REFINEMENT REQUEST SCREENING FORM**





# MINOR PROJECT REFINEMENT REQUEST SCREENING FORM

## RESOURCE EVALUATION

The proposed minor project refinement was evaluated to verify that the minor project refinement would not result in a new significant impact or a substantial increase in the severity of a previously identified significant impact based on the criteria used in the EIR/EIS. The following table provides a brief summary of the potential impact for each resource area analyzed in the EIR/EIS.

<b>EIR/EIS Section</b>	<b>Summary of Potential Impacts</b>
Aesthetics	
Agriculture and Forestry Resources	
Air Quality and Greenhouse Gas Emissions	
Biological Resources	
Cultural Resources	
Geology, Soils, and Seismicity	
Hazards and Hazardous Materials	
Hydrology and Water Quality	
Land Use and Planning	
Mineral Resources	
Noise	
Population and Housing	
Public Services	

<b>EIR/EIS Section</b>	<b>Summary of Potential Impacts</b>
Recreation	
Transportation and Traffic	
Utilities and Service Systems	

**ATTACHMENT B: SITE MAP**



**ATTACHMENT C: REPRESENTATIVE PHOTOGRAPHS**





**Photograph 1:**



**Photograph 2:**

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ATTACHMENT F  
*BLM Variance Request Form*





## Variance Request Form

Variance: \_\_\_\_\_  
 Request No.: \_\_\_\_\_  
 Date Submit: \_\_\_\_\_  
 Date Approval Needed: \_\_\_\_\_  
 Date Agency Received: \_\_\_\_\_  
 Agency Approval Reference No.: \_\_\_\_\_

Request Prepared by:  
 Spread/ Location  
 (Milepost):  
 Alignment Sheet/Sta.  
 No.:

Net acreage affected:

Tract No:

Landowner:

In or within 50 feet of a wetland:     Yes     No  
 Within 50 feet of a water body:        Yes     No

Current Land Use/ Vegetative Cover:

Nearby Features (Water body, T&E Habitat, Wetland, Noxious Weed)

Area, Residence, Cultural Resource Site (distance, etc.):

Variance Level:    Level 1     Level 2     Level 3                      **(To Be Assigned by Designated Representative)**

Variance From:    Permit     Plan/Procedure     Specification     Drawing     Mitigation Measure     Other:

**Detailed Description of Variance:**                      Attachments?    Yes     No                       Photos?    Yes     No

**Variance Justification:**

**For (Company Name) Use Only**

Additional Surveys Required	Surveyed Corridor Description	Additional Surveys Completed
Cultural Survey <input type="checkbox"/> Yes <input type="checkbox"/> No T&E Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Reporting Document Survey:		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Sign-off (as appropriate)	Name (print)	Approval Signature
Contractor Sup't. or Env. Coordinator Lead Environmental Inspector Spread Supervisor Environmental Field Manager ROW Agent		Conditions (See Attached) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

**For BLM Project Manager or Compliance Contact Use Only**

Variance Approved:                                       Variance Denied:                                       Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_

**For Compliance Manager and Monitor Use Only**

Variance Approved: \_\_\_\_\_                                      Variance Denied \_\_\_\_\_                                      Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Stipulations \_\_\_\_\_

Spread:

OPPC Variance Request No.:

**VARIANCE CONDITIONS**

Name:

Title:

Organization:

Conditions:

Name:

Title:

Organization:

Conditions:

Name:

Title:

Organization:

Conditions:

# ATTACHMENT G

## *Mitigation Measures by Construction Component*



# MITIGATION MONITORING, COMPLIANCE AND REPORTING PROGRAM

## East County Substation Project Attachment G – Mitigation Measures Applicable by Construction Component

Construction Components	ECO Substation	SWPL Loop In	138 kV Transmission Line	Boulevard Substation Rebuild
<b>Mitigation Measures &amp; APMs</b>				
BIO-1a. Confine all construction and construction-related activities to the minimum necessary area as defined by the final engineering plans.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-1b. Conduct contractor training for all construction staff.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-1c. Conduct biological construction monitoring.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-1d. Restore all temporary construction areas pursuant to a Habitat Restoration Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-1e. Provide habitat compensation or restoration for permanent impacts to native vegetation communities.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-1f. Implement fire prevention best management practices during construction and operation activities.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-1g. Prepare and implement a Stormwater Pollution Prevention Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-2a. Limit temporary and permanent impacts to jurisdictional features to the minimum necessary as defined by the final engineering plans.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-2b. Implement habitat creation, enhancement, preservation, and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-2c. Where drainage crossings are unavoidable, construct access roads at right angles to drainages.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-3a. Prepare and implement a Noxious Weeds and Invasive Species Control Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-4a. Prepare and implement a Dust Control Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-5a. Install fencing or flagging around identified special-status plant species populations in the construction areas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-5b. Implement special-status plant species compensation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-7a. Cover and/or provide escape routes for wildlife from excavated areas and monitor these areas daily.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment G – Mitigation Measures Applicable by Construction Component

Construction Components	ECO Substation	SWPL Loop In	138 kV Transmission Line	Boulevard Substation Rebuild
<b>Mitigation Measures &amp; APMs</b>				
BIO-7b. Enforce speed limits in and around all construction areas.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-7c. Minimize night construction lighting adjacent to native habitats.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-7d. Prohibit littering and remove trash from construction areas daily	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-7e. Prohibit the harm, harassment, collection of, or feeding of wildlife.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-7f. Obtain and implement the terms of agency permit(s) with jurisdiction federal or state listed species.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-7g. Conduct protocol surveys for Quino checkerspot butterfly within 1 year prior to project construction activities in occupied habitat.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BIO-7h. Provide compensation for temporary and permanent impacts to Quino checkerspot butterfly habitat through conservation and/or restoration.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BIO-7i. Final design of transmission towers and access roads through Quino checkerspot butterfly critical habitat shall maximally avoid host plants for Quino checkerspot butterfly.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BIO-7j. Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-10a. Design all transmission towers and lines to conform with Avian Power Line Interaction Committee standards.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BIO-10b. Develop and implement project-specific Avian Protection Plans.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BIO-11a. Conduct maintenance activities resulting in vegetation disturbance outside of the bird nesting season or conduct pre-construction nesting bird surveys.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-BIO-07 Biological Monitor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-BIO-08 Environmental Training	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-BIO-09 Surveying Requirements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-BIO-10 Restrict Vehicle Movement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-BIO-20 Retention Basins	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-1a. Reduce impacts at scenic highway and trail crossings.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VIS-1b. Reduce impacts at scenic view areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VIS-3a. Reduce visibility of construction activities and equipment.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



Attachment G – Mitigation Measures Applicable by Construction Component

Construction Components	ECO Substation	SWPL Loop In	138 kV Transmission Line	Boulevard Substation Rebuild
<b>Mitigation Measures &amp; APMs</b>				
VIS-3b. Reduce construction night-lighting impacts.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-3c. Reduce construction impacts to natural features.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-3d. Reduce in-line views of land scars.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-3e. Reduce visual contrast from unnatural vegetation lines.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-3f. Minimize vegetation removal.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-3g. Reduce visual contrast associated with substation and ancillary facilities.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-3h. Screen substations and ancillary facilities.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-3i. Reduce potential visual contrast of transmission structures.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-3j. Reduce potential transmission conductor visibility and visual contrast.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-3k. Reduce potential visual contrast from transmission structure spacing.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VIS-3l. Reduce potential view blockage and visual contrasts of structures.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ECO-AES-1 Restore per the ECO Substation Landscape Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ECO-AES-2 Restore per the Boulevard Substation Landscape Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-AES-3 Underground 138 kV extension	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VIS-3m: Reduce visual impacts resulting from native tree removal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VIS-4a. Reduce long-term night-lighting impacts from substations and ancillary facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LU-1a. Prepare Construction Notification Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LU-1b. Notify property owners and provide access.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LU-2. Revise project elements to minimize land use conflicts.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WR-1 Provide notice for access restrictions or anticipated closures to wilderness and recreation areas.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CUL-1A, Develop and Implement a Historic Properties Treatment Plan-Cultural Resources Management Plan:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CUL-1B, Avoid and Protect Significant Resources.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CUL-1C, Training for Contractor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment G – Mitigation Measures Applicable by Construction Component

Construction Components	ECO Substation	SWPL Loop In	138 kV Transmission Line	Boulevard Substation Rebuild
<b>Mitigation Measures &amp; APMs</b>				
CUL-1D, Construction Monitoring	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CUL-1E, Discovery of Unknown Resources	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CUL-1F, Control Unauthorized Access	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CUL-1G, Funding of Law Enforcement Patrols	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CUL-1H, Continue Consultation with Native Americans and Other Traditional Groups	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CUL-2, Human Remains	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-CUL-02, 05, 06, 07, and 11,.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PALEO-1A, Inventory and evaluate paleontological resources in the Final APE:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PALEO-1B, Develop Paleontological Monitoring and Treatment Plan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PALEO-1C, Monitor Construction for Paleontology:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PALEO-1D, Conduct Paleontological Data Recovery:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PALEO-1E, Train Construction Personnel:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NOI-1 Blasting Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NOI-2 Conductor configuration selection to address noise impacts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ECO-NOI-1, 2, 3, 4 and 5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TRA-1. Prepare and implement a Traffic Control Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TRA-2. Repair roadways damaged by construction activities.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TRA-3. Consult with and inform the FAA, DOD, and U.S. Customs and Border Protection.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HAZ-1a. Hazardous Materials Management Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HAZ-1b. Health and Safety Program.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HAZ-1c. Waste Management Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HAZ-1d. Testing for environmental hazards associated with demolition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-HAZ-2. Phase II Environmental Site Assessment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-HAZ-3. Boulevard Substation Dismantling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment G – Mitigation Measures Applicable by Construction Component

Construction Components	ECO Substation	SWPL Loop In	138 kV Transmission Line	Boulevard Substation Rebuild
<b>Mitigation Measures &amp; APMs</b>				
HAZ-2a. Test for pesticides/herbicides on currently or historically farmed land.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HAZ-2b. Contingency plan for encountering contaminated soils.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HAZ-3. Soil testing for lead contamination	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HAZ-4a. Safety Assessment.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HAZ-4b. Blasting Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HAZ-5a. Spill Prevention Control and Countermeasure Plan.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HAZ-5b. Hazardous Materials Business Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-HAZ-2 Phase II ESA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-HAZ-3 Boulevard Dismantling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PS-1a. Minimize electromagnetic and public safety communications.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PS-1b. Limit conductor surface potential.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PS-1c. Document complaints of broadcast interference.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PS-2. Determine proper grounding procedures and implement appropriate grounding measures.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AQ-1. Emissions control during construction activities.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AQ-2. Construction fleet emissions control.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-AIR-12. Sulfur hexafluoride (SF6) equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-AIR-13. Rooftop photovoltaic panels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HYD-1: A Stormwater Pollution Prevention Plan shall be prepared to reduce soil erosion during construction.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HYD-2: Avoidance and preventative measures to protect local groundwater during excavation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HYD-3: Identification of sufficient water supply	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HYD-4: Preparation of a Stormwater Management Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HYD-5: Implementation of creek-crossing procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HYD-6: Horizontal Directional Drill Contingency Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Attachment G – Mitigation Measures Applicable by Construction Component

Construction Components	ECO Substation	SWPL Loop In	138 kV Transmission Line	Boulevard Substation Rebuild
<b>Mitigation Measures &amp; APMs</b>				
HYD-7: Bury power line below 100-year scour depth.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ECO-HYD-01: Jurisdictional Waters Mitigation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ECO-HYD-02: Groundwater well monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GEO-1: Erosion Control and Sediment Transport Control Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GEO-2: Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GEO-3: Conduct geotechnical investigations.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GEO-4: Facilities inspections conducted following major seismic event.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PSU-1a. Notification of utility service interruption.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PSU-1b. Protect underground utilities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PSU-1c. Coordinate with utility providers.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FF-1: Develop and implement a Construction Fire Prevention/Protection Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FF-2: Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009) to Create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FF-3: Provide Assistance to San Diego Rural Fire Protection District (SDRFPD) and San Diego County Fire Authority (SDCFA).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FF-4: Customized Fire Protection Plan for Project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FF-6: Funding for FireSafe Council.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FF-7: Preparation of Disturbed Area Revegetation Plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

ATTACHMENT H  
*BLM Record of Decision*



**RECORD OF DECISION**

**East County Substation Project 138-kilovolt  
Transmission Line**

Cooperating Agency:  
U.S. Army Corps of Engineers

Environmental Impact Statement 20110347  
Case File Number: CACA-51625

**ECO Substation Project  
Decision to Grant Right-of-Way**

United States Department of the Interior, Bureau of Land Management  
El Centro Field Office  
1661 S. 4th Street  
El Centro, CA 92243

August 2012



Lead Agency:  
United States Department of the Interior  
Bureau of Land Management

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## List of Acronyms and Abbreviations

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Acronym/Abbreviation	Term
ACOE	U.S. Army Corps of Engineers
AO	Authorized Officer
BLM	Bureau of Land Management
BO	Biological Opinion
BMP	best management practice
CAA	Clean Air Act
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CPUC	California Public Utilities Commission
CWA	Clean Water Act
DOI	Department of the Interior
ECO	East County Substation
EPA	Environmental Protection Agency
EPAct	Energy Policy Act of 2005
ESA	Endangered Species Act
ESJ Gen-Tie	Energia Sierra Juarez generator tie-line
FEIS/FEIR	Final Environmental Impact Statement/Environmental Impact Report
FLPMA	Federal Land Policy and Management Act
FR	Federal Register
I-8	Interstate 8
kV	kilovolt
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MMCRP	Mitigation Monitoring, Compliance and Reporting Program
MW	megawatt
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NTP	Notice to Proceed

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## List of Acronyms and Abbreviations

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<b>Acronym/Abbreviation</b>	<b>Term</b>
PEA	Proponents Environmental Assessment
POD	Plan of Development
RMP	Resource Management Plan
ROD	Record of Decision
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SDG&E	San Diego Gas & Electric
SPCC	Spill Prevention Control and Countermeasure
SWPL	Southwest Powerlink
SWRCB	State Water Resources Control Board
U.S.C.	United States Code
USFWS	United States Fish and Wildlife Service



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## Executive Summary

This document constitutes the Record of Decision (ROD) of the United States Department of the Interior (DOI) Bureau of Land Management (BLM) for the East County (ECO) Substation Project 138-kilovolt (kV) Transmission Line in southeastern San Diego County (see Figure 1 of this ROD). The total length of the 138 kV transmission line is 13.9 miles, 0.8 of which is on public lands administered by the BLM, the remainder is located on private lands. In addition to the 138 kV transmission line, the ECO Substation Project includes components such as the ECO Substation, Southwest Powerlink (SWPL) Loop-In, and the Boulevard Substation rebuild, which are located on private lands subject to the permitting authority of the California Public Utilities Commission (CPUC). Through this ROD, the BLM makes no decision regarding those portions of the ECO Substation Project or other projects analyzed in the Final Environmental Impact Statement/Environmental Impact Report (FEIS/FEIR)<sup>1</sup> that are not located on BLM-managed lands. These other lands and project components were included in the Proposed Action and alternatives addressed in the FEIS/FEIR.

A Notice of Availability (NOA) of the FEIS/FEIR was published by the United States Environmental Protection Agency (EPA) in the Federal Register (FR) on October 14, 2011 (76 FR 63922).

This ROD addresses the decision for a right-of-way (ROW) application under Title V of the Federal Land Policy and Management Act (FLPMA) of 1976. It is the BLM's decision to grant a ROW to the applicant, San Diego Gas & Electric (SDG&E), that will allow the construction, operation, maintenance, and termination of a 0.8-mile underground segment of the ECO Substation Project's 138 kV transmission line located on 10.44 acres of public lands. This entire 138 kV line will transmit electricity between the proposed SDG&E ECO Substation (located approximately 4 miles east of the community of Jacumba) to the proposed SDG&E rebuilt Boulevard Substation. The Selected Alternative in this ROD was analyzed in the FEIS/FEIR as the BLM's Preferred Alternative. BLM's Preferred Alternative for the ECO Substation Project 138 kV Transmission Line is the ECO Partial Underground 138 kV Transmission Route Alternative, which would underground the segment of the proposed 138 kV transmission line located on public lands. Under the Selected Alternative, the overall length of the proposed 138 kV transmission line consists of approximately 0.8 mile on public land. Part of the ECO Partial Underground 138 kV Transmission Route Alternative (see Figure 1 of this ROD), including the entirety of the overhead portion and an underground portion located along the western extent of the transmission line alignment, is to be located on private lands that are not under the authority of the BLM. It is discussed here briefly to provide background information on the scope and range of alternatives analyzed. The FEIS/FEIR Selected Alternative proposes routing the 138 kV transmission underground along Old Highway 80 and Carrizo Gorge Road (approximately 2.7 miles on both BLM-managed and private lands) and would then connect to the overhead 138 kV

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<sup>1</sup> As analyzed in the FEIS/FEIR, the ECO Substation, Tule Wind, and ESJ Gen-Tie Projects were considered components of the Proposed PROJECT for purposes of the California Environmental Quality Act (CEQA) and connected actions for purposes of the National Environmental Policy Act (NEPA) analysis. Although these project components were analyzed in the same EIS/EIR, only a 0.8-mile underground segment of the ECO Substation Project 138 kV transmission line and portions of the Tule Wind Project would be located on BLM-managed lands (a separate ROD was prepared and signed for the Tule Wind Project (December 2011)). This decision does not approve the remaining components of the ECO Substation Project and the entire Tule Wind and ESJ Gen-Tie Projects.



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transmission line component of the Proposed Project (see Figure 2 of this ROD). While the Selected Alternative would increase the overall length of the proposed 138 kV transmission line a little over half a mile from the proposed action (from 13.3 to 13.9 miles), it would reduce impacts to cultural resources identified during the National Historic Preservation Act (NHPA) Section 106 consultation process and reduce impacts to visual resources.

This decision reflects careful consideration of the information generated from the ECO Substation Project environmental review process, and further reflects resolution of the issues identified through this process. As stated in the FEIS/FEIR in Section A.5.3, the responsible/cooperating agencies may use the EIS/EIR for their permitting processes. Section 3.2 of this ROD identifies the current status of the permitting process by these other agencies.

This ROD applies only to BLM-managed lands, and the BLM's decision for the ECO Substation Project 138 kV transmission line and does not include components of the ECO Substation Project located on private lands, or the Tule Wind, Energia Sierra Juarez (ESJ) Gen-Tie, Campo, Manzanita, and Jordan projects addressed in the FEIS/FEIR. Other agencies, including but not limited to, the CPUC; Bureau of Indian Affairs; Ewiiapaayp, Manzanita, and Campo Native American Indian tribes; California State Lands Commission; and County of San Diego, are responsible for identifying their preferred alternatives and issuing their own decisions and applicable authorizations.

## **Decision Rationale**

This decision fulfills legal requirements for managing public lands. Granting the ROW for the 0.8-mile underground segment of the ECO Substation Project 138 kV transmission line located on public land contributes to the public interest in reducing energy costs and providing a reliable electricity supply that allows for the delivery of renewable power to meet state and federal renewable energy goals. The stipulations in the grant ensure that authorization of this project will protect environmental resources and comply with environmental standards. These decisions reflect careful balancing of many competing public interests in managing public lands. These decisions are based on comprehensive environmental analysis and full public disclosure and involvement. The BLM and CPUC engaged highly qualified technical experts to analyze the environmental effects of the ECO Substation Project. During the scoping process and following the publication of the Draft EIS/EIR, members of the public submitted comments that enhanced the BLM's consideration of many environmental issues relevant to this project. The BLM, CPUC, U.S. Army Corps of Engineers (ACOE), U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and other responsible agencies used their expertise and existing technology to address the important issues of environmental resource protection. The BLM has determined that the measures contained in the FEIS/FEIR avoid and/or minimize environmental harm to the maximum extent practicable.

### **1. Decisions**

#### **1.1 Background**

This ROD for the ECO Substation Project 138 kV transmission line approves the construction, operation, maintenance, and termination of a proposed 0.8-mile underground segment on BLM-administered public lands of a 138 kV transmission line in southeastern San Diego County,



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California, as analyzed in the ECO Substation Project FEIS/FEIR. This decision approves the Agency Preferred Alternative as analyzed in the FEIS/FEIR. The Agency Preferred Alternative is also referred to as the “Selected Alternative” in this ROD.

This approval will take the form of a FLPMA ROW grant, issued in conformance with Title V of FLPMA and implementing regulations found at Title 43, Code of Federal Regulations (CFR) Part 2800. The decision contained herein applies only to the BLM-administered public lands within the boundary of the Selected Alternative. The other components of the ECO Substation Project located on private lands are subject to the permitting authority of the CPUC.

One ROW grant will be issued to SDG&E for a term of 30 years with a right of renewal in accordance with 43 CFR 2807.22. The ROW grant will allow SDG&E the right to use, occupy, and develop 10.44 acres of public lands to construct, operate, maintain, and terminate a 0.8-mile underground segment of a 138 kV transmission line in southeastern San Diego County. The underground segment of a 138 kV transmission line on BLM-managed public lands is located approximately 70 miles east of downtown San Diego, south of Interstate 8 (I-8), east of the town of Jacumba and along Old Highway 80, in San Diego County, California, within Township 18 South, Ranges 8 East, Section(s) 02, 03, 10, and 11. The 138 kV transmission line will transmit electricity between the proposed ECO Substation and the proposed rebuilt Boulevard Substation. Figures 1 and 2 of this ROD show the location of the project site.

The BLM requires the initiation of project construction within 2 years of the issuance of a ROW lease/grant. Initiation of construction will be conditioned on final BLM approval of the construction plans. This approval will take the form of an official Notice to Proceed (NTP). The issuance of an NTP by CPUC for project components located within BLM lands does not authorize construction to start, but only documents compliance with all relevant mitigation measures and permit conditions. No construction may occur on BLM lands without specific approval by BLM. If the approved project does not progress to construction or operation and a change is proposed that appears to the BLM to be a new project proposal on the approved project site, that proposal is subject to additional NEPA review (40 CFR 1502.9(c)).

The ROD conditions the ROW grant on implementation of mitigation measures and monitoring programs as identified in Appendix C, Adopted Mitigation Measures, to this ROD; the Biological Opinion (BO) issued by the USFWS, which is provided in Appendix A to this ROD; NHPA Section 106 Memorandum of Agreement (MOA), which is provided in Appendix B of this ROD; and the issuance of all other necessary local, state, and federal approvals, authorizations, and permits. In addition, the ROW grant is conditioned upon any amendments to the BO, the MOA, and other necessary approvals, authorizations, and permits.

As discussed in Section E.5.2 of the FEIS/FEIR, the BLM’s Preferred Alternative for the ECO Substation Project 138 kV Transmission Line is the ECO Partial Underground 138 kV Transmission Route Alternative, which proposes rerouting and undergrounding approximately 7.1 miles of the 13.9-mile 138 kV transmission line. Approximately 0.8 mile of the 7.1-mile underground transmission line associated with the ECO Partial Underground 138 kV Transmission Route Alternative would be located across BLM-administered lands. The discontinuous segments of the underground 138 kV transmission line would cross public lands at three locations along Old Highway 80, and total 0.8 mile on public lands (see Figure 2 of this



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ROD). The portion of the 138 kV gen-tie not on public lands will be approved by the CPUC (the entirety of SDG&E's ECO Substation Project, including the portions on BLM-administered public lands, is analyzed in Sections D.2 through D.18 of the FEIS/FEIR).<sup>2</sup>

Construction of the ECO Substation Project is expected to begin in fall 2012 and is anticipated to require 24 months to complete. Construction activities associated with the 0.8-mile segment of underground 138 kV transmission line located on public lands are anticipated to require 2 months to complete (although it may not be a consecutive 2 months). Commercial operation could commence as early as 2014. The sequence of project construction activities is outlined in the plan of development (POD) on file with the BLM and in the BO provided in Appendix A to this ROD.

### **1.1.1 Application/Applicant**

SDG&E, a Sempra Energy utility, is proposing to construct and operate the ECO Substation Project on public and private land. SDG&E submitted a ROW application and preliminary POD (the Proponent's Environmental Assessment (PEA)) to the BLM to construct, operate, maintain, and terminate a transmission line in southeastern San Diego County on August 13, 2009. Through the environmental review process, 15 data requests were made to SDG&E for clarifications on the proposed ECO Substation Project. These data requests and responses are located on the CPUC's project website located at:  
[http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/ECO\\_DR.htm](http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/ECO_DR.htm).

### **1.1.2 Bureau of Land Management Purpose and Need**

In accordance with FLPMA (Section 103(c)), public lands are to be managed for multiple uses that takes into account the long-term needs of future generations for renewable and non-renewable resources. The Secretary of the Interior is authorized to grant ROWs on public lands for systems of generation, transmission, and distribution of electric energy (FLPMA, Section 501(a)(4)). Taking into account the BLM's multiple-use mandate, the purpose and need for the Proposed Action is to respond to a FLPMA ROW application submitted by SDG&E to construct, operate, maintain, and terminate a transmission line on public lands managed by the BLM in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws and policies.

The BLM is deciding whether to deny the proposed ROW, grant the ROW, or grant the ROW with modifications. Modifications may include modifying the proposed use or changing the alignment route (43 CFR 2805.10(a)(1)).

### **1.1.3 BLM Authority**

#### **1.1.3.1 Federal Land Policy and Management Act of 1976**

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<sup>2</sup> SDG&E submitted an application to the CPUC for a Permit to Construct the East County Substation Project in August 2009. The CPUC has permitting authority over the ECO Substation Project, which includes the substation facility, SWPL Loop-In, portions of the 138 kV transmission line located on private lands, and the Boulevard Substation rebuild. The CPUC anticipates making a decision on the ECO Substation Project in early 2012.



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FLPMA establishes policies and procedures for the management of public lands. In Section 102(a)(8), congress declared that it is the policy of the United States that:

*“ . . . the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use” (43 United States Code (U.S.C.) 1701(a)(8)).*

Title V of FLPMA (43 U.S.C. 1761–1771) authorizes the BLM, acting on behalf of the Secretary of the Interior, to authorize a ROW grant on, over, under, and through the public lands for systems for generation, transmission, and distribution of electric energy. The BLM’s implementation of its statutory direction for ROW authorizations is detailed in 43 CFR 2800. The BLM Authorized Officer (AO) administers the ROW authorization and ensures compliance with the terms and conditions of the ROW. The AO is any employee of the Department of the Interior to whom the authority to perform the duties described in 43 CFR 2800 has been delegated. This authority is derived from the authority of the Secretary of the Interior and may be revoked at any time. The authority to approve all actions pertaining to the granting and management of Title V ROWs on public lands is delegated to the respective BLM State Directors (BLM Manual 1203, Appendix 1, p. 33). In California, the authority of the BLM State Director to approve actions pertaining to the granting and management of Title V ROWs has been further delegated to the Field Managers.

With respect to this specific ROW grant, this authority has been delegated to the Field Manager of the El Centro Field Office, who will be responsible for managing the ROW grant for the ECO Substation Project.

### **1.1.3.2 National Environmental Policy Act**

Section 102(c) of NEPA (42 U.S.C. 4321 et seq.) and the Council on Environmental Quality (CEQ) and DOI implementing regulations (40 CFR 1500–1508 and 43 CFR 46) provide for the integration of NEPA directives into agency planning to ensure appropriate consideration of NEPA’s policies and to eliminate delay.

When taking actions such as approving ROW grants, the BLM must comply with the applicable requirements of NEPA and the CEQ’s NEPA regulations. Compliance with the NEPA process is intended to assist federal officials in making decisions about a project that are based on an understanding of the environmental consequences of the decision, and identifying actions that protect, restore, and enhance the environment. The FEIS/FEIR and this ROD document the BLM’s compliance with the requirements of NEPA for the ECO Substation Project.

### **1.1.3.3 BLM Eastern San Diego County Resource Management Plan**

In furtherance of its authority under FLPMA, the BLM manages land in eastern San Diego County pursuant to the *Eastern San Diego County Resource Management Plan (RMP)* (2008). The Eastern San Diego County RMP and associated ROD guide the development and management of the Eastern San Diego County Planning Area, an area spanning an eastern escarpment of Southern California’s Peninsular Ranges and including more than 100,000 acres



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of public land managed by the BLM. In 2008, the BLM revised the RMP for public lands in eastern San Diego County, in part to respond to the established national goals and directives regarding renewable energy development on public lands. Among other issues, the revisions made to the Eastern San Diego County RMP addressed the environmental and public concerns associated with energy development and transmission corridors in the planning area. The BLM RMP identified a select portion of the planning area as a utility corridor (this corridor has a maximum length of 1.5 miles and maximum width of 1 mile with the northern boundary being the southern boundary of the I-8 ROW and the southern boundary being the U.S.–Mexico border). The 0.8-mile underground segment of the ECO Substation Project 138 kV transmission line would be constructed and would operate within the designated utility corridor.

The RMP also addresses conflicts among various recreational users accessing BLM lands, provides direction for future site-specific development, including renewable energy projects, and provides for plan monitoring to determine the effectiveness of BLM land management strategies. The RMP further indicates that future policy decisions and land management strategies shall be compatible with the multiple-use mission of the BLM (the multiple-use mission includes recreational use and responsible development within BLM-managed lands while maintaining the environmental quality of the land).

#### **1.1.3.4 Other Guidance and Regulations**

The BLM processes ROW grant applications for electrical transmission lines in accordance BLM ROW regulations at 43 CFR 2800. In conjunction with the FLPMA, BLM authorities also include Executive Order 13212 (May 18, 2001), which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the “production and transmission of energy in a safe and environmentally sound manner.”

### **1.2 Information Developed Since the FEIS/FEIR and Adequacy of NEPA Analysis**

Since the preparation and publication of the FEIS/FEIR, no new information has become available, there have been no modifications to the Selected Alternative, and no additional NEPA analysis is required.

### **1.3 Decisions Being Made (40 CFR 1505.2(a))**

#### **1.3.1 Right-of-Way Grant**

Under federal law, the BLM is responsible for processing requests for ROW grant applications to determine whether and to what extent to authorize requests such as renewable energy projects, transmission lines, and other appurtenant facilities on land it manages (43 U.S.C. 1764(a)). Because the project is a privately initiated venture and would be partially sited on lands managed by the BLM, the applicant applied for a ROW grant from the BLM pursuant to federal laws and regulations. The BLM concludes that the acreage that will be approved by the ROW grant is the acreage that the 138 kV transmission line corridor for the ECO Substation Project will occupy on BLM-managed land and that is necessary for constructing, operating, and maintaining the authorized facilities on public lands. In addition, the BLM has included grant conditions—based on the FEIS/FEIR, the BO, the MOA, and other applicable federal rules and regulations (any and



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all of which may be amended)—to protect public health and safety, prevent unnecessary damage to the environment, and ensure that the project will not result in unnecessary or undue degradation of public lands. On approval of the ROW grant, the applicant will be authorized to construct and operate the 0.8-mile underground segment of the proposed 138 kV transmission line on 10.44 acres of public lands if the requirements specified in this ROD are met. The ROD requires the applicant to secure a Permit to Construct from the CPUC and obtain all necessary local, state, and federal permits, authorizations, and approvals. Upon receipt of the NTP, and by remaining consistent with the ROW grant, the applicant will be authorized to construct and operate the 0.8-mile underground segment of the ECO Substation Project 138 kV transmission line and associated access roads and staging areas on the proposed public land site(s). The 0.8-mile discontinuous segment of the underground 138 kV transmission line would cross public lands at three locations along Old Highway 80 (see Figure 2 of this ROD). The BLM also has the discretion to work with the developer to determine a logical sequence of construction activities to assist with meeting development financing constraints.

### **1.3.2 What is Not Being Approved**

Under NEPA, related actions can be considered in an environmental document as “connected,” “cumulative,” or “similar” actions. NEPA regulation requires that the federal agency consider the proposed action and other “connected” or “cumulative” actions in the same EIS (40 CFR 1508.25). An agency may, but is not required to, consider other “similar” actions in the same environmental document.

As analyzed in the FEIS/FEIR, the ECO Substation, Tule Wind, and ESJ Gen-Tie Projects were considered components of the Proposed PROJECT for purposes of the California Environmental Quality Act (CEQA) and connected actions for purposes of NEPA analysis. Although these project components were analyzed in the same EIS/EIR, only a 0.8-mile underground segment of the ECO Substation Project 138 kV transmission line and portions of the Tule Wind Project would be located on BLM-administered lands (a separate ROD has been prepared and approved for the Tule Wind Project). Therefore, this decision does not approve the remaining components of the ECO Substation Project and the entire Tule Wind and ESJ Gen-Tie Projects.

As discussed in FEIS/FEIR in Section C, Alternatives, four alternatives and two no action alternatives, as well as the Proposed Action (described in FEIS/FEIR Section B.3, ECO Substation Project), were developed for full consideration in the FEIS/FEIR. The Proposed Action and four alternative configuration and design alternatives considered include the:

- Proposed Action
- ECO Substation Site Alternative (shifts proposed substation 700 feet east from Proposed Action location)
- ECO Partial Underground 138 kV Transmission Route Alternative
- ECO Highway 80 138 kV Transmission Route Alternative
- ECO Highway 80 Underground 138 kV Transmission Route Alternative.



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As discussed in FEIS/FEIR Section C.5, Alternatives Eliminated from Full EIR/EIS Evaluation, other alternative sites, segments, connections, and methods were considered but eliminated from detailed analysis in the FEIS/FEIR. After consideration of the impact analysis in the FEIS/FEIR and comments from the public, federal and state agencies, and local groups and individuals, the BLM identified the Preferred Alternative, as identified in the FEIS/FEIR. This ROD addresses and approves the project components of the BLM's Preferred Alternative that are located on public lands. The rationale for this decision is discussed in Section 3.1 of this ROD.

#### **1.4 ROW Requirements**

The BLM uses Standard Form (SF) 2800-14 BLM (ROW Lease/Grant) to authorize the ROW lease/grant for the project; it includes the POD and all other terms, conditions, stipulations, and measures required as part of the lease/grant authorization. Consistent with BLM policy, the ECO Substation ROW lease/grant will include a diligent development and performance bonding requirement for installation of facilities consistent with the approved POD. Construction of the initial phase of development must commence within 2 years after the effective date of the ROW lease/grant for the ROW holder to be compliant with the terms of the grant.

Prior to the termination of the ROW authorization, a final decommissioning plan will be developed in compliance with the standards and requirements for closing a site and will be circulated for approval by interested agencies. The ROW grant could potentially be renewed by SDG&E; however, according to CFR 43 2805.15, the BLM retains the right to determine whether the ROW grant is renewable. If the applicant chooses to renew the ROW, the applicant is required to submit an application. Upon review, BLM will make a decision based on compliance history and applicable federal laws and regulations (43 CFR 2807.22(a)).

#### **1.5 Future Changes to the Approved Project**

At various times throughout the project, the need for extra workspace or additional access roads may be identified. Similarly, changes to the project requirements (e.g., mitigation measures, specifications) may be needed to facilitate construction or provide more effective protection of resources. The BLM and grant holder will work together to find solutions when adjustments are necessary for specific field situations to avoid conflicts with adopted mitigation measures or specifications.

The BLM Compliance Project Manager and Compliance Monitors will ensure that any deviation from the procedures identified under the monitoring program is consistent with NEPA requirements. No project adjustment will be approved if it creates new significant impacts or substantially modifies the project footprint. Adjustments will be limited to minor project changes that will not trigger other permit requirements or create new or greater impacts and that clearly and strictly comply with the intent of the mitigation measures. A proposed project change that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental NEPA analysis is required. In some cases, an adjustment may also require approval by other jurisdictional agencies.

#### **1.6 Summary of Conclusions**



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The Selected Alternative for the ECO Substation Project 138 kV transmission line (the ECO Partial Underground 138 kV Transmission Route Alternative, which includes a 0.8-mile underground segment of the transmission line across BLM-administered lands), is the action alternative that provides the most public benefits and avoids the greatest potential impacts on land use, cultural, and visual resources for the following reasons:

- As a result of the ECO Partial Underground 138 kV Transmission Route Alternative, permanent impacts are reduced because underground installation of segments of the transmission line would reduce potential conflicts involving established land uses and aboveground project facilities (i.e., transmission line and structures).
- As a result of consultation with tribal governments/representatives and the MOA, many cultural resources in the area are avoided by the Selected Alternative, or the impacts are substantially mitigated.
- The Selected Alternative would underground segments of the 138 kV transmission line and would therefore reduce the number of new aboveground structures added to the existing visual landscape.

## **2. Mitigation and Monitoring**

### **2.1 Required Mitigation**

The ECO Substation Project includes the following measures, terms, and conditions:

- Terms and conditions in the USFWS BO, provided in Appendix A to this ROD, as may be amended
- Terms and conditions in the MOA, provided in Appendix B to this ROD, as may be amended
- Adopted avoidance, minimization, and mitigation measures provided in FEIS/FEIR Chapter D, Environmental Analysis, as amended by this ROD (provided in Appendix C to this ROD), and as may be further amended over time
- The Draft MMCRP for this project is summarized in Section H of the FEIS/EIR. The final plan will be made available in its entirety on the CPUC website for the ECO Substation Project: <http://www.cpuc.ca.gov/environment/info/dudek/ecosub/ecosub.htm>. The MMCRP includes verifying implementation and compliance with project mitigation measures, including preparation and implementation of plans such as, but not limited to, the Fire Protection Plan. In addition, SDG&E will be required to prepare a Habitat Restoration Plan prior to issuance of an NTP. The MMCRP includes preparation of over 30 plans. The BLM will not issue an NTP for surface-disturbing activity until the MMCRP is complete and posted on the CPUC website. The BLM will use the process described in the MMCRP to ensure that the appropriate plans are completed prior to NTP issuance for actions affecting a particular resource.



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For compliance purposes, the complete language of these measures, terms, and conditions is provided in the MMCRP for the ECO Substation Project as stipulated in the ROW grant. These measures, terms, and conditions are determined to be in the public interest pursuant to 43 CFR 2805.10(a)(1), since they ensure the project will be constructed, operated, maintained, and terminated in conformity with the decisions issued by the BLM.

## **2.2 Monitoring and Enforcement**

Federal regulations require the BLM (40 CFR 1505.3), or other appropriate consenting agency, to implement mitigation (40 CFR 1505.2(c)) and other conditions as established in the FEIS/FEIR or during its review and committed as part of the decision unless such agency explains why such measures were not adopted. The agency may also provide for monitoring to assure that its decisions are carried out and should do so in important cases. The BLM must adopt a monitoring and enforcement program where applicable for any identified mitigation (40 CFR 1505.2(c)). The BLM shall:

- Include appropriate conditions in grants, permits, or other approvals;
- Condition funding of actions on mitigation;
- Upon request, inform cooperating or commenting agencies on the progress in carrying out mitigation measures they have proposed and that were adopted by the agency making the decision; and
- Upon request, make available to the public the results of relevant monitoring.

As the federal lead agency for the ECO Substation Project under NEPA, the BLM is responsible for ensuring compliance with all adopted mitigation measures for project components of the ECO Substation Project located on public lands. The complete language of all the measures is provided in the MMCRP for the ECO Substation Project, which will be made available in its entirety on the CPUC website for the project:

<http://www.cpuc.ca.gov/environment/info/dudek/ecosub/ecosub.htm>.

The overall objective of the MMCRP is to conduct inspections of construction activities on public lands and to evaluate and document compliance or noncompliance with the project measures and conditions applicable to public lands during project construction. The BLM also will incorporate this mitigation into the ROW grant as terms and conditions. Failure on the part of SDG&E as the grant holder to adhere to these mitigation measures, terms, and conditions could result in administrative actions up to and including termination of the ROW grant and requirement to remove the facilities and rehabilitation of all public land disturbances. All practicable means to avoid or minimize environmental harm have been adopted under this decision.

## **2.3 Mitigation Measures Not Adopted**

Consistent with 40 CFR 1505.2(c), the ROD is to state whether all practicable means to avoid or minimize environmental harm from the ECO Substation Project have been adopted, and if



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not, why. The purpose of the joint EIS/EIR was to evaluate the environmental impacts of three projects, the ECO Substation, Tule Wind, and ESJ Gen-tie Projects. The proposed ECO Substation Project includes two substations, the ECO Substation and Boulevard Substation rebuild, as well as the 138 kV transmission line, which includes both an underground and overhead component on private lands for which the CPUC considered SDG&E's Permit To Construct and are not the subject of this ROD. As such, some of the proposed mitigation measures identified in the EIS/EIR are not applicable to the 138 kV transmission portion traversing BLM-managed lands, which is the subject of this ROD. Mitigation measures that are not under the compliance enforcement authority of the BLM are not considered to be BLM-required mitigation. Mitigation measures not applicable to the BLM-required mitigation include measures related to the overhead 138 kV transmission components as the BLM ROD is limited to underground transmission facilities. As such, there may be mitigation measures identified in the FEIS/FEIR that are not adopted by the BLM because they are not within its compliance authority or not applicable to the effects of the BLM portion of the project.

The FEIS/FEIR identified mitigation measures for effects on non-BLM lands. The BLM will not adopt the following mitigation measures because they are not applicable to the effects of the BLM action (undergrounding 0.8 mile of the 138 kV transmission line). The full text of the following mitigation measures are found in the MMCRP, which will be posted on the CPUC's project website (<http://www.cpuc.ca.gov/environment/info/dudek/ecosub/ecosub.htm>).

**MM BIO-7g** Conduct protocol surveys for Quino checkerspot butterfly [*Euphydryas editha quino*] within 1 year prior to project construction activities in occupied habitat.

**MM BIO-7h** Provide compensation for temporary and permanent impacts to Quino checkerspot butterfly habitat through conservation and/or restoration.

**MM BIO-7i** Final design of transmission towers and access roads through Quino checkerspot butterfly critical habitat shall maximally avoid host plants for Quino checkerspot butterfly.

**Rationale** Under the Selected Alternative, portions of the 138 kV transmission line on BLM-managed lands would not be located within USFWS-designated Quino checkerspot butterfly occupied habitat.

**MM BIO-10a** Design all transmission towers and lines to conform with Avian Power Line Interaction Committee standards.

**MM BIO-10b** Develop and implement project-specific Avian Protection Plans.

**Rationale** Under the Selected Alternative, the 138 kV transmission line would be installed underground on BLM-managed lands and would not result in wire and/or transmission tower impacts from electrocution and collision of bird species with towers or wires.

**MM VIS-1a** Reduce impacts at scenic highway and trail crossings.

**MM VIS-1b** Reduce impacts at scenic view areas.



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**Rationale** Under the Selected Alternative, the 138 kV transmission line would be installed underground on BLM-managed lands. Aboveground transmission towers and line would not be constructed on BLM-managed lands.

**MM VIS-3g** Reduce visual contrast associated with substation and ancillary facilities.

**MM VIS-3h** Screen substations and ancillary facilities.

**Rationale** MM VIS-3g applies to visual contrast associated with the construction and operation of Proposed Action substations and ancillary facilities. Under the Selected Alternative, substations and ancillary facilities would not be constructed on BLM-managed lands.

**MM VIS-3i** Reduce potential visual contrast of transmission structures.

**MM VIS-3j** Reduce potential transmission conductor visibility and visual contrast.

**MM VIS-3k** Reduce potential visual contrast from transmission structure spacing.

**MM VIS-3l** Reduce potential view blockage and visual contrasts of structures.

**Rationale** There are no residences located on BLM-managed lands. Under the Selected Alternative, the 138 kV transmission line would be installed underground on BLM-managed lands. Aboveground transmission structures would not be constructed on BLM-managed lands.

**MM VIS-4a** Reduce long-term night-lighting impacts from substations and ancillary facilities.

**Rationale** Under the Selected Alternative, substations and ancillary facilities would not be constructed on BLM-managed lands.

**MM NOI-2** Conductor configuration selection to address noise impacts.

**Rationale** Under the Selected Alternative, the 138 kV transmission line would be installed underground on BLM-managed lands. Underground transmission infrastructure would not generate perceptible corona noise.

**MM TRA-3** Consult with and inform the FAA, DOD, and U.S. Customs and Border Protection.

**Rationale** Under the Selected Alternative, the 138 kV transmission line would be installed underground on BLM-managed lands and conflicts between aircraft and underground facilities would not occur.

**MM HAZ-1d** Testing for environmental hazards associated with demolition.

**Rationale** This measure is applicable to the Boulevard Substation, which, under the Selected Alternative, would not be located on BLM-managed lands.



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**MM HAZ-2a** Test for pesticides/herbicides on currently or historically farmed land.

**Rationale** This measure is applicable to the portion of the proposed 138 kV transmission line that would traverse Jacumba Valley Farms that is not on public lands. Under the Selected Alternative, the 138 kV transmission line on BLM-managed lands would not be located on currently or historically farmed lands.

**MM HAZ-5a** Spill Prevention Control and Countermeasure Plan.

**MM HAZ-5b** Hazardous Materials Business Plan.

**Rationale** These measures are applicable to proposed substation facilities and under the Selected Alternative, substation facilities would not be located on BLM-managed lands.

**MM PS-1a** Minimize electromagnetic and public safety communications.

**MM PS-1b** Limit conductor surface potential.

**MM PS-1c** Document complaints of broadcast interference.

**Rationale** Under the Selected Alternative, the 138 kV transmission line would be installed underground on BLM-managed lands; therefore, no impact to communication systems would occur.

**MM HYD-4** Preparation of a Stormwater Management Plan.

**Rationale** Under the Selected Alternative, the 138 kV transmission line would be installed underground on BLM-managed lands and there would be no impervious surface area created and no runoff potential.

## **2.4 Statement of All Practicable Mitigation Adopted**

As required in the BLM *NEPA Handbook H-1790-1* and 40 CFR 1505.2(c), all practicable means to avoid or minimize the environmental harm from the alternative selected have been adopted by this ROD. The complete language of the adopted mitigation measures is provided in Appendix C to this ROD, and mitigation measures the BLM is not adopting are provided in Section 2.3 of this ROD. Additional mitigation may be necessary to fully mitigate potential effects of the project according to state laws (including CEQA), rules, policy, or regulations.

## **2.5 Coordination with Other BLM Monitoring Activities**

In 2009, the BLM and the CPUC formalized a Memorandum of Understanding (MOU) for the joint environmental review of the ECO Substation and Tule Wind Projects. The purpose of the MOU was to set forth the understanding between BLM and CPUC pertaining to conditions and procedures to be followed in preparing and completing a joint EIS/EIR, including the environment and technical information collection, analysis and reporting necessary to fully comply with the NEPA and CEQA regulations and guidelines pertaining thereto. In addition, the



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MOU states that the CPUC shall be responsible for implementing all mitigation and monitoring provisions on both state and federal lands for the ECO Substation Project only, as adopted in the FEIS/FEIR. However, this MOU does not waive BLM's authority to enforce the terms of the grant, including mitigation measure incorporated into the grant as stipulations.

### **3. Management Considerations**

#### **3.1 Decision Rationale**

This decision approves a ROW grant for the 0.8-mile underground segment of the ECO Substation Project 138 kV transmission line located on BLM-managed public lands as analyzed in the FEIS/FEIR under the ECO Partial Underground 138 kV Transmission Route Alternative (the Selected Alternative). The BLM's decision to authorize this activity is based on the findings of the associated FEIS/FEIR and the rationale described throughout the ROD and as detailed in the following sections.

##### **3.1.1 Respond to Purpose and Need**

The BLM's purpose and need for the ECO Substation Project is to respond to the applicant's application under Title V of FLPMA for a ROW grant to construct, operate, maintain, and terminate a 0.8-mile underground segment of a 138 kV transmission line on public lands in compliance with FLPMA, BLM ROW regulations, and other applicable federal laws. Specifically, the BLM has decided to approve a ROW grant to the applicant for the Selected Alternative (a 0.8-mile underground segment of the ECO Partial Underground Transmission Route 138 kV Alternative that would be located on BLM-managed lands).

The construction, operation, maintenance, and termination activities associated with the Selected Alternative, either singularly or with mitigation, are in conformance with the following land use plans and policies:

- BLM Eastern San Diego County RMP of 2008
- BLM policy and guidance for issuing ROW grants.

The Selected Alternative meets the BLM purpose and need for the ECO Substation Project.

##### **3.1.2 Achieve Goals and Objectives**

The Selected Alternative would accomplish the objectives of the purpose and need, including conveying electricity from renewable generation projects into a state-of-the-art electric transmission grid system, as well as federal and state objectives for renewable energy development. The project complies with Eastern San Diego County RMP utility corridor objectives for the placement of major utility ROWs within the designated utility corridor. Additionally, the BLM consulted extensively with affected Native American tribes and other responsible parties to identify project modifications that would minimize impacts to natural and cultural resources. The Selected Alternative provides the best balance between maximizing renewable energy capacity while reducing adverse impacts as compared to other action alternatives.



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### 3.1.3 Status of Required Actions

The following federal statutes require that specific actions be completed prior to issuing an ROD and project approval. Specifically, the project proponent must secure a BO pursuant to the Endangered Species Act (ESA), an MOA must be executed under the NHPA, and appropriate permits under the Clean Water Act.

#### 3.1.3.1 Endangered Species Act of 1973

Section 7 of the ESA (16 U.S.C. 1531 et seq.) requires federal agencies to consult with USFWS to ensure that the actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a threatened or endangered terrestrial species or result in the destruction or adverse modification of critical habitat for these species. Under ESA Section 7(b)(3), USFWS provides a written statement (BO) setting forth the agency's opinion, and a summary of the information on which the opinion is based detailing how the Proposed Action affects the species or its critical habitat for the entirety of the Proposed Action. If jeopardy or adverse modification is found, the agency suggests reasonable and prudent alternatives that can be taken in implementing the agency action.

On September 8, 2010, the applicant formally initiated consultation through submittal of the *San Diego Gas and Electric Company East County Substation Project Biological Assessment* (to the USFWS, which addressed endangered and threatened species near the project site. In addition, a request for formal Section 7 consultation was submitted to USFWS by the BLM on the same day. Between September 2010 and May 2011, USFWS, BLM, CDFG, and the applicant participated in numerous meetings and workshops. The coordination among these agencies resulted in the development of mitigation measures to avoid, minimize, and offset impacts to the Quino checkerspot butterfly. On May 16, 2011, USFWS provided a draft BO for review and comment to the BLM and SDG&E and comments were provided back to the USFWS in a memorandum dated June 29, 2011. The USFWS issued a BO for the ECO Substation Project on September 1, 2011 (FWS-SD-10B0136-11F0122). The BO is provided in Appendix A to this ROD.

The BO concludes that with implementation of the stated conservation measures, impacts of the ECO Substation project would be effectively minimized and offset, and are not likely to jeopardize the continued existence of the Quino checkerspot butterfly. In addition, the BO extended an exemption for take of Quino checkerspot butterfly incidental to SDG&E's maintenance of the substation and the transmission line.

Since the Selected Alternative in this ROD does not impact Quino checkerspot butterfly, compliance with the BO for private land impacts is the responsibility of SDG&E. The BLM's issuance of a ROW grant will require SDG&E to comply with the BO, and any amendment thereto, since the BO was issued for the ECO project as a whole. However, compliance with the conservation measures, or the terms and conditions of the BO remain the responsibility of the grant holder since they are not within the administrative jurisdiction of the BLM. Similarly, the grant contains a standard stipulation that requires compliance with the BO, as amended.

#### 3.1.3.2 The Bald and Golden Eagle Protection Act



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The Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668) protects bald and golden eagles (*Haliaeetus leucocephalus* and *Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this act. Under the act, “take” includes to “disturb,” which means “to agitate or bother a bald eagle or a 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 with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (50 CFR 22.3).

Due to the distance of known golden eagle nests in relation to the ECO Substation Project area, the FEIS/FEIR determined that direct and indirect impacts to nesting golden eagles from construction activities would not be adverse and no loss of individuals or territories are anticipated. The FEIS/FEIR also concluded that the removal of suitable foraging habitat for this species would be an insignificant proportion of the available foraging habitat in the region.

Mitigation Measure BIO-10b of the FEIS/FEIR requires SDG&E to develop and implement an Avian Protection Plan related to wire, transmission tower, and facilities impacts from electrocution and collision of bird species, including raptors. The Avian Protection Plan would be developed jointly with the USFWS and CDFG and would provide the framework necessary for implementing a program to reduce bird mortalities and document response actions. The CPUC will be responsible for ensuring an Avian Protection Plan has been developed for the ECO Substation Project in accordance with Mitigation Measure BIO-10b and that SDG&E submits it to CDFG and USFWS for review and comment. Since no aboveground components of the 138 kV transmission line will be constructed within BLM-managed lands, the BLM will not adopt Mitigation Measure BIO-10b and has no oversight responsibility of the Avian Protection Plan.

### **3.1.3.3 The National Historic Preservation Act**

Section 106 of the NHPA (16 U.S.C. 470) requires federal agencies to take into account the effects that their approvals and federally funded activities and programs have on historic properties. “Historic properties” are those properties that are included in, or eligible for, the National Register of Historic Places (36 CFR 800.16(l)(1)). The BLM initiated consultation for the ECO Substation Project under NHPA Section 106, and the requisite process has been completed. In accordance with 36 CFR 800.6, an MOA has been executed to address impacts to cultural resources caused by the ECO Substation Project. As a result, the Selected Alternative would result in impacts that are less than the other build alternatives related to cultural resources. The executed MOA is provided in Appendix B to this ROD.

### **3.1.3.4 Clean Air Act, as Amended in 1990**

Title 40 CFR 51 (Subpart W - Determining Conformity of General Federal Actions to State or Federal Implementation Plans) and Title 40 CFR 93 (Subpart B - Determining Conformity of General Federal Actions to State or Federal Implementation Plans) require federal actions to comply with the requirements of the 1990 amendments to the Clean Air Act (CAA) (42 U.S.C 7401 et seq.). The ECO Substation Project will be in conformance with the requirements of the CAA based on the project mitigation, terms, conditions, and stipulations



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related to emission controls and reductions during project construction, operation, maintenance, and termination phases.

### **3.1.3.5 Clean Water Act**

The Clean Water Act (CWA) (33 U.S.C. 1251-1376) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires an applicant for a federal license or permit that allows activities resulting in a discharge to navigable waters to obtain a state certification that the discharge complies with other provisions of the CWA (33 U.S.C. 1341). The Regional Water Quality Control Boards (RWQCBs) administer the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredge or fill material) from a point source into navigable waters (33 U.S.C. 1342). Section 404 establishes a permit program administered by the ACOE to regulate the discharge of dredged or fill material into the navigable waters, including wetlands (33 U.S.C. 1344). The CWA also contains the requirements under which the RWQCBs set water quality standards for all contaminants in the waters of the U.S.

In the State of California, CDFG must be notified prior to beginning any activity that would obstruct or divert the natural flow of, use material from, or deposit or dispose of material into a river, stream, or lake, whether permanent, intermittent, or ephemeral waterbodies under Section 1602 of the California Fish and Game Code. The final proposal that is mutually agreed upon by CDFG and the applicant is the Streambed Alteration Agreement and the conditions of a Streambed Alteration Agreement and a CWA Section 404 permit often overlap.

As discussed in the FEIS/FEIR, numerous dry washes, swales, and wetland features occur in the 138 kV transmission line project area and the construction of project components on public lands have the potential to impact water resources under the jurisdiction of the ACOE, RWQCB, and CDFG. Because construction activities associated with the Selected Alternative would impact ACOE-, RWQCB-, and CDFG-jurisdictional resources, the project applicant will be required to obtain several of the necessary permits discussed above prior to issuance of an NTP, including a CWA Section 404 permit from ACOE, Section 401 certification from the RWQCB, and a Streambed Alteration Agreement from CDFG. The project applicant will ensure that permits from resource agencies having jurisdiction over jurisdictional resources are obtained prior to issuance of the NTP that would result in direct impacts to jurisdictional resources. The permits obtained from resource agencies will identify the required mitigation to ensure no-net-loss.

### **3.1.4 Statement of No Unnecessary or Undue Degradation**

Congress has declared that public lands be managed for multiple use and sustained yield and in a manner to protect certain land values, provide food and habitat for species, and provide for outdoor recreation and human occupancy and use (43 U.S.C. 1701(a)(7), (8)). Multiple-use management means that public land resources are to be managed to best meet the present and future needs of the American public, taking into consideration the long-term needs of future generations without permanent impairment of the lands (43 U.S.C. 1702(c)). BLM manages public land through land use planning, acquisition, and disposition, and through regulation of use, occupancy, and development of the public lands (43 U.S.C. 1711–1722, Subchapter II; 43 U.S.C. 1731–1748, Subchapter III).



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FLPMA specifically provides that in managing the use, occupancy, and development of the public lands, the Secretary of the Interior shall take any action necessary to prevent unnecessary or undue degradation of the lands (43 U.S.C. 1732(b)). The process for siting and evaluating the ECO Substation Project 138 kV transmission line has included extensive efforts on the part of BLM, CPUC, the applicant, local Native American tribes, other agencies, and public commenters to identify a project that accomplishes the purpose and need and other project objectives while preventing any unnecessary or undue degradation of the public lands. These efforts have included:

- Siting of the proposed transmission line in a location identified as suitable for major new utility ROWs (following NEPA review)
- Modification of the proposed alignment of the transmission line to minimize impacts to visual resources, cultural, and other resources
- Evaluation of project location alternatives that could meet the purpose and need for the proposed project, but result in the avoidance and/or minimization of impacts.

In addition, BLM ROW regulations at 43 CFR 2805.11(a)(1) to (5) require determinations for the following:

*BLM will limit the grant to those lands which BLM determines:*

- 1. Will be occupied with authorized facilities;*
- 2. Are necessary for constructing, operating, maintaining, and terminating the authorized facilities;*
- 3. Are necessary to protect the public health and safety;*
- 4. Will not unnecessarily damage the environment; and*
- 5. Will not result in unnecessary or undue degradation.*

The lands described in Section 1.3.1 of this ROD are the minimum necessary to accommodate the project. All lands that were originally included under the Selected Alternative that were determined not necessary for construction or operation and maintenance of the proposed facilities were eliminated from the project boundary. All temporary disturbances associated with underground utilities will be restored immediately to minimize erosion in accordance with approved restoration plans. Public health and safety will not be compromised by construction of the project as work areas will be posted and public access to those areas controlled to prevent possible injury to the public.

The Selected Alternative will achieve the beneficial impacts of the Proposed Action, including socioeconomic benefits of increases in employment during construction, the accommodation of the delivery of renewable energy to meet state and federal renewable energy goals from wind and solar sources in San Diego County, and displacement of greenhouse gas and air pollutants that are reduced and minimized with renewable energy generation. Based on the comparative



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analysis of the ability of each alternative to meet the purpose and need, and the environmental impacts that would be associated with each alternative as discussed in the FEIS/FEIR and as summarized above, the Selected Alternative was identified by the BLM as an alternative that does not unnecessarily damage the environment or create unnecessary or undue degradation of public lands.

The ECO Substation Project meets the requirements of applicable ROW regulations inasmuch as it includes terms, conditions, and stipulations that are in the public interest; prevents surface disturbance unless and until an NTP is secured; is issued for a period of 30 years, subject to potential renewal and periodic review; and contains diligence and bonding requirements to further protect public land resources. This approval provides that public land will be occupied only with authorized facilities and only to the extent necessary to construct, operate, maintain, and terminate the project. BLM conditions of approval provide for public health and safety and protect the environment and public lands at issue. The conditions of approval include compliance with this ROD, the FEIS/FEIR, the BO, and the MOA, as any or all of these may be amended. These federal requirements provide the basis for BLM's determination that the segments of the ECO Substation Project 138 kV transmission line located on BLM-managed public lands will not unnecessarily or unduly degrade these public lands.

### **3.1.5 Statement of Technical and Financial Capability**

FLPMA and its implementing regulations require that a project application include information on an applicant's technical and financial capability to construct, operate, maintain, and terminate the transmission line applied for (43 CFR 2804.12(a)(5)). This technical capability can be demonstrated by international or domestic experience with transmission lines or other types of electric energy-related projects on either federal or non-federal lands. Financial capability can be demonstrated by the disclosure of the availability of sufficient capital to carry out the proposed development.

SDG&E's statement of technical and financial capability is provided in the POD and the application for a ROW. SDG&E is a regulated public utility that supplies power to approximately 1.4 million accounts in a 4,100-square-mile service area. In addition, SDG&E is owned by Sempra Energy, an international energy services company consisting of five investor-owned utilities in North America and several subsidiaries in South America. The company (which employs approximately 17,500 people) serves more than 31 million customers. Sempra-owned enterprises include a full-service utility (SDG&E), a natural gas distribution utility (Southern California Gas Company), natural-gas fire power plants, natural gas pipelines and storage facilities, and liquefied natural gas receipt terminals, and has proposed wind generation facilities. The applicant has provided information on the availability of sufficient capital to carry out development, including the preliminary study phase of the project, as well as site testing, construction, and monitoring activities. Based on information provided by the applicant during the ROW grant and environmental review processes, the BLM has determined that it has the technical and financial capability required to construct, operate, maintain, and terminate the approved facility.

### **3.1.6 Adequacy of NEPA Analysis**



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Since the preparation and publication of the FEIS/FEIR, there have been no modifications to proposed project features or new project features or components that might require additional analysis through preparation of a supplemental EIS/EIR. This conclusion is in accordance with agency guidance set forth in Section 5.3 of the BLM NEPA Handbook (H-1790-1). The handbook addresses regulations issued by the CEQ at 40 CFR 1502.9(c), which call for agencies to prepare supplements to either a DEIS or FEIS if: (i) the agency makes substantial changes in the proposed action that are relevant to environmental concerns, or (ii) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. Moreover, the BLM has determined that a supplemental analysis is not required based on the following findings from the BLM NEPA Handbook:

- No substantial changes have been made to the Proposed Action that are relevant to environmental concerns (40 CFR 1502.9(c)(1)(i))
- No new alternative has been added that is outside the spectrum of alternatives already analyzed (see Question 29b, CEQ, Forty Most Asked Questions Concerning CEQ's NEPA Regulations, March 23, 1981)
- There are no significant new circumstances or information relevant to environmental concerns and bearing on the Proposed Action or its effects (40 CFR 1502.9(c)(1)(ii)).

In light of the above analysis and because no substantial changes have been made to the Selected Alternative that are relevant to environmental concerns and no new information substantially changes the analysis and effects identified in the FEIS/FEIR (40 CFR 1502.9(c)), no determination of NEPA adequacy is provided in this ROD and supplemental environmental analysis is not required.

## **3.2 Relationship to Agencies, Plans, Programs, and Policies Including Consultation**

### **3.2.1 Endangered Species Act Section 7**

The BLM's authorization of the requested ROW grant for the ECO Substation Project, including the resulting consultation and coordination with the USFWS, complies with ESA Section 7 regarding potential take of the Quino checkerspot butterfly.

As discussed in Section 3.1.3, the USFWS has jurisdiction over threatened and endangered species listed under the ESA. Formal consultation with the USFWS under ESA Section 7 concluded with the September 1, 2011, issuance of a BO for the ECO Substation Project related to potential impacts to the federally threatened Quino checkerspot butterfly and its designated critical habitat. Implementation of the conservation measures identified in the BO would reduce potential adverse impacts to the species. Implementation of these measures by SDG&E is mandatory and a condition of approval of this ROD. The BO is provided in Appendix A to this ROD.

### **3.2.2 National Historic Preservation Act – Memorandum of Agreement**

The BLM's authorization of the requested ROW grant for the ECO Substation Project, including the resulting consultation, coordination, development, and agreement memorialized in the MOA



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(provided in Appendix B to this ROD), complies with NHPA Section 106 of the NHPA regarding potential impacts related to cultural resources. The MOA documents the consultation and coordination that has occurred with respect to the project under Section 106 and reflects the measures identified to avoid, minimize, or mitigate the adverse effects of the Project on cultural resources.

Under NHPA Section 106, the BLM consults with parties that have an interest in effects of the undertaking on historic properties. The BLM consulted with the State Historic Preservation Officer, the ACOE, Native American tribes and the applicant as part of its responsibilities to identify, evaluate, and resolve adverse effects on cultural resources affected by BLM undertakings. The Advisory Council on Historic Preservation was invited into consultation on this project and they elected not to participate. In accordance with 36 CFR 800.6(b), an MOA is used for the resolution of adverse effects to historic properties in those situations where the agency and the SHPO agree on how the adverse effects will be resolved.

Based on the ongoing consultation with the consulting parties, including tribal governments and their representatives, many cultural resources in the area are avoided by the Selected Alternative and unavoidable impacts are substantially reduced. As a result, the Selected Alternative would result in impacts less than or similar to the other build alternatives related to cultural resources.

### **3.2.3 National Historic Preservation Act – Government-to-Government Consultation**

The BLM conducted government-to-government consultation with a number of tribal governments. The BLM invited tribes to consult on the proposed ECO Substation Project during the earliest stages of project planning. Tribal consultation was initiated by letter by the BLM for the ECO Substation Project on December 9, 2009. This letter also determined that the Tule Wind and ECO Substation Projects were connected actions that would undergo Section 106 review concurrently. Additional letters were sent by the BLM for both projects on April 1, 2010, and September 20, 2010. A Section 106 Consulting Party Meeting was held on March 1, 2011, to discuss separating the Tule Wind and ECO Substation Projects for the purposes of Section 106 review.

An additional letter for the ECO Substation Project was sent on March 25, 2011, inviting tribes to another Section 106 Consulting Party Meeting. This meeting was held on April 19, 2011, to discuss the Section 106 process to date. The ECO Substation Project was also addressed at the formal government-to-government meetings held with the Campo Band of Mission Indians and the Manzanita Band of Kumeyaay Indians.

The consultation and discussions revealed concerns about the importance and sensitivity of cultural resources on and near the ECO Substation Project site, concerns about cumulative effects to cultural resources, and, further, that the tribal governments attach significance to the broader cultural landscape. As a result of the Native American consultation process the Jacumba Valley was identified as an area that has great cultural significance to local tribes. Many important cultural resources were identified in the project study area, and subsequently avoided in the Selected Alternative.



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As described in Section 3.2.2, the BLM also consulted with Native American tribes and interested tribal members on the development and execution of an MOA dated August 2012 for the ECO Substation Project, in accordance with 36 CFR 800.14(b). The project MOA includes a Historic Properties Treatment Plan and a Plan for Archaeological Monitoring, Post-Review Discovery and Unanticipated Effects. The MOA also include stipulations for the creation of Environmentally Sensitive Areas to protect archaeological sites during construction, and provisions for inadvertent discoveries and monitoring during construction. The MOA will implement actions identified in mitigation measures (see Appendix B to this ROD). The BLM recognizes the significance of the Jacumba Valley to the tribes and has developed, in consultation with the tribes, practicable measures to avoid, minimize, or mitigate the impacts of the Project on cultural resources in the Jacumba Valley. These measures include additional archaeological surveys and completion of a regional synthesis and landscape study to support regional efforts to define the Jacumba Discontiguous Archaeological District and National Register nomination. Based on the ongoing consultation with tribal governments and their representatives and the MOA, many cultural resources in the area are avoided by the Selected Alternative and unavoidable impacts are substantially reduced. The BLM recognizes that many tribes attach religious and cultural significance to the project area and the broader landscape, and it also recognizes that the project being approved will be an adverse effect. However, as with all cultural or historical resources, the identification of historic properties and the potential effects of an undertaking are one fact that goes into the decision whether to approve the undertaking. As explained above, the BLM has determined that it has, in consultation with the tribes, identified all practicable measures to avoid, minimize, or mitigate the impacts of the project on cultural resources.

See FEIS/FEIR Section I.4.3, Native American Tribes, for a detailed description of the government-to-government consultation conducted by BLM.

#### **3.2.4 Bald and Golden Eagle Protection Act**

This act provides for the protection of bald and golden eagles by prohibiting, except under certain specified conditions, disturbance or harm to these species. Although project-related disturbance or harm to golden eagles is not anticipated due to the location of the project, in order to comply with the act, the applicant will develop an Avian Protection Plan prior to issuance of an NTP for the ECO Substation Project (see Mitigation Measure BIO-10b in the FEIS/FEIR). The Avian Protection Plan identifies steps the applicant will take to ensure impacts to bird species (including eagles) are mitigated to the extent possible, including but not limited to, avian reporting systems, mortality reduction measures, and avian enhancement options. The CPUC will be responsible for ensuring an Avian Protection Plan has been developed for the ECO Substation Project. Since no aboveground components of the 138 kV transmission line will be constructed within BLM-managed lands, the BLM is not adopting Mitigation Measure BIO-10b and has no oversight responsibility of the Avian Protection Plan.

#### **3.2.5 Clean Water Act**

The ACOE has jurisdiction to protect the aquatic ecosystem, including water quality and wetland resources under Section 404 of the CWA. Implementing regulations by the ACOE are found at 33 CFR 320–330. Guidelines for implementation are referred to as the “Section 404(b)(1)



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Guidelines” and were developed by the EPA in conjunction with the ACOE (40 CFR 230). Under that authority, ACOE regulates the discharge of dredged or fill material into waters of the United States, including wetlands, by reviewing proposals to determine whether they may impact such resources and, thereby, are subject to Section 404’s permit requirement. The ACOE may grant authorization under either an individual permit or a nationwide permit to address operations that may affect the ephemeral washes on the project site. Throughout the environmental review process for the ECO Substation Project, the BLM has provided information to the ACOE to assist the agency in making a determination regarding its jurisdiction and need for a Section 404 permit. ACOE determined that the ECO Substation Project would result in approximately 0.4 acre of temporary impact and 0.9 acre of permanent impact to ACOE-jurisdiction resources subject to its Section 404 jurisdiction. All plans and compensatory lands associated with the 404 permit process will be made available prior to construction of the applicable project phase that would impact resources regulated under the 404 permit. No impacts to waters will result until habitat mitigation has been obtained by SDG&E. SDG&E is working closely with ACOE and submitted the Section 404 permit application to ACOE on December 16, 2010, and a revised permit application (the pre-construction notification package) was submitted to ACOE on November 11, 2011. SDG&E will be responsible for complying with all permit conditions identified in the 404 permit.

### **3.2.6 Clean Air Act Section 309**

Section 309 of the Clean Air Act requires the EPA to review and comment in writing on all federal actions affecting the quality of the environment (i.e., other federal agency EISs) (42 U.S.C. 7609). In accordance with BLM’s Instruction Memorandum 2012-003, BLM included the EPA in the EIS process for the ECO Substation Project. EPA received the Notice of Intent (NOI) in December 2009 and provided written comments on the Proposed Action and the EIS/EIR preparation during the scoping process, as well as written comments during the review period for the Draft (DEIS/DEIR) that occurred December 2010 through March 2011. In March 2010, a comprehensive Scoping Report was published summarizing concerns received from various agencies and the public. Comments received during the scoping process were addressed in the DEIS/DEIR. In addition, BLM prepared responses to EPA’s DEIS/DEIR public review comments that are included in Volume 3 of the FEIS/FEIR (response to comment letter A5). See FEIS/FEIR Section I, Public Participation, for a detailed description of the public participation process.

### **3.2.7 United States Department of Defense**

BLM coordinates with the Department of Defense prior to approval of ROWs for renewable energy, utility, and communication facilities to ensure that these facilities would not interfere with military training routes. As discussed in the Section B of the FEIS/FEIR, helicopters would be used for line work, particularly while installing new structures and stringing the new conductor, which would temporarily increase air traffic and encroach on navigable air space during construction. SDG&E (or its contractor) would coordinate flight patterns with local air traffic control, the Federal Aviation Administration, and the Department of Defense prior to construction or maintenance activities to prevent any potential safety issues (see Appendix C, Adopted Mitigation Measures, Mitigation Measure TRA-3).



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### **3.2.8 Coordination with Other Federal, Tribal, State, Regional, and Local Agencies**

This section lists other federal, state, regional, and local agencies with which the BLM and/or the applicant have consulted as part of project planning, scoping, and public review of the DEIS/DEIR. Those agencies include, but may not be limited to, CDFG, State Water Resources Control Board (SWRCB)/RWQCB, and CPUC. The applicant may also have to obtain permits or other authorizations from other agencies or comply with requirements of other agencies that did not provide written input during the NEPA process.

#### **3.2.8.1 California Department of Fish and Game**

The CDFG protects fish and aquatic habitats within the State of California through regulation of modifications to streambeds under Section 1602 of the California Fish and Game Code. CDFG regulates activities that could divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake in California that the agency has designated as one that is used by or provides benefit to a fish or wildlife resource. CDFG also evaluates potential impacts to vegetation and wildlife resulting from disturbances to waterways during its permitting process. The BLM and the applicant provided information to CDFG to assist the agency in its determination of the impacts to streambeds, and its identification of permit and mitigation requirements. The applicant submitted a Notification of Lake or Streambed Alteration with the CDFG South Coast Region on November 4, 2011. Compliance with the requirements of this agreement was identified in the FEIS/FEIR and will be adopted as a mitigation measure (see Mitigation Measure BIO-2a in Appendix C to this ROD).

#### **3.2.8.2 State Water Resources Board/Regional Water Quality Control Board**

The SWRCB works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. The RWQCBs have authority to protect surface water and groundwater under their jurisdiction. Throughout the NEPA process, the BLM and the applicant have invited the SWRCB and the Colorado River Basin RWQCB to participate in public scoping and workshops and have provided information to assist the agency in evaluating the potential impacts and permitting requirements of the project. The ACOE determined that the project site contains ACOE-jurisdictional resources and CWA Section 401 Water Quality Certification from the SWRCB/RWQCB will be required. SDG&E submitted the permit application to the Colorado River Basin RWQCB on November 8, 2011, and the permit is in process.

#### **3.2.8.3 California Public Utilities Commission**

The CPUC is the co-lead agency and is responsible for CEQA compliance during the preparation of the EIS/EIR for the ECO Substation, Tule Wind, and ESJ Gen-Tie Projects, which included the ECO Substation analyzed as a project component in the FEIS/FEIR. The BLM and CPUC signed an MOU in December 2009 agreeing to prepare a joint NEPA/CEQA document for the project. The CPUC will use the ECO Substation, Tule Wind, and ESJ Gen-Tie Project EIS/EIR to comply with the environmental review requirements under CEQA necessitated by SDG&E's submittal of an application for a Permit to Construct the ECO Substation Project. SDG&E submitted its application to the CPUC on August 10, 2009.



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### 3.3 Land Use Plan Conformance

Approval of the Proposed Action is in conformance with the Eastern San Diego County RMP, the applicable land use plan for public lands on which a 0.8-mile discontinuous segment of the proposed 138 kV transmission line would operate. The FEIS/FEIR analyzed components of the Proposed Action located on public lands for consistency with the relevant policies of the RMP and determined that project components were consistent with the identified policies. In addition, in the Eastern San Diego County RMP, the BLM identifies a utility corridor in the planning area and prefers that major new utility ROWs be located within the designated utility corridor (segments of the 138 kV transmission line would be located on lands within the designated corridor). Therefore, approval of components of the Proposed Action located on public lands would be in conformance with the applicable land use plan.

### 4. Alternatives (40 CFR 1505.2(b))

The Selected Alternative was chosen from among the applicant-proposed ECO Substation Project (the Proposed Action) and 21 alternatives, including 15 alternative substation sites/transmission line alignments and 6 design alternatives. In addition, alternative methods of generating electricity, including energy efficiency, distributed generation, and nuclear energy were evaluated. Four of the 21 ECO Substation Project alternatives were carried forward for more detailed review; the remaining alternatives were considered but eliminated from detailed analysis. The DEIS/DEIR analyzed the following configuration and design alternatives for the ECO Substation Project, in addition to the Proposed Action and the two No Action Alternatives:

- ECO Substation Site Alternative
- ECO Partial Underground 138 kV Transmission Route Alternative
- ECO Highway 80 138 kV Transmission Route Alternative
- ECO Highway 80 Underground 138 kV Transmission Route Alternative.

The environmental analysis for the ECO Substation Project alternatives results in the identification of the overall environmentally preferable alternative for the 138 kV transmission line as the ECO Partial Underground 138 kV Transmission Route Alternative. The Selected Alternative would reroute the proposed overhead transmission line between milepost 0.3 and 2.4 to be installed underground along Old Highway 80 and Carrizo Gorge Road, where it would then reconnect with the proposed overhead transmission line. Approximately 0.8 mile (three discontinuous segments measuring approximately 1,263 feet, 257 feet, and 2,693 feet in length) of this alternative alignment would be located on BLM-managed lands.

The Selected Alternative reduces permanent impacts because the alternative alignment area has been previously disturbed and, due to adjacency to Old Highway 80, would have reduced access requirements. While this alternative would increase short-term construction impacts due to increased trenching for undergrounding the 138 kV transmission line, it would reduce long-term visual resource, land use, and cultural resource impacts.



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## 4.1 Alternatives Fully Analyzed

The Proposed Action and six alternatives were fully analyzed in the FEIS/FEIR. These consisted of five action alternatives (the Proposed Action, the ECO Substation Site Alternative, the ECO Partial Underground 138 kV Transmission Route Alternative, the ECO Highway 80 138 kV Transmission Route Alternative, and the ECO Highway 80 Underground 138 kV Transmission Route Alternative) and two No Action Alternatives (No Project Alternative 1 (No ECO Substation, Tule Wind, ESJ Gen-Tie, Campo, Manzanita, or Jordan wind energy projects) and No Project Alternative 2 (No ECO Substation Project)). With the exception of the No Action Alternatives, each of the fully analyzed alternatives would develop new energy infrastructure on public lands, which would transmit renewable and non-renewable energy generated in the project area and would therefore contribute to the BLM's goal for increased renewable energy development on public lands as established by the Energy Policy Act of 2005. The Proposed Action is described in detail below and the six fully analyzed action alternatives are summarized in Section 4.1.2.

### 4.1.1 Proposed Action

The Proposed Action would provide an interconnection hub for renewable generation along SDG&E's existing SWPL 500 kV transmission line. Within this area, approximately 110 acres would be permanently disturbed by construction and operation of project facilities. The proposed site is located in southeastern San Diego County, approximately 70 miles east of downtown San Diego, south of I-8 and in the vicinity of the unincorporated communities of Boulevard and Jacumba, California (see Figure 1 of this ROD). The Proposed Action consists of a new 500/230/138 kV electrical substation (the ECO Substation), loop-in of the existing SWPL to the ECO Substation, a new 13.3-mile 138 kV overhead transmission line running between the proposed ECO Substation and the rebuilt Boulevard Substation (the Proposed Action involves a rebuild/enlargement of the existing Boulevard Substation). A 1.5-mile segment of the proposed 13.3-mile 138 kV overhead transmission line would be located on BLM-administered public lands; all other project components would be located on private lands and would be under the land use jurisdiction of the CPUC. The total permanent disturbance on BLM-administered public lands would be approximately 2.06 acres.

### 4.1.2 Fully Analyzed Alternatives in the FEIS/FEIR

Each of the fully analyzed alternatives would include a new 500/230/138 kV electrical substation, loop-in of the existing SWPL to the ECO Substation, a new 138 kV transmission line running between the proposed ECO Substation, and the rebuilt Boulevard Substation. Each of these alternatives would transmit power from the ECO Substation to the rebuilt Boulevard Substation and would require similar infrastructure as the Proposed Action; however, the specific location and alignment of several key project components would differ. The ECO Substation Site Alternative would construct the ECO Substation 700 feet east of the proposed site and this shift would result in alterations to the proposed substation pad and SWPL Loop-In configuration and would also increase the length of the 138 kV transmission and 12 kV distribution lines. The ECO Partial Underground 138 kV Transmission Route Alternative (the Selected Alternative) would essentially be the same as that described in Section 4.1.1 for the Proposed Action, with the exception that a 2.1-mile segment of the proposed transmission line between milepost 0.3 and



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2.4 and an approximate 4-mile-long portion of the proposed transmission line between milepost 9 and the rebuilt Boulevard Substation would be installed underground and where possible, within existing roadways rather than overhead on transmission line poles. Similarly, the ECO Highway 80 138 kV Transmission Route Alternatives would feature similar components as the Proposed Action with the exception that a segment of the transmission line from approximate milepost 5.8 to the rebuilt Boulevard Substation would be rerouted and installed overhead (or underground) north along Old Highway 80 (both of the Highway 80 alternatives would decrease the overall length of the transmission line). These alternatives are described in more detail in Section C of the FEIS/FEIR.

NEPA Section 102(2)(E) directs federal agencies to develop alternatives when there are unresolved conflicts concerning alternative uses of available resources (42 U.S.C. 4342(2)(E)). The purpose of consideration of the fully analyzed alternatives is to determine reasonable ways minimize or avoid impacts of the Proposed Action while still meeting the BLM's purpose and need. Shifting the proposed substation site 700 feet to the east (ECO Substation Site Alternative) would reduce permanent impacts to cultural resources. Rerouting and underground of the proposed 138 kV transmission line (ECO Partial Underground 138 kV Transmission Route Alternative) would reduce visual resource, land use, and cultural resources impacts. Also, rerouting the transmission line north along Old Highway 80 near proposed milepost 5.8 to the rebuilt Boulevard Substation (ECO Highway 80 138 kV Transmission Route Alternative) reduces indirect impacts due to a shorter overall transmission line and reduces land use impacts by utilizing an existing ROW. Lastly, rerouting the transmission line north along Old Highway 80 near milepost 5.8 and installing the transmission line underground from this point to the rebuilt Boulevard Substation (ECO Highway 80 Underground 138 kV Transmission Route Alternative) reduces indirect impacts due to a shorter overall transmission line, reduces land use impacts by utilizing an existing ROW, and reduces long-term visual impacts.

#### **4.1.3 No Project Alternative 1 – No ECO Substation, Tule Wind, ESJ Gen-Tie, Campo, Manzanita or Jordan Wind Energy Projects**

With the No Project Alternative 1, the ECO Substation Project (and the Tule Wind and ESJ Gen-Tie, Campo, Manzanita, and Jordan Wind Energy Projects) would not be approved, and no ROW grants would be issued to the ECO Substation Project (and Tule Wind Project) applicants.

#### **4.1.4 No Project Alternative 2 – No ECO Substation Project**

Under this alternative, the ECO Substation Project would not be approved and a ROW grant for the 138 kV transmission line would not be issued to the applicant.

### **4.2 Alternatives Not Fully Analyzed**

Alternative substation sites/transmission route alignments, system configurations, and methods were considered as alternatives to the Proposed Action but not carried forward for detailed analysis. Such alternatives are identified, and the rationale for elimination from detailed analysis is discussed in FEIS/FEIR Section C, Alternatives, and summarized below.

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#### **4.2.1 Alternative Substation Sites/Transmission Line Alternatives**

The 11 substation site/transmission line alternatives identified below would not avoid or substantially reduce the adverse impacts of the project or meet the project objectives or would not satisfy the purpose and need for the project. Accordingly, the following site alternatives were not analyzed in complete detail in the FEIS/FEIR:

1. ECO Substation Alternative Site 1—South of the Proposed ECO Substation Site
2. ECO Substation Alternative Site 2—West of the Proposed ECO Substation Site
3. ECO Substation Alternative Location 3—Ketchum Ranch Site
4. ECO Substation Alternative Location 4—Jacumba Site
5. ECO Substation Alternative Location 5—South of Boulevard Site
6. ECO Substation Alternative Site 6—West of Boulevard Site
7. ECO Substation Alternative Site 7—East of Campo Site
8. ECO Substation Alternative Site 8—Campo Site
9. ECO Alternative Boulevard Substation Site
10. ECO Jacumba 138 kV Route Segment Alternative
11. ECO Jewel Valley Road 138 kV Route Alternative.

#### **4.2.2 System Alternatives**

The six system alternatives identified would not avoid or substantially reduce the adverse impacts of the project or meet the project objectives or would not satisfy the purpose and need for the project. Accordingly, the following site alternatives were not analyzed in complete detail in the FEIS/FEIR:

1. ECO System Alternative 1 – Elimination of 138 kV Transmission Line
2. ECO System Alternative 2 – Elimination of 138 kV Transmission Line and Rebuild TL6931 (Boulevard to Crestwood Substation) and TL629E (Crestwood Substation to Cameron Tap)
3. ECO System Alternative 3 – Build a New 230 kV Switchyard and Extend a 230 kV Line from the Imperial Valley Substation
4. ECO System Alternative 4 – Connect to the Sunrise Powerlink
5. ECO System Alternative 5 – Eliminate 230 kV Yard at the ECO Substation



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6. ECO System Alternative 6 – Use Existing CFE 230 kV Line Located in Northern Mexico and Path 45 to Transmit ESJ Energy, Upgrade East County 69 kV Distribution System and Microgrid Enforcement

#### 4.2.3 Alternative Methods of Generating Electricity

The following alternative methods of generating or conserving electricity were considered as potential alternatives to the Proposed Action:

1. Distributed Generation—Rooftop Solar Panels and Other Alternative Fuel Supplies
2. Energy Efficiency
3. Nuclear Energy.

While distributed generation would result in a significant net reduction in project impacts as compared with the Proposed Action and would contribute directly to meeting state and federal renewable energy resource goals, this alternative would not meet BLM's purpose and need to respond to the FLPMA ROW application submitted by SDG&E to construct, operate, maintain, and terminate a segment of a 138 kV transmission line on public lands managed by the BLM in compliance with FLPMA. The 138 kV transmission line would deliver electricity generated by planned renewable energy development in the project region and the BLM is compelled to evaluate utility-scale renewable energy development rather than distributed generation by the applicable federal orders and mandates. The Energy Policy Act of 2005 (Public Law 109-58) requires the Secretary of the Interior to seek to approve non-hydropower renewable energy projects on public lands, with a generation capacity of at least 10,000 megawatts (MW) of electricity by 2015; this level of renewable energy generation cannot be achieved on that timetable through distributed generation systems. Accordingly, the BLM's purpose and need for DOI action is focused on the siting and management of utility-scale renewable energy development on public lands. Furthermore, BLM has no authority or influence over the installation of distributed generation systems, other than on its own facilities, which the BLM is evaluating at individual sites through other initiatives.

Also, distributed generation only partially solves the issue of reliability in the Boulevard and Jacumba communities; therefore, this alternative would not address the southeastern energy transmission system servicing the Boulevard, Jacumba, and other surrounding communities, which under this alternative would remain unstable.

The energy efficiency alternative would reduce demand; however, it would not reduce demand sufficiently to meet most of the project objectives and the need to develop renewable energy sources. Additionally, this alternative would not improve the reliability of power delivery to the communities of Boulevard, Jacumba, and the surrounding communities. Therefore, because this alternative would not meet most project objectives and is not consistent with the purpose and need set forth in FEIS/FEIR Section A, it was determined not to meet the alternatives screening criteria described in Section C.2 of the FEIS/FEIR and was eliminated from further consideration as a reasonable alternative in the FEIS/FEIR.



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The nuclear energy alternative would not contribute to meeting renewable energy resource goals established by the federal government and would not meet BLMs purpose and need to respond to the FLPMA ROW application submitted by SDG&E to construct, operate, maintain, and terminate a segment of a 138 kV transmission line that would transmit generated renewable energy on public lands managed by the BLM in compliance with FLPMA. Additionally, the nuclear energy alternative does not meet feasibility criteria as permitting of new nuclear facilities in California is not currently allowable by law. Therefore, it was determined that this alternative does not meet the alternatives screening criteria and it was eliminated from further consideration as a reasonable alternative in the FEIS/FEIR.

### **4.3 Environmentally Preferable Alternative**

The environmentally preferable alternative would be the No ECO Substation Project Alternative, which would result in denial of the project. All environmental consequences associated with the construction, operation, maintenance, and termination of the Proposed Action would be eliminated and existing environmental conditions would be unaffected. Without the ECO Substation Project, there would not be an interconnection hub that would enable renewable generation such as the ESJ Gen-Tie or Tule Wind Projects to connect to the grid. Additionally, energy transmission would remain unreliable in the Boulevard, Jacumba, and surrounding communities. Planned generation facilities in the project area would require additional miles of transmission line to reach an interconnection point and possibly multiple connection points on SDG&E's existing transmission system. In addition, new substations to be constructed by each generator might be required to connect the generation facilities to the grid.

### **4.4 Agency Preferred Alternative / Selected Alternative**

BLM's Preferred/Selected Alternative for the ECO Substation Project 138 kV Transmission Line is the ECO Partial Underground 138 kV Transmission Route Alternative, which includes 0.8 mile of underground transmission line located on BLM-managed lands. This ROD addresses the 0.8-mile segment of underground transmission line that is proposed on BLM-administered public lands; all other project components would be located on private lands and are not under the jurisdiction of the BLM.

## **5. Public Involvement**

### **5.1 Scoping**

The CPUC and BLM solicited internal and external input on the issues, impacts, and potential alternatives to be addressed for the Proposed Action, as well as the extent to which those issues and impacts would be analyzed in the EIS/EIR document. This process is called "scoping" (40 CFR 1501.7). Internal input was provided by CPUC, BLM, and cooperating agency staff, as an interdisciplinary process, to help define issues, alternatives, and data needs. External scoping involved notification and opportunities for feedback from other agencies, organizations, tribes, local governments, and the public. Formal public scoping begins following publication of an NOI to prepare an EIS for a proposed action.



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The NOI for the Proposed Action (including the ECO Substation Project) was published in the Federal Register on December 29, 2009 (74 FR 68860–68861). BLM issued a press release regarding the NOI on December 29, 2009. Copies of the NOI were made available at the BLM’s California Desert District office in Moreno Valley and at the BLM’s California State Office in Sacramento. Publication of the NOI began a 45-day public comment period, which ended on February 12, 2010. CPUC also provided a website with information about the project that described the various methods of providing input on the project, including an email address where comments could be sent electronically (ecosub@dudek.com). The website is: (<http://www.cpuc.ca.gov/environment/info/dudek/ecosub/ecosub.htm>). Sixty-nine comment letters were received within the 45-day NOI comment period.

On January 27 and 28, 2010, the CPUC and BLM held scoping meetings at the Jacumba Highland Center and Boulevard Volunteer Fire Department to gather comments from the public regarding the scope of the EIS/EIR, as well as project alternatives and possible mitigation. Prior to the meetings, a Notice of Public Scoping Meeting was mailed to federal, state, regional, and local agencies, elected officials of areas affected by the Proposed Action, and the general public. Approximately 70 and 100 attendees (respectively) were documented by signing in on a voluntary sign-in sheet at the meetings. Of those in attendance, a total of 37 members of the public spoke.

In March 2010, a scoping report was released for public review summarizing concerns raised during the public scoping meetings and summarizing comments received on the project during the scoping period. In addition to comments received at the public scoping meetings, BLM received 69 comment letters: 26 from federal, state, and local agencies and organizations; 35 from individuals; 1 from the Campo Band of Mission Indians; and 7 late letters. Six general categories of comments were received:

- Comments related to the project description
- Human environment issues, including the following key issues:
  - Visual and aesthetic impacts of aboveground transmission lines
  - Increased risk of wildfire hazards due to the introduction of new transmission lines, substations, and transformers
  - Direct and indirect impacts on the recreational uses and to wilderness and environmentally sensitive areas in the project vicinity
  - Increased public access resulting in increased fire danger, invasive species distribution, vandalism, and disruption of habitat in remote natural resource areas
  - Conflict with the rural community character and the designated recreational and wilderness land uses in the project area
  - Construction and operations noise due to: (1) helicopter noise during construction and maintenance activities, (2) emergency generators, and (3) noise and vibration effects of required blasting



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- Potential health effects associated with electric and magnetic fields (EMFs) and potential public safety concerns due to the use of hazardous materials during construction and operation
  - Natural environment issues, or how the project would affect biological resources in the area
  - Indirect and cumulative impacts, including those of other proposed energy projects in the region, in addition to all past, present, and reasonably foreseeable projects or actions within the geographic range of the project area
  - EIS/EIR administrative and permitting issues.

## 5.2 Draft EIS/EIR Public Comment Period

The EPA published an NOA for public and agency review and comment of the ECO Substation, Tule Wind, and ESJ Gen-Tie Project DEIS/DEIR on December 23, 2010, in the Federal Register (75 FR 80807). The NOA was also published in several regional newspapers including the *San Diego Union Tribune* (on December 24, 2010) and *Back Country Messenger* (in the January 2011 monthly edition). The original 54-day comment period was extended from February 16, 2011, to March 4, 2011—an additional 16 days, for a total of 70 days. Approximately 240 comment letters were received during this period. A number of the comments received on the DEIS/DEIR discussed the similar issues or environmental concerns as those raised during the scoping process, including, among others, issues related to the project description, project alternatives, human environment issues, natural environment issues, and cumulative impacts of the project. Additional human environment issues raised during DEIS/DEIR review included low-frequency noise, shadow flicker (due to turbines associated with the Tule Wind Project), “dirty” electricity, health concerns associated primarily with the operation of the wind turbines, as well as loss of property values. Additional natural environment issues raised during the public comment period included biological resources, particularly with regard to the golden eagle and condors, bats, Quino checkerspot butterfly, big horn sheep, and wildlife corridors. Comments were also raised regarding water quantity and quality, visual impacts, and climate change. Further, commenters raised concerns regarding sacred cultural, historic, religious, and archaeological Kumeyaay ancestral sites within the project area and the Section 106 consultation process. All public comments on the DEIS/DEIR were considered and addressed in the FEIS/FEIR. Responses to comments are provided in Volume 3 of the FEIS/FEIR and comments received are contained within Volume 4 of the FEIS/FEIR. Recurring comments on the DEIS/DEIR are addressed through common responses that are provided in Section 2.0 of Volume 3 of the FEIS/FEIR.

## 6. Errata Items

The purpose of these errata is to correct factual inaccuracies or typographical errors in the FEIS/FEIR for the ECO Substation Project. The POD will govern in the event of any factual discrepancies between it and the FEIS/FEIR. To the extent that the clarifications below affect the project description, the POD will incorporate these clarifications. To the extent that such clarifications affect a mitigation measure, Appendix C of this ROD contains the final language.



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Section D.3, Figures D.3-19C through D.3-19H, were omitted from the FEIS/FEIR. These figures are incorporated in Section D.3 on the CPUC FEIS/FEIR website:  
[http://www.cpuc.ca.gov/environment/info/dudek/ecosub/Final\\_EIR/D.3\\_Visual\\_Resources.pdf](http://www.cpuc.ca.gov/environment/info/dudek/ecosub/Final_EIR/D.3_Visual_Resources.pdf).

In Section D.7, Cultural and Paleontological Resources (Subsection D.7.1.2, page D.7-20, Records Search and Survey Results, 138 kV Transmission Line) the statement “the Proposed Project has been realigned to avoid archaeological concentrations, features, and potential deposits in buffer zone areas, wherever possible” was made but did not include a reference that would indicate that the claim was factually based. The statement was made in a letter report prepared by ASM Affiliates, Inc. (and submitted to the BLM) titled “Preliminary Eligibility Requirements for Cultural Resources in SDG&E’s Proposed East County (ECO) Substation Project” and dated August 5, 2011. In Section D.7, Cultural and Paleontological Resources (Subsection D.7.3.3, page D.7-77 under Impact CUL-1, ECO Substation Project), the presence of cultural sites along the proposed reroute of the 138 kV transmission line along Old Highway 80 and Carrizo Gorge Road was not discussed as this reroute was associated with an alternative project component. ASM Affiliates Inc. subsequently surveyed the reroute area and identified five previously recorded sites (one which could not be re-identified), 20 new sites, and 25 isolates.

Section D.7, Cultural and Paleontological Resources, Subsection D.7.8, page D.7-133, Table D.7-15, Mitigation Measure CUL-1A was clarified as follows:

As part of the HPTP-CRMP, recorded cultural resources that can be avoided shall be listed and demarcated during construction as Environmentally Sensitive Areas (ESAs). All recommended NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 100 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained on SDG&E-owned property, easements, or ROW to protect ESAs from inadvertent trespass for the duration of construction in the vicinity (the ESA fencing should demarcate the limits of the construction areas and where people have to stay within the easement, ROW, or SDG&E owned property). An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESA.

Section D.7, Cultural and Paleontological Resources, subsection D.7.8, page D.7-136, Table D.7-15, Mitigation Measure CUL-1D has been clarified as follows:

Since significant portions of the project site contain sedimentary deposits that have the potential to contain buried cultural resources, then full-time cultural resources monitoring shall be implemented during all phases of ground-disturbing work in these areas. If ESA fencing has been established and the possibility

+ of buried cultural deposits is determined to be low after initial ground-disturbance, the on-site professional archaeologist may determine that full-time monitoring is no longer required in that area.

In Section D.7, Cultural and Paleontological Resources, Subsection D.7.3.3, page D.7-99 under Impact PALEO-1 (ECO Substation Project), APM ECO-CUL-11 was not identified as mitigation provided for Impact PALEO-1 however, since APM ECO-CUL-11 identifies



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procedures to follow in the event that fossils are encountered during construction, the measure is applicable and is appropriate for inclusion when discussing measures provided to mitigate Impact PALEO-1.

In Section D.15, Fire and Fuels Management, page D.15-46, Mitigation Measure FF-1 has been clarified to state that lead agencies (and not commenting agencies) would approve the final Construction Fire Prevention/Protection Plan prior to the initiation of construction activities.

Section D.15, Fire and Fuels Management, page D.15-110, Table D.15-8, Mitigation Measure FF-3 was clarified as follows:

Provide assistance to SDRFPD and SDCFA to improve the response and firefighting effectiveness near electrical substations, transmission lines, and aerial infrastructure based on project risk and fire protection needs. Assistance by SDG&E shall include providing funding for one SDCFA Fire Code Specialist II position to enforce existing fire code requirements, including but not limited to implementing required fuel management requirements (e.g., defensible space), in priority areas to be identified by the SDCFA for the life of the project. All fuel management activities shall be in accordance with CEQA Guidelines Section 15304 (I), which indicates that the minor land alternation activities will not have a significant effect on the environment, as the activities will not result in the taking of endangered, rare, or threatened plant or animal species or significant erosion and sedimentation of surface waters. In addition, SDG&E is to provide funding to allow SDCFA to employ up to four volunteer/reserve firefighters as part-time code inspectors on a stipend basis for up to 90 days per year for the life of the project. The funding for the SDCFA Fire Code Specialist II position and the four volunteer/reserve firefighters as part-time code inspectors will be provided through proportional contributions, to be determined by CPUC and BLM, from SDG&E (and the other applicants) to the SDCFA prior to construction.

A fixed annual fire mitigation fee of approximately \$116,600 will be provided by SDG&E to SDRFPD for mitigation funding. The funding will be utilized to assist with the purchase and maintenance of a Type I engine with an aqueous film forming foam (AFF) apparatus with a deck gun to apply a heavy stream. In addition, the funding will be utilized to provide for a third volunteer stipend to staff the engine with firefighters and training for electrical firefighting for 10 personnel (2 per year on a 5-year rotation). The fire mitigation fee will be paid annually during the life of the project and terminated upon decommissioning of the substation and related facilities.

In Section D.15, Fire and Fuels Management, page D.15-111, Table D.15-8, the last paragraph of Mitigation Measure FF-4 states that the Final FPP for the ECO Substation Project is to be approved by commenting agencies prior to initiation of construction. This sentence has been deleted from the measure as it is incorrect and conflicts with the first paragraph of the measure that correctly states that “the final FPP shall be approved by the CPUC prior to initiation of construction.”

In Section E, Figure E-1B has been updated with the correct alignment for the ECO Partial Underground 138 kV Transmission Route Alternative. The correct alignment depicts

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underground portions of the 138 kV transmission line along Old Highway 80 and Carrizo Gorge Road and the updated Figure E-1B is available on the CPUC FEIS/FEIR website:

[http://www.cpuc.ca.gov/environment/info/dudek/ecosub/Final\\_EIR/E\\_Comparison\\_of\\_Alternatives.pdf](http://www.cpuc.ca.gov/environment/info/dudek/ecosub/Final_EIR/E_Comparison_of_Alternatives.pdf). The Draft MOA included as Appendix 10 to the FEIS/FEIR was updated post-publication. The Final MOA is included as Appendix B to this ROD. The Draft MOA is included on the CPUC FEIS/FEIR website as Appendix 10: [http://www.cpuc.ca.gov/environment/info/dudek/ecosub/Final\\_EIR/Appx10\\_DraftMOAs.pdf](http://www.cpuc.ca.gov/environment/info/dudek/ecosub/Final_EIR/Appx10_DraftMOAs.pdf).

Section I, Public Participation (page I-10, Section I.3.3, After Final EIR/EIS Completion), the statement: “For NEPA, following a 30-day Protest Period and concurrent 30-day Governor’s Review...” is in error. On October 25, 2011, the BLM clarified the Tule Wind Project public process in a news release. The ECO Substation Project does not amend BLM’s Eastern San Diego County RMP, as the Project is in conformance with the RMP. Therefore, a 30-day protest period and concurrent 30-day Governor’s Consistency Review upon release of the FEIS/FEIR is not appropriate. The news release was published on the CPUC website:


<http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/BLMNewsRelease.pdf>.



**7. Final Agency Action****7.1 Right-of-Way Authorization**

It is my decision to approve a transmission line right-of-way lease/grant to SDG&E subject to the terms, conditions, stipulations, plan of development, and environmental protection measures developed by the Department of the Interior and reflected in this Record of Decision. This decision is effective on the date this Record of Decision is signed.

Approved by:

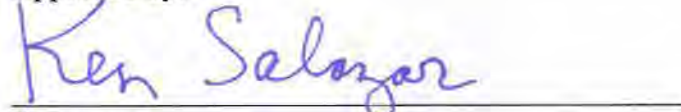
  
\_\_\_\_\_  
Mike Pool  
Acting Director  
Bureau of Land Management

Date

  
\_\_\_\_\_  
Date**7.2 Secretarial Approval**

I hereby approve these decisions. My approval of these decisions constitutes the final decision of the Department of the Interior and, in accordance with the regulations at 43 CFR 4.410(a)(3), is not subject to appeal under departmental regulations at 43 CFR 4. Any challenge to these decisions, including the BLM Authorized Officer's issuance of the ROW as approved by this decision, must be brought in the Federal district court.

Approved by:

  
\_\_\_\_\_  
Secretary  
U.S. Department of the Interior

AUG 21 2012

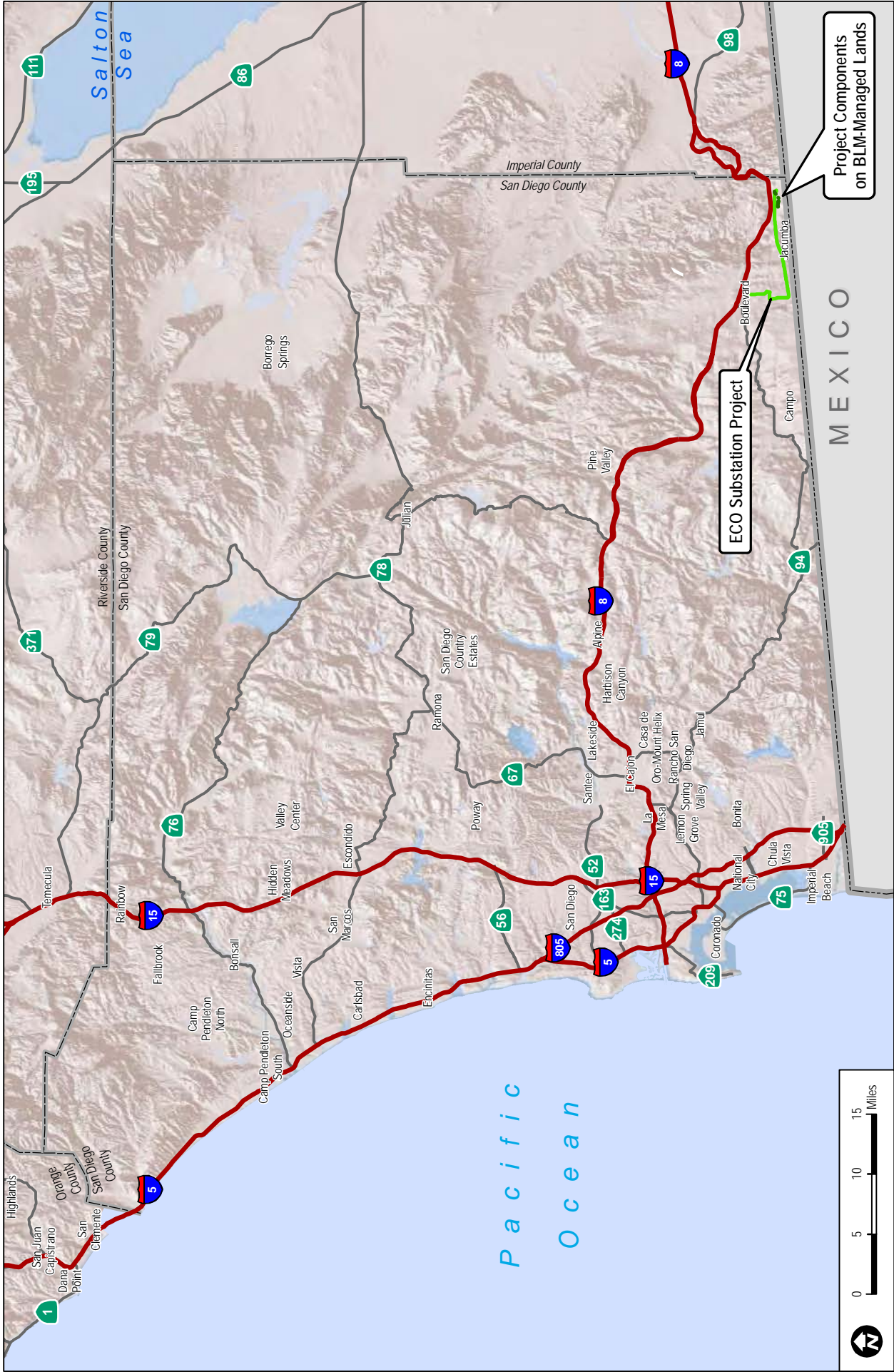
Date

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## ROD Figures







**FIGURE 1**  
**Regional Map**

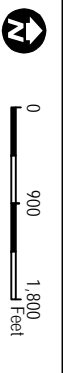
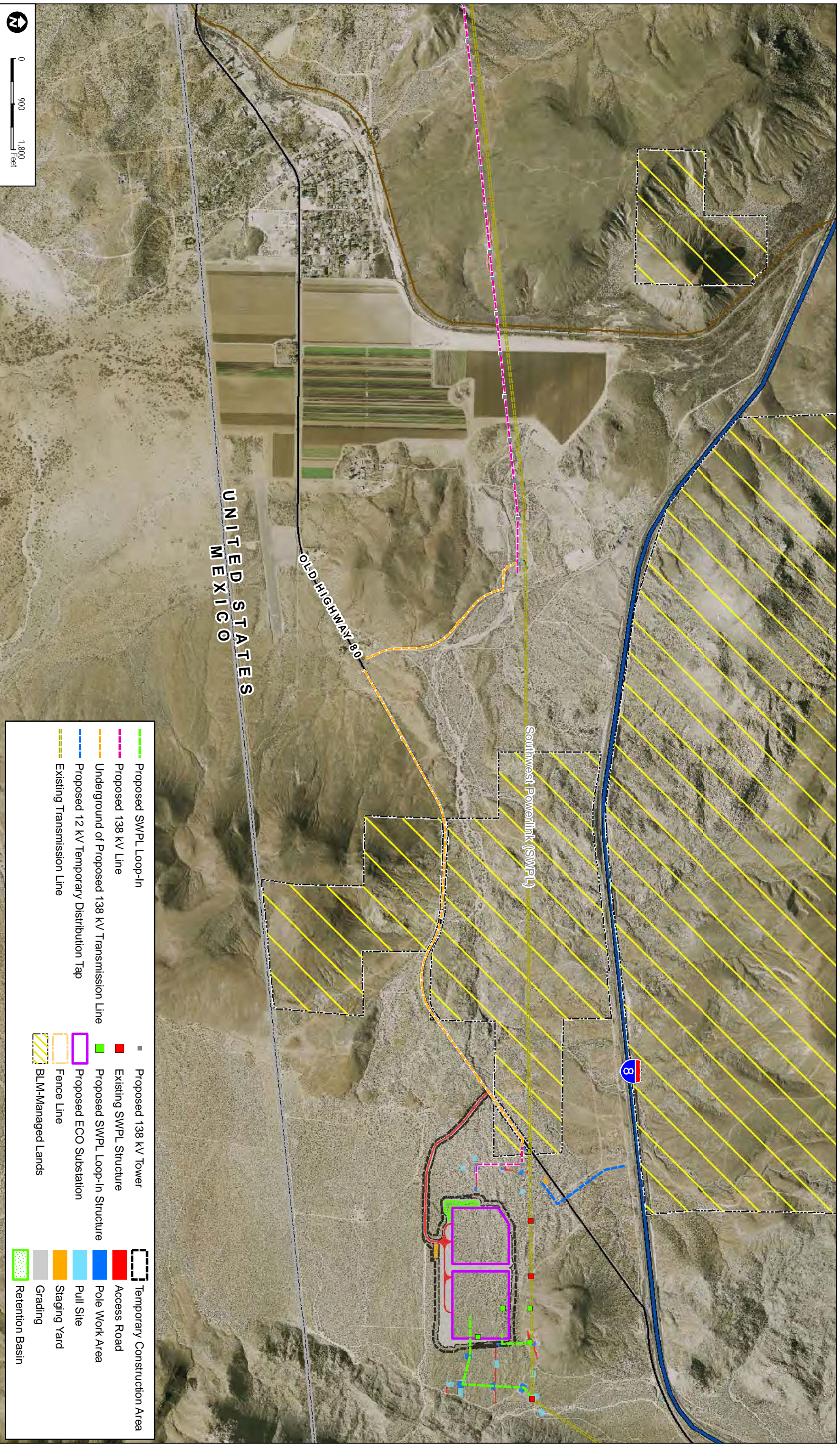
**DUDEK**

6168-01

ECO SUBSTATION PROJECT 138KV TRANSMISSION LINE - RECORD OF DECISION







**DUDEK**

6168-01

SOURCE: SDGE 2009, SDGE 2011, SanGIS 2010, DigitalGlobe 2008

ECO SUBSTATION PROJECT 138KV TRANSMISSION LINE - RECORD OF DECISION

- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li><span style="color: green;">---</span> Proposed SWPL Loop-In</li> <li><span style="color: magenta;">---</span> Proposed 138 kV Line</li> <li><span style="color: orange;">---</span> Underground of Proposed 138 kV Transmission Line</li> <li><span style="color: blue;">---</span> Proposed 12 kV Temporary Distribution Tap</li> <li><span style="color: yellow;">---</span> Existing Transmission Line</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: red;">■</span> Proposed 138 kV Tower</li> <li><span style="color: red;">■</span> Existing SWPL Structure</li> <li><span style="color: green;">■</span> Proposed SWPL Loop-In Structure</li> <li><span style="color: purple;">■</span> Proposed ECO Substation</li> <li><span style="border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Fence Line</li> <li><span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> BLM-Managed Lands</li> </ul> | <ul style="list-style-type: none"> <li><span style="border: 1px dashed black; display: inline-block; width: 10px; height: 10px;"></span> Temporary Construction Area</li> <li><span style="color: red;">---</span> Access Road</li> <li><span style="color: blue;">---</span> Pole Work Area</li> <li><span style="color: lightblue;">---</span> Pull Site</li> <li><span style="color: orange;">---</span> Staging Yard</li> <li><span style="color: gray;">---</span> Grading</li> <li><span style="background-color: green; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Retention Basin</li> </ul> |
|--|--|---|

**FIGURE 2**  
ECO Substation Project 138kV Transmission Line Selected Alternative







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## Appendices



# **APPENDIX A**

*Biological Opinion for the ECO Substation Project*





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
Carlsbad Fish and Wildlife Office  
6010 Hidden Valley Road, Suite 101  
Carlsbad, California 92011



In Reply Refer To:  
FWS-SD-10B0136-11F0122

SEP 01 2011

### Memorandum

To: District Manager, Bureau of Land Management, California Desert District Office  
Moreno Valley, California

From: Field Supervisor, Carlsbad Fish and Wildlife Office  
Carlsbad, California

Subject: Formal Section 7 Consultation for the Proposed East County Substation and  
Transmission Line Project, San Diego County, California

Attention: Teresa A. Raml

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion on the proposed issuance of a right-of-way (ROW) grant by your agency, the Bureau of Land Management (BLM), and a Clean Water Act section 404 permit ("CWA permit") by the U.S. Army Corps of Engineers (Corps) to facilitate construction of the East County Substation and Transmission Line Project ("ECO Substation Project") by the project proponent, San Diego Gas and Electric Company (SDG&E). This biological opinion addresses the potential effects of the ECO Substation Project on the federally endangered Quino checkerspot butterfly (*Euphydryas editha quino*, "Quino"), in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), and is based on information in our files, the biological assessment submitted by your agency, and coordination with the Corps. The complete project file addressing this consultation is maintained at the Carlsbad Fish and Wildlife Office (CFWO).

The implementing regulations for section 7(a)(2) of the Act (50 CFR § 402.07) allow for consultation responsibilities to be fulfilled through a lead Federal agency when an action involves more than one Federal agency. The BLM is the lead Federal action agency for the ECO Substation Project, and SDG&E is the designated non-Federal representative for the BLM (SDG&E 2010). This biological opinion fulfills the interagency consultation requirements of section 7 of the Act for the BLM and Corps.

SDG&E has committed that all maintenance activities associated with the ECO Substation Project will be conducted in accordance with SDG&E's low-effect habitat conservation plan (HCP) for Quino (SDG&E 2007). The status of the Quino and the effects of implementing



SDG&E's low-effect HCP were previously addressed in our biological opinion for the low-effect HCP dated January 16, 2008. In our 2008 biological opinion, we concluded that the level of anticipated take within SDG&E's HCP plan area boundary was not likely to result in jeopardy to the Quino. Given that SDG&E has committed to implement maintenance activities consistent with their low-effect HCP for Quino, we do not anticipate any adverse effects to Quino that were not previously evaluated in the biological opinion for the low-effect HCP. No incidental take of Quino beyond that anticipated in the biological opinion for the HCP will occur. Therefore, it is our conclusion that future maintenance activities associated with the ECO Substation Project will not result in jeopardy to Quino.

Incidental take coverage for substation and transmission line maintenance activities is already provided to SDG&E through the incidental take permit associated with its low-effect HCP. By this consultation, we are extending to BLM the take exemption for Quino (incorporated herein by reference) as provided in the incidental take statement of our biological opinion for SDG&E's low-effect HCP, dated January 16, 2008, for substation and transmission line maintenance activities. Extension of this take exemption to the BLM is limited to substation and transmission line maintenance activities associated with the ECO Substation Project. Thus, BLM's consultation obligations under the Act for issuance of a ROW grant that allows for maintenance activities associated with the ECO Substation Project have been met, and this biological opinion only addresses the potential impacts to Quino from construction of the ECO Substation and the associated substation upgrades and construction of transmission lines described below.

### **CONSULTATION HISTORY**

On September 8, 2010, we received the *San Diego Gas and Electric Company East County Substation Project Biological Assessment* (SDG&E 2010) (BA) and request for formal section 7 consultation from the BLM, and on October 1, 2010, we provided a response letter to the BLM documenting initiation of formal section 7 consultation for the ECO Substation Project.

On February 10, 2011, we received information from the BLM via electronic mail (email) regarding changes to the proposed action.

During late March and early April 2011, we had discussions with SDG&E to clarify the conservation strategy proposed to offset project impacts on Quino, and on April 19, 2011, SDG&E provided confirmation of agreed-upon language to address this issue.

On May 16, 2011, we provided a draft biological opinion for review and comment to the BLM and SDG&E. BLM provided a copy of the biological opinion to the Corps. Comments were provided by the BLM, including comments from the SDG&E and Corps, in a memorandum dated June 29, 2011, and received on July 11, 2011.

Comments from the BLM, Corps, and SDG&E were incorporated or addressed, as appropriate, into a revised draft biological opinion, which was provided to the BLM for additional review and

comment on August 29, 2011. BLM provided the revised draft to SDG&E. No further comments were received.

## **BIOLOGICAL OPINION**

### **PROPOSED ACTION**

The BLM proposes to issue a ROW grant to SDG&E for the construction of the ECO Substation Project, which includes construction of a new East County substation, rebuilding of the existing Boulevard Substation, looping in of the existing 500 kilovolt (kV) Southwest Powerlink (SWPL) transmission line into the new substation, and construction of a new approximately 13.5-mile-long 138 kV transmission line to connect the southeastern portion of San Diego County, California, near the Imperial County and Mexican borders (Figure 1). To facilitate project construction, SDG&E proposes to discharge fill material within Waters of the U.S., which will require authorization through the Corps in accordance with section 404 of the Clean Water Act.

#### *Conservation Measures*

1. Protocol surveys for Quino will occur within 2 years prior to the commencement of construction activities. The surveys that were conducted in the spring 2010 will be considered valid for construction in 2012 as long as construction commences before February 2012. If construction is not scheduled to commence before February 2012, SDG&E will contact the CFWO to discuss whether an additional survey is warranted.
2. Prior to the start of construction, the boundaries of Quino host plant populations will be delineated with clearly visible flagging and/or fencing. The flagging and/or fencing will be maintained for the duration of construction. These flagged and/or fenced areas will be avoided to the extent practicable during construction activities.
3. A biological monitor will be present during all ground-disturbing and vegetation removal activities. Immediately prior to initial ground-disturbing activities and/or vegetation removal, the biological monitor will survey the site to ensure that no sensitive species will be directly impacted.
4. Prior to construction, all SDG&E, contractor, and subcontractor project personnel will receive training regarding the appropriate work practices necessary to effectively implement the conservation measures and to comply with the applicable environmental laws and regulations, including appropriate wildlife avoidance; impact minimization procedures; the importance of these resources, and the purpose and necessity of protecting them; and methods for protecting sensitive ecological resources. The training will include best management practices to reduce the potential for erosion and sedimentation during construction of the project.

5. SDG&E will compensate for permanent impacts to occupied Quino habitat, defined as any suitable Quino habitat within 0.6 mile (1 kilometer) of a Quino sighting, at a 2:1 ratio. SDG&E will use reasonable efforts to purchase property within the Southeast San Diego Recovery Unit for Quino that contains suitable habitat for Quino. If properties within the Southeast San Diego Recovery Unit cannot be reasonably purchased due to unwilling private property sellers, then SDG&E will consult with the CFWO to determine alternative appropriate conservation. A plan detailing SDG&E's conservation commitments ("conservation plan") will be submitted to the CFWO for approval prior to construction of the project. In addition to identifying the location of the conservation property and its value to Quino, the conservation plan will identify:
  - The method for protecting the biological resource values in perpetuity (e.g., conservation easement);
  - The entity or organization proposed as owner and land manager of the acquired property; and
  - An endowment based on a Property Analysis Record (PAR; Center for Natural Lands Management © 1998) or similar estimation method to secure ongoing funding for the specific perpetual management, maintenance, and monitoring activities identified in the plan (i.e., access control, invasive species management, fencing and signage, etc.). The endowment will be managed as a long-term investment intended to 1) exist indefinitely and 2) fund necessary land management activities, to the extent practicable, solely from investment earnings and not from the initial endowment amount. To assure adequate funding for long-term implementation of the management activities as prescribed in the PAR, the endowment amount should be sufficient to generate the earnings necessary to periodically (i.e., annually) increase the endowment amount in accordance with a long-term inflation indicator (e.g., Consumer Price Index).
6. To prevent the spread of noxious weeds into native habitat, noxious weed infestations that are identified, by the biological monitor, and are located within the project area or along access roads to the project area will be hand treated or flagged and avoided according to the weed species present and project constraints.
7. All off-road equipment used for construction will be power washed before entering the project area to ensure that the equipment is free of soil, seeds, vegetative material, or other debris that could contain seeds of noxious weeds. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material, or other such debris. When construction will occur in known noxious weed infested areas, as identified by the biological monitor, equipment will be cleaned before moving to other sites that do not contain noxious weeds.
8. Traffic speeds on unpaved roads and the ROW will be limited to 15 miles per hour (mph) within occupied Quino habitat (Figures 1 and 2) during the flight season, which generally

includes 4 to 6 weeks between January and May, depending on weather conditions (Service 2003) (see [http://www.fws.gov/carlsbad/TEspecies/Quino\\_Monitor.htm](http://www.fws.gov/carlsbad/TEspecies/Quino_Monitor.htm)).

9. SDG&E will restore areas temporarily impacted by construction. SDG&E will develop and implement a restoration plan addressing seed mixes, application rates, and monitoring of the temporarily impacted sites that will be restored following the completion of construction. The restoration plan will be submitted to the CFWO for approval prior to construction of the project.
10. SDG&E will install gates at key access points to reduce the potential for the public to enter and disturb the project area. The locations where gates will be installed are depicted in Figure 3 of the BA (SDG&E 2010).
11. During work on the facilities, all trucks, tools, and equipment will be kept on existing access roads or cleared areas, to the extent possible.
12. SDG&E's Environmental Service Group will approve any activity prior to commencing such activity in sensitive areas where disturbance to Quino habitat may be unavoidable.
13. Wire stringing is allowed year-round in sensitive habitats if the conductor is prohibited from dragging on the ground or in brush and vehicles remain on existing access roads.

### *Action Area*

According to 50 CFR § 402.02 pursuant to section 7 of the Act, the "action area" means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area. For this consultation, the action area includes lands within the project footprint (i.e., ECO Substation footprint, transmission line footprint, Boulevard Substation footprint, and SWPL Loop-in area), including within 300 feet of the ROW centerline for the 13.5 mile-long transmission line, specific project components beyond 100 feet of the ROW centerline (e.g., construction yards and access roads), and the new 58-acre substation site with a buffer of 150 feet for construction activities. The project alignment is identified on Figure 1 to provide an overall depiction of the action area. Occupied Quino habitat within the action area is identified on Figure 2.

## STATUS OF THE SPECIES

### *Listing Status*

Quino was listed as endangered on January 16, 1997 (62 FR 2313). The *Recovery plan for the Quino checkerspot butterfly (Euphydryas editha quino)* ("Quino recovery plan") was approved on August 11, 2003 (Service 2003), and the Service completed a 5-year review for the subspecies on August 18, 2009 ("Quino 5-year review") (Service 2009).

*Species and Critical Habitat Description*

Quino is a recognized subspecies of Edith's checkerspot butterfly (*E. editha*) and is a member of the Nymphalidae family, the brush-footed butterflies. Quino differs from the other Edith's checkerspot subspecies in size, wing coloration, and larval and pupal phenotypes (Mattoni et al. 1997). Among the other subspecies of Edith's checkerspot, Quino is moderate in size with a wingspan of approximately 1.5 inches. The dorsal (top) side of its wings is covered with a red, black, and cream colored checkered pattern, and the ventral (bottom) side is mottled with tan and gold. Its abdomen generally has bright red stripes across the top. Quino larvae are black and have a row of nine, orange-colored tubercles (fleshy/hairy extensions) on their back. Pupae are extremely cryptic and are mottled black and blue-gray.

Approximately 62,125 acres of critical habitat are designated for Quino within 9 units throughout the subspecies' current range in the United States. Primary constituent elements for Quino are those habitat features that are essential for the primary biological needs of larval diapause and feeding; pupation; adult oviposition (egg-laying), nectaring, roosting, basking, and dispersal; genetic exchange; and shelter. These habitat features include, but are not limited to: space for individual and population growth and for normal behavior; food, water, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing of offspring; and habitats that are protected from disturbance or are representative of the historical and geographical and ecological distributions of Quino. The primary constituent elements ("PCEs") essential to the conservation of Quino are:

1. Open areas within scrublands at least 21.5 square feet in size that:
  - a. Contain no woody canopy cover; and
  - b. Contain one or more of the host plants dot-seed plantain (*Plantago erecta*), woolly plantain (*Plantago patagonica*), white snapdragon (*Antirrhinum coulterianum*), or Chinese houses (*Collinsia concolor*); or
  - c. Contain one or more of the host plants thread-leaved bird's beak (*Cordylanthus rigidus*) or annual owl's clover (*Castilleja exserta*) that are within 328 feet of the host plants listed above; or
  - d. Contain flowering plants with a corolla tube less than or equal to 0.43 inch used for Quino growth, reproduction, and feeding;
2. Open scrubland areas and vegetation within 656 feet of the open canopy areas used for movement and basking; and
3. Hilltops or ridges within scrublands that contain an open, woody-canopy area at least 21.5 square feet in size used for Quino mating (hilltopping behavior) and are contiguous with (but not otherwise included in) open areas and natural vegetation described in PCEs 1 and 2 above.



### *Status and Distribution*

Multiple observations of Quino have been reported across a wide elevation range, from approximately 500 feet in elevation to over 5,000 feet (Service 2003). Quino was historically distributed throughout the coastal slope of southern California, including Los Angeles, Orange, Riverside, San Diego, and San Bernardino counties, and northern Baja California, Mexico (Mattoni et al. 1997, Service database). That distribution included the westernmost slopes of the Santa Monica Mountains, the Los Angeles plain and Transverse Ranges to the edge of the upper Anza-Borrego desert, and south to El Rosario in Baja California, Mexico (Emmel and Emmel 1973, Mattoni et al. 1997, Service database).

Quino may have once been one of the most abundant butterflies in coastal southern California, but by the 1970s, most of the coastal bluff and mesa habitats in southern California had been urbanized or otherwise disturbed. However, Quino still occupied locations inland and at higher elevations including Dictionary Hill, Otay Lakes, and San Miguel Mountain in San Diego County; and the Gavilan Hills in Riverside County. By the middle 1980s the species was thought to have disappeared from the known locations; the petition to list the species in 1988 suggested that it might be extinct. Current information suggests that Quino has been extirpated from Los Angeles, Orange, and San Bernardino counties and most northern locations in San Diego County. Nonetheless, new populations have been discovered in portions of Riverside County and south San Diego County, and the species continues to survive in northern Baja California, Mexico.

Overall, more than 75 percent of the historical range of the Quino has been lost (Brown 1991, Service database), and more than 90 percent of the subspecies' coastal mesa and bluff habitat, where most historical records are located, has been destroyed by habitat fragmentation, degradation, and development (Service database). At listing, Quino populations were reduced in number and size from historical conditions by more than 95 percent range-wide. For a detailed discussion of the current distribution of Quino, please refer to the Quino recovery plan (Service 2003). The Quino recovery plan identifies six recovery units throughout Riverside and San Diego counties and describes the known extant occurrence complexes (or metapopulations) throughout the range of the subspecies.

### *Habitat Affinity*

In southwestern San Diego County, the primary host plants for the Quino are dot-seed plantain, thread-leaved bird's beak, and white snapdragon. Larval Quino may also use other species of plantain (*Plantago* spp.) and annual owl's-clover as primary or secondary host plants and will diapause in or near the base of native shrubs, such as California buckwheat (*Eriogonum fasciculatum*) (73 FR 3327). In 2008, Chinese houses was reported as a new Quino host plant (Pratt 2010).

In its adult stage, Quino use a number of flowering plants as nectar sources. These nectar sources include lomatium (*Lomatium* spp.), goldfields (*Lasthenia* spp.), popcorn flowers

(*Plagybothrys* and *Cryptantha* spp.), gilia (*Gilia* spp.), ground pink (*Linanthus dianthiflorus*), chia (*Salvia columbariae*), annual lotus (*Lotus* spp.), onion (*Allium* spp.), yerba santa (*Eriodictyon* spp.), and California buckwheat (67 FR 18359, Mattoni et al. 1997).

Quino are generally found in open areas and ecotone situations that may occur in a number of plant communities, including grasslands, coastal sage scrub, and native woodlands with an open canopy cover. Open areas within a given vegetation community seem to be critical landscape features for Quino populations. Optimal habitat appears to contain little or no invasive nonnative vegetation, and especially, a well-developed cryptogamic crust. Densely vegetated areas are not known to support Quino (Mattoni et al. 1997). Habitat patch suitability is determined primarily by larval host plant density, topographic diversity, nectar resources availability, and climatic conditions (Service 2003).

#### *Threats and Conservation Needs*

Quino is threatened by urban and agricultural development, invasion by nonnative species, off-road vehicle use, grazing, fire management practices (Service 2003), and habitat fragmentation that limits metapopulation dynamics. Other factors that could contribute to population declines include enhanced nitrogen deposition and elevated atmospheric carbon dioxide concentrations. In addition, climate change has been identified as a potential threat to Quino, which is supported by observations in western Riverside County of ongoing range shift for this subspecies upslope in elevation, and extirpation of many populations in lower elevations, where drier habitats are likely to occur (Service 2009). Conversion to nonnative annual grassland will be the greatest threat to Quino reserves (Service 2003).

Significant areas of remaining Quino habitat have been protected through inclusion in Natural Community Conservation Planning/Habitat Conservation Planning reserve areas, the San Diego National Wildlife Refuge, and other habitat acquisition initiatives. Future conservation needs include protecting additional habitat supporting known populations (occurrence complexes) and landscape connectivity between them; conducting research necessary to refine recovery criteria; management of Quino habitat including enhancement of host plant populations, diversification of nectar sources and pollinators, and control of nonnative plants; establishing and maintaining a captive propagation program; targeted reintroduction if determined to be necessary; and establishing a cooperative outreach program.

The status of Quino was described in detail in the recently completed Quino 5-year review (Service 2009). Please refer to this document for more detailed information on local distribution of Quino populations, abundance, biology and life history, and habitat and ecosystem requirements, as well as a full discussion on potential threats to the species as a result of climate change.

## ENVIRONMENTAL BASELINE

Regulations implementing the Act (50 CFR § 402.02) define the environmental baseline as the past and present effects of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated effects of all proposed Federal projects in the action area that have undergone section 7 consultation, and the effects of State and private actions that are contemporaneous with the consultation in progress.

The action area is within the plan area for SDG&E's low-effect HCP for Quino (SDG&E 2007), which addresses potential impacts from SDG&E's existing and future operations and maintenance activities and some new construction. Up to 33 acres of Quino habitat is anticipated to be impacted over a 50-year period as a result of the HCP, but only 16 acres of impacts are expected to be permanent. Most of these impacts are expected to be small-scale impacts that occur over a large area (i.e., most of San Diego County) (Service 2008). Thus, only a small portion of the impacts authorized under the HCP would be expected to occur within the action area.

On November 10, 2010, the Service issued a no jeopardy and no adverse modification biological and conference opinion addressing construction and long-term operations and maintenance of the Sunrise Powerlink (SRPL) Project (Service 2010). The SRPL Project includes construction of a high-voltage 117-mile transmission line and related facilities from south of El Centro in Imperial County to the northeast edge of the Marine Corps Air Station Miramar in San Diego County. Some of the impacts to Quino from the SRPL Project occur within the Jacumba Occurrence Complex<sup>1</sup> and the Southeast San Diego Recovery Unit. Within 0.8 acre of land, the SRPL Project overlaps a portion of the action area for the ECO Substation Project, but not in the area occupied by Quino (Figure 1). Impacts to Quino and its designated critical habitat as a result of the SRPL Project were fully offset through the acquisition and provision of long-term management of occupied Quino habitat at the Long Potrero site.

The proposed project occurs within the Southeast San Diego Recovery Unit and the Jacumba Occurrence Complex for Quino, as identified in the Quino recovery plan (Service 2003) (Figure 1). Recovery units are the major units for managing recovery efforts for Quino. Recovery units often contain one or more Quino occurrence complexes. Recovery units are believed to be minimum viable units, within which landscape connectivity must be maintained.

About 1.58 miles of the proposed 138 kV transmission line will cross occupied Quino habitat (Figures 1 and 2). The transmission line will include poles and maintenance pads. In addition, 588 feet of new access roads will be constructed within occupied Quino habitat. Overall, new construction could impact up to 3.62 acres of occupied Quino habitat.

Quino individuals were observed along a 1.58-mile portion of the proposed 138-kV transmission line in 2009 (two individuals) and 2010 (two individuals) (SDG&E 2010). Additional Quino

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<sup>1</sup> The Jacumba Occurrence Complex has changed since the Quino recovery plan (Service 2003) was issued due to additional observations of Quino (Figure 1).

individuals were also observed north and south of the action area (SDG&E 2010) (Figure 2). In addition, host plants were found in the vicinity of these individuals, including dot-seed plantain and owl's clover. Quino have not been observed along any other portions of the proposed transmission line route, at the new substation site, or at the Boulevard Substation rebuild site. Using a 0.6-mile (1-kilometer) buffer around Quino individuals (Service 2003), Quino occupy 3.62 acres of suitable habitat within the action area that could be subject to ground disturbance due to project construction activities.

### *Critical Habitat*

The ECO Substation, SWPL loop-in, and Boulevard Substation rebuild sites are not located within critical habitat for Quino (Figure 1). The proposed 138 kV transmission line corridor crosses Unit 10 (Jacumba) for approximately 3.74 miles from the proposed location of steel transmission poles SP 66 through SP 77. PCEs 1, 2, and 3, with the exception of host plants, are found between SP 66 through 72. PCEs 1, 2 and 3, including host plants, occur within only approximately 0.7 mile of the overall 3.74-mile distance between SP72 through SP77 (SDG&E 2010).

## EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action that will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the proposed action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action and are later in time, but are still reasonably certain to occur.

According to the BA (SDG&E 2010), the BLM and California Public Utilities Commission (CPUC) consider Energia Sierra Juarez (ESJ) Gen-Tie Project and the Tule Wind Project "connected actions" to the ECO Substation Project under the National Environmental Policy Act. The Department of Energy (DOE) is the lead Federal agency for the ESJ Gen-Tie Project, which involves construction of a new high voltage transmission line that will provide a generation-tie to transmit renewable energy from a wind farm in northern Baja California, Mexico, to the ECO Substation (Figure 1) (DOE 2010). The DOE has determined that the ESJ Gen-Tie Project will not affect Quino or other federally listed species (DOE 2011). The BLM is the lead Federal agency for the Tule Wind Project, which will consist of up to 128 wind turbines, access roads between the turbines, overhead transmission lines, and associated facilities and include construction on BLM lands. The BLM has determined that Quino will be affected by the Tule Wind Project.

The Service has determined that the ESJ Gen-Tie Project and Tule Wind Project are not interrelated or interdependent actions to the ECO Substation Project. Based on our review of the "No Project Alternative 2-NO ECO Substation Project" in the *Draft Environmental Impact*

*Report (EIR)/Environmental Impact Statement (EIS) for the East County Substation, Tule Wind, and Energia Sierra Juarez Projects (CPUC/BLM 2010)*, the ESJ Gen-Tie Project and the Tule Wind Project could tie into the existing transmission infrastructure even if the ECO Substation were not built. According to the EIR/EIS, without the ECO Substation Project there would not be an “interconnection hub” that would enable renewable energy projects such as ESJ Gen-Tie and Tule Wind to connect to the grid. However, the EIR/EIS also describes what facilities would be required to allow the projects to connect to SDG&E’s existing transmission system (i.e., additional miles of transmission line, connection points on the existing transmission system, and possibly new substations). Thus, based on the information available to us and our understanding of the projects, the ESJ Gen-Tie Project and Tule Wind Project would still occur regardless of whether the ECO Substation Project is constructed. Moreover, the Tule Wind Project is being addressed in a separate section 7 consultation with the BLM, and as indicated above, DOE has made a “no effect” determination for the ESJ Gen-Tie Project.

The following analysis of direct, indirect, and cumulative effects, our analysis of the impacts to Quino critical habitat, and the overall project’s effect on recovery is inclusive of all impacts to Quino and its critical habitat from the ECO Substation Project. Because the overall project could not be constructed as proposed without approval of both of these Federal actions, no difference exists between project impacts facilitated by the proposed BLM ROW grant and those impacts facilitated by the proposed Corps CWA permit.

#### *Direct Effects*

Construction within Quino habitat has the potential to kill or injure Quino eggs, larvae, and pupae during the removal or crushing of occupied host plants. This impact could occur within about 3.62 acres of occupied Quino habitat due to tower and access road construction. The limited amount of ground disturbance; the flagging and avoidance of host plants during construction; and the focus on keeping facilities, trucks, tools and equipment on existing access roads or cleared areas should minimize these impacts.

Adult Quino could be injured or killed by moving vehicles if construction is conducted during the Quino flight season, which generally includes 4 to 6 weeks between January and May, depending on weather conditions (Service 2003). Based on the number of adult Quino observed in the action area during the 2009 and 2010 surveys (i.e., 2 adult Quino each year), we believe the likelihood of this impact occurring is low, though not discountable. To reduce this impact to a discountable level (i.e., one that is highly unlikely to occur), SDG&E will implement a conservation measure that limits traffic speeds on unpaved roads and the ROW to 15 mph within occupied Quino habitat during the flight season.

In addition to loss of individual Quino larvae, eggs, and pupae, the permanent removal<sup>2</sup> of up to 3.62 acres of occupied Quino habitat will reduce the availability of oviposition sites, larval food sources, pupal sheltering sites, and adult nectar sources within the action area. However, the

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<sup>2</sup> SDG&E will restore temporary habitat impacts, but thus far, none of the temporary impacts identified are within occupied Quino habitat.



3.62 acres of impacted habitat represents only 0.1 percent of the 3,349 acres of Quino habitat within the Jacumba Occurrence Complex (Service 2003), and because the impacts will occur along a 1.58-mile linear impact area, the project will not remove host plants or nectar sources or affect Quino individuals at any concentrated location.

Habitat loss can result in habitat fragmentation, making it more difficult for Quino individuals to move between areas of higher quality habitat and exchange genetic material (Service 2003). The small-scale size of the individual habitat impacts along a linear alignment is not expected to fragment Quino habitat within the action area. The largest impact area around a given pole is 1 acre. In addition, the impacts will be offset at a 2:1 ratio by preservation and management of similar habitat, with priority given to conservation of habitat within the Southeast San Diego Recovery Unit. Overall, the loss of individual Quino and its habitat within the action area as a result of project construction is not expected to result in an appreciable reduction in the numbers, reproduction, or distribution of Quino in the action area. As a result, we expect existing Quino occurrences and populations within the Jacumba Occurrence Complex to be resilient to the minor effects of project construction.

#### *Indirect Effects*

##### Nonnative Plant Introduction

Construction activities have the potential to introduce nonnative plants to the action area by carrying seeds on vehicles, people, or equipment, and through ground disturbance. Ground disturbance can promote the establishment and spread of nonnative plants (Merriam et al. 2006). Such plants can degrade habitat quality for Quino by competing with and replacing host and nectar plants (Service 2003). Conversion of habitat to nonnative grasslands is the greatest threat to Quino reserves (Service 2003). However, several conservation measures are proposed that should effectively avoid or minimize the potential for the spread of nonnative species, including the identification and avoidance of weed infestations, washing of off-road equipment prior to entering the construction area, restoration of temporary habitat impacts, and removal of weeds.

##### Dust

Fugitive dust from construction activities can negatively affect photosynthesis and decrease water-use efficiency of plants (Sharifi et al. 1997), including Quino host and nectar plants. However, due to the temporal and small-scale nature of construction activities, the potential for impacts from dust should be insignificant.

##### Recreation

New access roads can lead to increased recreational activities (including off-highway vehicle use) that can disturb host and nectar sources, kill individual Quino, and introduce and promote nonnative plant species. However, the project proponent will install gates at key access points to reduce the potential for the public to enter and disturb the area. For the most part, existing roads

will be used for project construction of the substation and transmission line, with only one short span of 588 feet of road construction needed for new access. The addition of new gates should reduce the potential for recreation impacts compared to the existing condition.

### Fire

Transmission lines can cause fires via sparks, debris contact with transformers and conductors, wooden poles being blown down by wind, conductor-to-conductor contact, dirt buildup on powerline hardware, or wildlife contact with powerlines. Small and medium voltage powerlines and high winds were responsible for four of the largest California fires from 1923 to 2007.

Quino adults, larvae, and eggs could be burned in wildfires. In addition, habitat is susceptible to conversion of shrubland to nonnative grasslands with short fire return intervals (Service 2003). Nonnative plants resulting from this conversion likely would compete with Quino host and nectar plants (Service 2003). However, periodic infrequent fire also can play a role in creating and maintaining suitable habitat conditions for Quino (Mattoni et al. 1997), like open areas. The impact of fire on Quino depends upon the intensity, frequency, and season of fire occurrence and size of the nonnative seedbank (Service 2003).

SDG&E will implement a “Construction Fire Prevention Plan” for the ECO Substation Project and monitor construction activities to ensure its implementation and effectiveness. This plan will include adherence to “Wildland Fire Prevention and Fire Safety Electric Standard Practices” to reduce the potential for transmission line-induced fires. The plan will also: 1) include procedures to minimize the potential to start a fire, a requirement to adhere to California Fire Protection Codes, and a requirement to maintain fire-fighting equipment onsite and in vehicles during construction; and 2) provide for appropriate timing and use of fire-protective mats or shields during grinding and welding operations, emergency response and reporting procedures, and relevant emergency contact information. With implementation of these standard practices, the potential for wildfire induced impacts to Quino due to project construction should be effectively avoided or minimized to a discountable level.

### *Effect on Critical Habitat*

The analysis of impacts to critical habitat does not rely on the regulatory definition of “destruction or adverse modification” of critical habitat at 50 C.F.R. 402.02. Instead, we have relied upon the statute and the August 6, 2004, Ninth Circuit Court of Appeals decision in *Gifford Pinchot Task force v. U.S. Fish and Wildlife Service* (No. 03-35279) to complete our analysis on the effects of the ECO Substation Project on designated Quino critical habitat. The proposed project will result in the permanent loss of 2.78 acres of designated critical habitat for Quino, which represents only 0.11 percent of the 2,514 acres of designated critical habitat within Unit 10 (Jacumba) and only 0.004 percent of the total 62,125-acre designation. The ground disturbance will occur over a linear distance of approximately 3.74 miles and across a number of sites to install 10 steel transmission poles (i.e., SP 66 through SP 77) and their associated maintenance pads and to provide access to the pole sites. Within the overall area of

critical habitat impacted, loss of host plants (PCE 1) will include only 1.7 acres distributed between 6 of the steel transmission pole sites (i.e., SP72 through SP77). Thus, the impact to Quino breeding, feeding, and sheltering habitat will not be concentrated at any one site. In addition, the overall loss of 2.78 acres of PCEs dispersed along the transmission line corridor will not affect Quino movement within or across Unit 10. Considering that Unit 10 includes 2,514 acres of habitat and the overall Quino critical habitat designation includes 62,125 acres of habitat, the small, dispersed loss of PCEs from construction of the ECO Substation Project will not appreciably diminish the role or function of Unit 10 (Jacumba), or the overall critical habitat designation, to support recovery of Quino. Moreover, SDG&E is committed to providing conservation, in coordination with the Service, to offset impacts to Quino critical habitat.

#### *Effect on Recovery*

The proposed project does not conflict with the recovery actions or goals described in the Quino recovery plan (Service 2003). The action area is within the Southeast San Diego Recovery Unit and the Jacumba Occurrence Complex (Service 2003) (Figure 1). Maintaining as much Quino habitat in the Southeast San Diego Recovery Unit and the Jacumba Occurrence Complex as possible is considered necessary for the recovery of this species (Service 2003). However, only 3.62 acres of Quino habitat within the 96,767-acre recovery unit will be impacted by the project. This small loss of habitat is not expected to affect the long-term viability of the 3,349-acre Jacumba Occurrence Complex or fragment Quino habitat within the action area or across the broader recovery unit. SDG&E will provide for the long-term protection and management of similar habitat at a 2:1 ratio, with priority given to the conservation of habitat within the Southeast San Diego Recovery Unit. This conservation action will offset project impacts and support recovery of the species.

#### CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. We are unaware of any non-Federal actions affecting listed species that are reasonably certain to occur in the action area considered by this opinion.

#### CONCLUSION

After reviewing the current status of the species, the environmental baseline for the action area, effects of the proposed action, and the cumulative effects, it is our biological opinion that the proposed action is not likely to jeopardize the continued existence of Quino or result in the destruction or adverse modification of designated Quino critical habitat. Our conclusions are based on the following:

1. The project affects a small amount of habitat across the overall range of Quino, and impacts occur over a long, linear area, thus minimizing the potential for significant impacts to individual Quino occurrences and the PCEs of designated Quino critical habitat.
2. The project includes measures to minimize direct mortality of Quino eggs, larvae, pupae, and adults and to avoid and minimize indirect effects.
3. Direct mortality of Quino individuals within the Jacumba Occurrence Complex will be limited and the habitat impacts, including to designated Quino critical habitat, are minor in relation to the overall habitat available in the Southeast San Diego Recovery Unit and Unit 10 (Jacumba) of designated Quino critical habitat; thus, this project does not conflict with the recovery actions or goals described in the Quino recovery plan or diminish the role of designated Quino critical habitat in supporting the recovery of Quino.
4. The habitat loss associated with the proposed project will be offset by preservation and management of occupied Quino habitat at a 2:1 ratio, which will support recovery of the species.

### **INCIDENTAL TAKE STATEMENT**

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Harass is defined as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary, and must be undertaken by the BLM and/or Corps so that they become binding conditions of any grant or permit issued to SDG&E, as appropriate, for the exemption in section 7(o)(2) to apply. The BLM and/or Corps have a continuing duty to regulate the activity covered by this Incidental Take Statement. If the BLM and/or Corps: 1) fail to assume and implement the terms and conditions; or 2) fail to require SDG&E to adhere to the terms and conditions of the Incidental Take Statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the BLM, Corps, or SDG&E must report the progress of the action and its impact on the species to the Service as specified in the Incidental Take Statement.

## AMOUNT OR EXTENT OF TAKE

Quantifying the precise number of Quino individuals that may be incidentally taken is not possible because the butterfly's small body size and diapause life stage make the observance or detection of mortality highly unlikely. In addition, numbers will fluctuate on a seasonal and annual basis at any occupied site. As reflected in our effects analysis above, impacts to Quino have been quantified and evaluated based on loss of occupied habitat. The loss of occupied habitat provides a method to quantify the impact to the species when we cannot identify or predict the number of individuals impacted and provides a method to assess the overall impact on recovery. Consistent with our effects analysis and because we cannot reasonably identify or predict the number of Quino individuals likely to be taken, we have established a habitat-based anticipated level of incidental take that, if exceeded, will trigger reinitiation of formal consultation.

Incidental take of Quino is exempted for SDG&E, the BLM, and Corps as follows:

- Death or injury of eggs, larvae, and pupae from crushing, trampling, or removal of host plants during construction within up to 3.62 acres of occupied Quino habitat, defined as any suitable Quino habitat within 0.6 mile (1 kilometer) of a Quino sighting. The amount or extent of incidental take will be exceeded if more than 3.62 acres of occupied Quino habitat, as generally depicted on Figure 2, is impacted as a result of the project.

No take of Quino is anticipated or exempted as a result of project-induced fires during construction.

## EFFECT OF THE TAKE

In this biological opinion, we determined that the level of anticipated take is not likely to result in jeopardy to Quino.

## REASONABLE AND PRUDENT MEASURES

SDG&E will implement numerous conservation measures as part of the proposed action to minimize the incidental take of Quino. Our evaluation of the proposed action is based on the assumption that the actions as set forth in the "Conservation Measures" section of this biological opinion will be implemented. Any changes to the conservation measures proposed by the BLM, Corps, and SDG&E, or in the conditions under which project activities were evaluated, may constitute a modification of the proposed action. If this modification causes an effect to Quino that was not considered in the biological opinion, reinitiation of formal consultation pursuant to the implementing regulations of section 7(a)(2) of the Act (50 CFR § 402.16) may be warranted. The reasonable and prudent measure outlined below is nondiscretionary. Failure to comply may cause the protective coverage of section 7(o)(2) to lapse. The following reasonable and prudent measure is necessary and appropriate to minimize incidental take.



SDG&E shall monitor and report the impact of project construction on Quino eggs, larvae, and pupae.

#### TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, SDG&E must comply with the following term and condition, which implements the reasonable and prudent measure described above and outlines reporting and monitoring requirements. Terms and conditions are non-discretionary. The following term and condition implements the reasonable and prudent measure.

- 1.1 SDG&E shall provide the CFWO, BLM, and Corps with a report within 30 days of completing habitat removal activities in occupied Quino habitat. The report shall include the acreage of occupied Quino habitat impacted, and information on any incidental observations of Quino larvae (caterpillars) by the biological monitor in areas of occupied Quino habitat affected by construction. The biological monitor must be approved by the CFWO and have knowledge of the biology and ecology of Quino.

#### CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or to develop information. We recommend the BLM implement the following actions:

1. Periodically re-survey areas around the Jacumba Occurrence Complex and within the project area to help determine whether the current known population expands its range (Service 2003, Recovery Plan Task 6.1).
2. Monitor nonnative species within the Jacumba Occurrence Complex and Unit 10 of designated critical habitat for Quino (Service 2003, Recovery Plan Task 6.3). Implement measures to eliminate nonnative species and restore or improve habitat for Quino within the Jacumba Occurrence Complex, as appropriate, and collect data to evaluate the effectiveness of these measures (Service 2003, Recovery Plan Task 1.7).

#### REINITIATION NOTICE

This concludes formal consultation on the proposed actions outlined in the initiation request. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: 1) the amount or extent of incidental take is exceeded; 2) new information reveals effects of the proposed action that may affect listed species or critical habitat in a manner or to an extent

not considered in this opinion; 3) the agency action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in this opinion; or 4) a species is listed or critical habitat is designated that may be affected by the proposed action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation. With regard to 2 above, the CFWO should be notified immediately if construction-related induced fires impact occupied Quino habitat in the action area.

If you have any questions regarding this biological opinion, please contact Jesse Bennett of this office at 760-431-9440, extension 305.

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U.S. Fish and Wildlife Service (Service). 2010. Reinitiation of formal consultation and revised biological and conference opinion on the construction and long-term operation and maintenance program for the Sunrise Powerlink Project, Imperial and San Diego counties, California.

#### Correspondence and Communications

Department of Energy (DOE). 2011. March 8, 2011, letter to Jesse Bennett, Fish and Wildlife Biologist, Carlsbad Fish and Wildlife Office, from Jerry Pell, Principal NEPA Document Manager, Office of Electricity Delivery and Reliability, concluding section 7 consultation for the Energia Sierra Juarez Transmission Line Project.









**UNITED STATES  
Department of the Interior**



**ECO Substation and Transmission Line Project**

- Quino locations
- Jacumba Occurrence Complex
- Proposed 138 kV pole locations
- Project Impacts

Sources: San Diego Gas & Electric, National Geographic Society, USFWS



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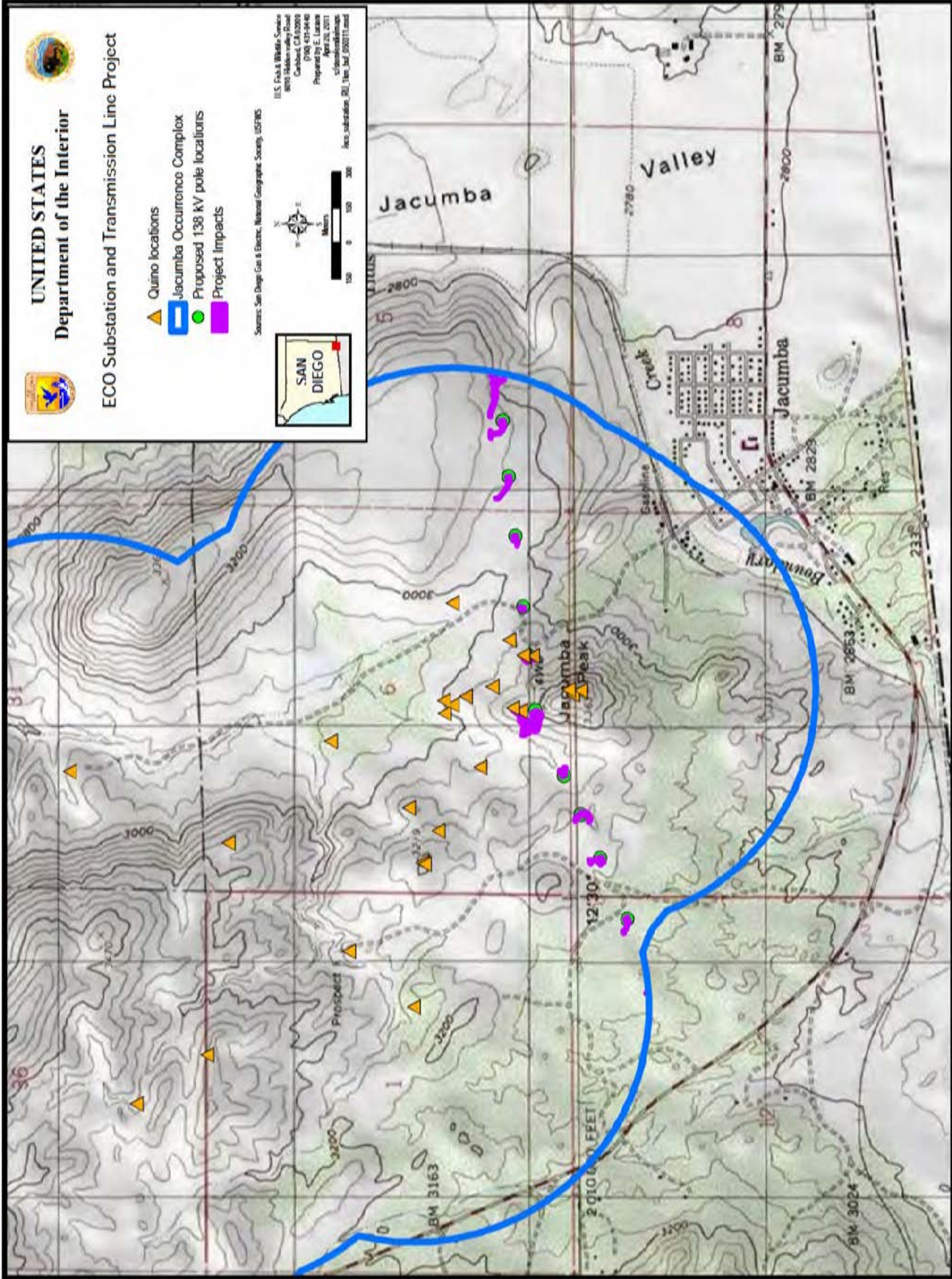


Figure 2. Project Impacts Within Jacumba Occurrence Complex







United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Washington, D.C. 20240  
<http://www.blm.gov>



**DECISION MEMORANDUM FOR THE SECRETARY**

FROM: Mike Pool  
Acting Director, Bureau of Land Management

SUBJECT: Record of Decision – East County Substation Project (CA)

**INTRODUCTION**

The Applicant, San Diego Gas and Electric (SDG&E) is proposing to construct and operate the East County (ECO) Substation Project on public and private lands. SDG&E submitted a right-of-way (ROW) application and initial Plan of Development (the Proponent's Environmental Assessment) to the Bureau of Land Management (BLM) on August 13, 2009, to construct, operate, maintain, and decommission a 1.5-mile segment of the ECO Substation Project's 138 kilovolt (kV) transmission line on public lands. This entire 138 kV line, originally proposed as 13.3 miles, would transmit electricity from the proposed SDG&E ECO Substation to the proposed SDG&E rebuilt Boulevard Substation. The project site is located in southeastern San Diego County, California, approximately 70 miles east of downtown San Diego, south of Interstate 8 (I-8), east of the town of Jacumba and along Old Highway 80.

The Preferred Alternative would increase the route to 13.9 miles, of which 0.8 mile is on BLM administered public lands, and would require a portion of the route to be underground. The project decision (Decision) would authorize a ROW for this route on BLM administered land. The portions of the project on private land are under the jurisdiction of the California Public Utilities Commission (CPUC), and were authorized on June 21, 2012.

**BACKGROUND**

The BLM received an application for a ROW from SDG&E on August 13, 2009, for the 138 kV transmission line associated with the ECO Substation Project. In addition to the 138 kV transmission line, the Proposed Project includes components such as a newly-constructed ECO Substation, Southwest Powerlink (SWPL) Loop-In, and the Boulevard Substation rebuild, which are located on private lands subject to the permitting authority of the CPUC. The BLM and CPUC analyzed this project in a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR), in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). In addition to the ECO Substation Project, the EIS/EIR analyzed the Tule Wind Project and Energia Sierra Juarez (ESJ) Gen-tie as connected actions, as well as the Campo, Manzanita, and Jordan wind energy projects. Although these projects were analyzed in the same EIS/EIR, only the 0.8-mile underground segment of the ECO



Substation Project 138 kV transmission line and portions of the Tule Wind Project would be located on BLM administered lands. The Department of the Interior signed a ROD for the Tule Wind Project on December 20, 2011. The remaining projects analyzed in the EIS/EIR are on private lands and under the jurisdiction of the CPUC.

The EIS/EIR analyzed the site-specific impacts on air quality, biological resources, cultural resources, water resources, geological resources and hazards, hazardous materials handling, land use, noise, and visual resources. This decision does not amend the Eastern San Diego County Resource Management Plan.

Construction of the ECO Substation Project is expected to begin in 2012 and is anticipated to require 24 months to complete. Construction activities associated with the 0.8-mile segment of underground 138 kV transmission line located on BLM administered public lands are anticipated to require 2 months to complete (although it may not be a consecutive 2 months). Commercial operation could commence as early as 2014. The sequence of project construction activities is outlined in the plan of development (POD) on file with the BLM and in the Biological Opinion (BO) provided in Appendix A of the ROD.

## **POSITION OF INTERESTED PARTIES**

Throughout the process, local residents expressed concern about the cumulative effects from multiple industrial renewable energy and transmission projects in Eastern San Diego County. There was also concern about wildland fire, as this area is subject to large fires. The BLM adopted several mitigation measures in response to this concern. Additionally, some environmental groups opposed to energy development projects in the desert as a whole may not support this project.

Several tribes have expressed concerns about the impacts of the project on cultural resources. The proposed transmission line was rerouted to avoid an important cultural resource site that included cremations. One additional National Register archaeological site is adversely affected on private land owned by SDG&E and will be mitigated through data recovery as required in the Memorandum of Agreement (MOA). The MOA also acknowledges that the Tribes have asserted that there are effects to their cultural and sacred landscape and the Jacumba Discontinuous Archaeological National Register District, although no specific properties were identified in consultation. The ROW grant will include mitigation measures to address this issue.

## **DECISION OPTIONS**

The EIS/EIR considered five action alternatives, and two No Action Alternatives with regard to the ECO Substation Project, including the No Project Alternative 1 (No ECO Substation, Tule Wind, ESJ Gen-Tie, Campo, Manzanita, or Jordan wind energy projects) and No Project Alternative 2 (No ECO Substation Project). Action alternatives considered included:

- (1) Proposed Action, a new 500/230/138 electrical substation, 13.3-mile 138 kV transmission line, loop-in of the existing SWPL to the ECO Substation, a new 13.3-mile 138 kV overhead transmission line running between the proposed ECO Substation, and the rebuilt Boulevard Substation;



- (2) ECO Substation Site Alternative (shifting the proposed substation site 700 feet to the east);
- (3) ECO Partial Underground 138 kV Transmission Route Alternative (rerouting and undergrounding of the proposed 138 kV transmission line) (**Preferred Alternative**);
- (4) ECO Highway 80 138 kV Transmission Route Alternative (rerouting the transmission line north along Old Highway 80 near proposed milepost 5.8 to the rebuilt Boulevard Substation); and
- (5) ECO Highway 80 Underground 138 kV Transmission Route Alternative (rerouting the transmission line north along Old Highway 80 near milepost 5.8 and installing the transmission line underground from this point to the rebuilt Boulevard Substation).

The ECO Substation Project includes the following measures, terms, and conditions:

- Compensation for disturbance quino checkerspot butterfly habitat at 2:1 ratio.
- Compensation for impacts to native vegetation communities at 1:1 ratio.
- Salvage/relocation of special-status plants.
- Historic Properties Treatment Plan-Cultural Resources Management Plan to avoid or minimize and mitigate for impacts to cultural resources.
- Measures to minimize visibility of structures to reduce visual impacts.

The Draft Mitigation Monitoring, Compliance and Reporting Program (MMCRP) for this project is located in Section H of the Final EIR/EIS. The completed plan will be made available in its entirety on the CPUC website for the ECO Substation Project:

<http://www.cpuc.ca.gov/environment/info/dudek/ecosub/ecosub.htm> before any ground disturbing activity is authorized.

## RECOMMENDATION

I recommend that you approve the Preferred Alternative (ECO Partial Underground 138 kV Transmission Route Alternative) for the ECO Substation Project. Your approval of this decision constitutes the final decision of the Department of the Interior and, in accordance with the regulations at 43 CFR 4.410(a)(3), is not subject to appeal under Departmental regulations at 43 CFR Part 4. Any challenge to this decision, including the BLM Authorized Officer's issuance of the rights-of-way as approved by this decision, must be brought in Federal district court.

## DECISION BY THE SECRETARY

APPROVE:   X  

DISAPPROVE:       

COMMENTS:

AUG 21 2012



Ken Salazar



APPENDIX C  
ADOPTED MITIGATION MEASURES  
**East County Substation Project 138-Kilovolt  
Transmission Line**



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## INTRODUCTION

All mitigation measures presented in the Final Environmental Impact Statement/Environmental Impact Report (FEIS/FEIR) that apply to the BLM’s Preferred Alternative for the East County (ECO) Substation Project 138-kilvolt (kV) Transmission Line are listed below. In addition, since publication of the FEIS/FEIR, Mitigation Measures CUL-1A, CUL-1D, FF-3, and FF-4 were revised and included in an errata to the FEIS/FEIR. These minor revisions are reflected in the mitigation measures included herein. Measures are presented by environmental discipline in the order they are presented in the EIS/EIR. Following the mitigation measures are the Applicant Proposed Measures (APMs) that San Diego Gas & Electric (SDG&E) presented in its Proponent’s Environmental Assessment for the Proposed Action.

Table 1, Mitigation Measures Applicable to the Selected Alternative, provides an overview of the mitigation measures and Applicant Proposed Measures that apply to the 138 kV transmission line on BLM-managed lands.

**Table 1. Mitigation Measures Applicable to the Selected Alternative**

<b>Construction Components</b>	<b>138 kV Transmission Line</b>
BIO-1a. Confine all construction and construction-related activities to the minimum necessary area as defined by the final engineering plans.	☒
BIO-1b. Conduct contractor training for all construction staff.	☒
BIO-1c. Conduct biological construction monitoring.	☒
BIO-1d. Restore all temporary construction areas pursuant to a Habitat Restoration Plan.	☒
BIO-1e. Provide habitat compensation or restoration for permanent impacts to native vegetation communities.	☒
BIO-1f. Implement fire prevention best management practices during construction and operation activities.	☒
BIO-1g. Prepare and implement a Stormwater Pollution Prevention Plan.	☒
BIO-2a. Limit temporary and permanent impacts to jurisdictional features to the minimum necessary as defined by the final engineering plans.	☒
BIO-2b. Implement habitat creation, enhancement, preservation, and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands.	☒
BIO-2c. Where drainage crossings are unavoidable, construct access roads at right angles to drainages.	☒
BIO-3a. Prepare and implement a Noxious Weeds and Invasive Species Control Plan.	☒
BIO-4a. Prepare and implement a Dust Control Plan.	☒
BIO-5a. Install fencing or flagging around identified special-status plant species populations in the construction areas	☒
BIO-5b. Implement special-status plant species compensation.	☒
BIO-7a. Cover and/or provide escape routes for wildlife from excavated areas and monitor these areas daily.	☒
BIO-7b. Enforce speed limits in and around all construction areas.	☒
BIO-7c. Minimize night construction lighting adjacent to native habitats.	☒

## Appendix C Adopted Mitigation Measures

Construction Components	138 kV Transmission Line
BIO-7d. Prohibit littering and remove trash from construction areas daily	☑
BIO-7e. Prohibit the harm, harassment, collection of, or feeding of wildlife.	☑
BIO-7f. Obtain and implement the terms of agency permit(s) with jurisdiction federal or state listed species.	☑
BIO-7j. Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds.	☑
BIO-11a. Conduct maintenance activities resulting in vegetation disturbance outside of the bird nesting season or conduct pre-construction nesting bird surveys.	☑
APMs ECO-BIO-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 13, 14, 15, 19, 21, 22, 23, 24, 26, 27, 28, 29, and 30	☑
APMs ECO-BIO-12, 16, 17, 20, and 25	☑
VIS-3a. Reduce visibility of construction activities and equipment.	☑
VIS-3b. Reduce construction night-lighting impacts.	☑
VIS-3c. Reduce construction impacts to natural features.	☑
VIS-3d. Reduce in-line views of land scars.	☑
VIS-3e. Reduce visual contrast from unnatural vegetation lines.	☑
VIS-3f. Minimize vegetation removal.	☑
VIS-3m. Reduce visual impacts resulting from native tree removal.	☑
APM ECO-AES-04	☑
LU-1a. Prepare Construction Notification Plan.	☑
LU-1b. Notify property owners and provide access.	☑
LU-2. Revise project elements to minimize land use conflicts.	☑
WR-1. Provide notice for access restrictions or anticipated closures to wilderness and recreation areas.	☑
CUL-1A. Develop and implement a Historic Properties Treatment Plan-Cultural Resources Management Plan.	☑
CUL-1B. Avoid and Protect Significant Resources.	☑
CUL-1C. Training for Contractor.	☑
CUL-1D. Construction Monitoring.	☑
CUL-1E. Discovery of Unknown Resources.	☑
CUL-1F. Control Unauthorized Access.	☑
CUL-1G. Funding of Law Enforcement Patrols.	☑
CUL-1H. Continue Consultation with Native Americans and Other Traditional Groups.	☑
CUL-2. Human Remains.	☑
APMs ECO-CUL-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11	☑
PALEO-1A. Inventory and evaluate paleontological resources in the Final APE.	☑
PALEO-1B. Develop Paleontological Monitoring and Treatment Plan.	☑
PALEO-1C. Monitor Construction for Paleontology.	☑
PALEO-1D. Conduct Paleontological Data Recovery.	☑
PALEO-1E. Train Construction Personnel.	☑
NOI-1. Blasting Plan.	☑
APMs ECO-NOI-1, 2, and 4	☑

## Appendix C Adopted Mitigation Measures

Construction Components	138 kV Transmission Line
TRA-1. Prepare and implement a Traffic Control Plan.	☒
TRA-2. Repair roadways damaged by construction activities.	☒
HAZ-1a. Hazardous Materials Management Plan.	☒
HAZ-1b. Health and Safety Program.	☒
HAZ-1c. Waste Management Plan.	☒
HAZ-2b. Contingency plan for encountering contaminated soils.	☒
HAZ-3. Soil testing for lead contamination.	☒
HAZ-4a. Safety Assessment.	☒
HAZ-4b. Blasting Plan.	☒
PS-2. Determine proper grounding procedures and implement appropriate grounding measures.	☒
AQ-1. Emissions control during construction activities.	☒
AQ-2. Construction fleet emissions control.	☒
APMs ECO-AIR-01, 02, 03, 04, 05, 06, 07, 08, 09, 10 and 11	☒
HYD-1. A Stormwater Pollution Prevention Plan shall be prepared to reduce soil erosion during construction.	☒
HYD-2. Avoidance and preventative measures to protect local groundwater during excavation.	☒
HYD-3. Identification of sufficient water supply.	☒
HYD-5. Implementation of creek-crossing procedures.	☒
HYD-6. Horizontal Directional Drill Contingency Plan.	☒
HYD-7. Bury power line below 100-year scour depth.	☒
APMs ECO-HYD-01 and 02	☒
GEO-1. Erosion Control and Sediment Transport Control Plan.	☒
GEO-2. Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.	☒
GEO-3. Conduct geotechnical investigations.	☒
GEO-4. Facilities inspections conducted following major seismic event.	☒
APM ECO-GEO-1	☒
APMs ECO-HAZ-01, 04, 05, and 06	☒
PSU-1a. Notification of utility service interruption.	☒
PSU-1b. Protect underground utilities.	☒
PSU-1c. Coordinate with utility providers.	☒
FF-1. Develop and implement a Construction Fire Prevention/Protection Plan.	☒
FF-2. Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009) to Create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan.	☒
FF-3. Provide Assistance to San Diego Rural Fire Protection District (SDRFPD) and San Diego County Fire Authority (SDCFA).	☒
FF-4. Customized Fire Protection Plan for Project.	☒
FF-6. Funding for FireSafe Council.	☒
FF-7. Preparation of Disturbed Area Revegetation Plan.	☒

## Biological Resources

- BIO-1a. Confine all construction and construction-related activities to the minimum necessary area as defined by the final engineering plans.** All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas identified on the final engineering plans. The limits of the approved work space shall be delineated with stakes and/or flagging that shall be maintained throughout the construction period. An environmental monitor shall complete regular observations to ensure that all work is completed within the approved work limits, and in the event any work occurs beyond the approved limits, it shall be reported. During and after construction, entrances to access roads shall be gated to prevent the unauthorized use of these construction access roads by the general public. Signs prohibiting unauthorized use of the access roads shall be posted on these gates. In addition, to control unauthorized use of project access roads by off-road vehicle enthusiasts, the applicants shall provide funding to land management entities responsible for areas set aside for habitat conservation to provide for off-road vehicle enforcement patrols. The responsible land management entities will formulate what funding is reasonable to control unauthorized use of project access roads.
- BIO-1b. Conduct contractor training for all construction staff.** Prior to construction, all developer, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to implement the mitigation measures and comply with environmental regulations, including plant and wildlife species avoidance, impact minimization, and best management practices. Sign-in sheets and hardhat decals shall be provided that document contractor training has been completed for construction personnel.
- BIO-1c. Conduct biological construction monitoring.** An authorized biological monitor must be present at the construction sites during all ground disturbing and vegetation removal activities. The monitor shall survey the construction sites and surrounding areas for compliance with all environmental specifications. Weekly biological construction monitoring reports shall be prepared and submitted to the appropriate permitting and responsible agencies through the duration of the ground disturbing and vegetation removal construction phase. Monthly biological construction monitoring reports shall be prepared and submitted through the duration of project construction to document compliance with environmental requirements.

- BIO-1d. Restore all temporary construction areas pursuant to a Habitat Restoration Plan.** All temporary work areas not subject to long-term use or ongoing vegetation maintenance shall be revegetated with native species characteristic of the adjacent native vegetation communities in accordance with a Habitat Restoration Plan. A habitat restoration specialist will be designated and approved by the California Public Utilities Commission and Bureau of Land Management and will determine the most appropriate method of restoration. Restoration techniques may include: hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. The Habitat Restoration Plan shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. At the completion of project construction, all construction materials shall be completely removed from the site. All temporary construction access roads shall be permanently closed and restored. Topsoil located in areas to be restoration would be conserved and stockpiled during the excavation process for use in the restoration. Wherever possible, vegetation would be left in place to avoid excessive root damage to allow for natural recruitment following construction. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the CPUC or BLM (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the CPUC or BLM, the temporary impact shall be considered a permanent impact and compensated accordingly (see MM BIO-1e).
- BIO-1e. Provide habitat compensation or restoration for permanent impacts to native vegetation communities.** Permanent impact to all native vegetation communities shall be compensated through a combination habitat compensation and habitat restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Habitat compensation shall be accomplished through agency-approved land preservation or mitigation fee payment for the purpose of habitat compensation of lands supporting comparable habitats to those lands impacted by the ECO Substation Project. Land preservation or mitigation fee payment for habitat compensation must be completed within 18 months of permit issuance. Habitat restoration may be appropriate as compensation for permanent impacts provided that restoration is demonstrated to be feasible and the restoration effort is implemented pursuant to a Habitat Restoration Plan, which includes success criteria and monitoring specifications as described above for Mitigation Measure BIO-1d. The Habitat Restoration Plan shall be approved by the permitting



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agencies prior to construction of the project. All habitat compensation and restoration used as mitigation for the ECO Substation Project on public lands shall be located in areas designated for resource protection and management. All habitat compensation and restoration used as mitigation for the ECO Substation Project on private lands shall include long-term management and legal protection assurances.

**BIO-1f. Implement fire prevention best management practices during construction and operation activities.** Fire prevention best management practices shall be implemented during construction and operation of the project as specified by the Construction Fire Prevention/Protection Plan (to be developed as required under Mitigation Measure FF-1) and Wildland Fire Prevention and Fire Safety Electric Standard Practice Operation and Maintenance Plan (to be revised as required under Mitigation Measure FF-2).

**BIO-1g. Prepare and implement a Stormwater Pollution Prevention Plan.** Prepare a Stormwater Pollution Prevention Plan pursuant to the specifications described in Mitigation Measure HYD-1.

**BIO-2a. Limit temporary and permanent impacts to jurisdictional features to the minimum necessary as defined by the final engineering plans.** Obtain and implement the terms and conditions of agency permit(s) for unavoidable impacts to jurisdictional wetlands and waters. All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas within the approved work limits identified on the final engineering plans. The limits of the approved work space shall be delineated with stakes and/or flagging that shall be maintained throughout the construction period. The project applicant shall obtain applicable permits and provide evidence of permit approval, which may include but not be limited to a Clean Water Act Section 404 Permit, a Clean Water Act Section 401 water quality certification, and a Section 1602 streambed alteration agreement with the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Game for impacts to jurisdictional features prior to project construction. The terms and conditions of these authorizations shall be implemented.

**BIO-2b. Implement habitat creation, enhancement, preservation, and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands.** Temporary and permanent impacts to all jurisdictional resources shall be compensated through a combination habitat creation (i.e.,

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establishment), enhancement, preservation, and/or and restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Any creation enhancement, preservation, and/or restoration effort shall be implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. A habitat restoration specialist will be designated and approved by the permitting agencies and will determine the most appropriate method of restoration. Restoration techniques may include hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the CPUC or BLM (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the CPUC or BLM, the temporary impact shall be considered a permanent impact and compensated accordingly. All habitat creation and restoration used as mitigation for the Proposed ECO Substation Project on public lands shall be located in areas designated for resource protection and management. All habitat creation and restoration used as mitigation for the project on private lands shall include long-term management and legal protection assurances.

**BIO-2c. Where drainage crossings are unavoidable, construct access roads at right angles to drainages.** Unless not possible due to existing landforms or site constraints, access roads shall be built perpendicular to drainages to minimize the impacts to these resources and prevent impacts along the length of jurisdictional features.

**BIO-3a. Prepare and implement a Noxious Weeds and Invasive Species Control Plan.** A Noxious Weeds and Invasive Species Control Plan shall be prepared and reviewed by the California Public Utilities Commission/Bureau of Land Management and applicable permitting agencies. On BLM lands, the plan shall be consistent with an Integrated Pest Management approach per the Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (2007). The plan shall be implemented during all phases of project construction and operation. The plan shall include best management practices to avoid and minimize the direct or indirect effect of the establishment and spread of invasive plant species during construction. Implementation of specific protective measures shall be required during construction, such as cleaning vehicles prior to off-road use, using weed-free imported soil/material, restricted vegetation removal and requiring topsoil storage.

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Development and implementation of weed management procedures shall be used to monitor and control the spread of weed populations along the construction access and transmission line right-of-ways. Vehicles used in transmission line construction shall be cleaned prior to operation off of maintained roads. Existing vegetation shall be cleared only from areas scheduled for immediate construction work and only for the width needed for active construction activities. Noxious weed management shall be conducted annually to prevent the establishment and spread of invasive plant species. This shall include weed abatement efforts, targeted at plants listed as invasive exotics by the California Exotic Plant Pest Council in their most recent “A” or “Red Alert” list. Only herbicides approved by BLM in California will be used on BLM lands. Herbicide application can only occur on BLM lands with an approved Pesticide Use Proposal (PUP). Pesticide use should be limited to non-persistent pesticides and should only be applied in accordance with label and application permit directions and restrictions for terrestrial and aquatic applications.

**BIO-4a. Prepare and implement a Dust Control Plan.** The project proponent shall (a) pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; (b) pre-water sites up to 48 hours in advance of clearing to control fugitive dust; (c) reduce the amount of disturbed area where feasible; (d) spray all dirt stock-pile areas daily as needed; (e) cover loads in haul trucks or maintain at least 6 inches of free-board when traveling on public roads; (f) pre-moisten, prior to transport, import and export dirt, sand, or loose materials; (g) sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets or wash trucks and equipment before entering public streets; (h) plant vegetative ground cover in disturbed areas to meet the criteria of the revegetation plan; (i) apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands that are unused for 14 consecutive days); and (j) prepare and file with the San Diego Air Pollution Control District, Bureau of Land Management and California Public Utilities Commission a Dust Control Plan that describes how these measures would be implemented and monitored at all locations of the project. This plan shall be developed consistent with the requirements of Mitigation Measure AQ-1.

**BIO-5a. Install fencing or flagging around identified special-status plant species populations in the construction areas.** Prior to the start of construction, a

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qualified biologist shall conduct focused surveys during the appropriate blooming period for special-status plant species for all construction areas. All of the special-status plant locations shall be recorded using a Global Positioning System (GPS), which will be used to site the avoidance fencing/flagging. Special-status plant species shall be avoided to the maximum extent possible by all construction activities. The boundaries of all special-status plant species to be avoided shall be delineated in the field with clearly visible fencing or flagging. The fencing/flagging shall be maintained for the duration of project construction activities.

- BIO-5b. Implement special-status plant species compensation.** Impacts to special-status plant species shall be maximally avoided. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation. Where off-site land preservation is biologically preferred, the land shall contain comparable special-status plant resources as the impacted lands and shall include long-term management and legal protection assurances to the satisfaction of the CPUC or BLM. Land preservation must be completed within 18 months of permit issuance. Where salvage and relocation is demonstrated to be feasible and biologically preferred, it shall be conducted pursuant to an agency-approved plan that details the methods for salvage, stockpiling, and replanting, as well as the characteristics of the receiver sites. Any salvage and relocation plans shall be approved by the permitting agencies prior to project construction. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. Success criteria and monitoring shall also be included in the plan. If salvage and relocation is not possible to the satisfaction of the CPUC or BLM, off-site land preservation shall be required.
- BIO-7a. Cover and/or provide escape routes for wildlife from excavated areas and monitor these areas daily.** All steep trenches and excavations during construction shall be inspected twice daily (i.e., morning and evening) by a qualified biologist to monitor for wildlife entrapment. Large/steep excavations shall be covered and/or fenced nightly to prevent wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.
- BIO-7b. Enforce speed limits in and around all construction areas.** Vehicles shall not exceed 15 miles per hour on unpaved roads and the right-of-way accessing the construction site or 10 miles per hour during the night.

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- BIO-7c. Minimize night construction lighting adjacent to native habitats.** Lighting of construction areas at night shall be the minimum necessary for personnel safety and shall be low illumination, selectively placed, and directed/shielded appropriately to minimize lighting in adjacent native habitats.
- BIO-7d. Prohibit littering and remove trash from construction areas daily.** Littering shall not be allowed by the project personnel. All food-related trash and garbage shall be removed from the construction sites on a daily basis.
- BIO-7e. Prohibit the harm, harassment, collection of, or feeding of wildlife.** Project personnel shall not harm, harass, collect, or feed wildlife. No pets shall be allowed in the construction areas.
- BIO-7f. Obtain and implement the terms of agency permit(s) with jurisdiction federal or state listed species.** If determined necessary, the applicant shall obtain a biological opinion through Section 7 consultation between the Bureau of Land Management and U.S. Fish and Wildlife Service for impacts to federally listed wildlife species and a Section 2081 permit (or consistency determination) from the California Department of Fish and Game for impacts to state listed wildlife species resulting from this project, if applicable. The terms and conditions included in these authorizations shall be implemented, which may include seasonal restrictions, relocation, monitoring/reporting specifications, and/or habitat compensation through restoration or acquisition of suitable habitat.
- BIO-7j. Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds.** If the project must occur during the avian breeding season (February 1st to August 31st, and as early as January 1 for some raptors), SDG&E should work with the California Department of Fish and Game (CDFG), Bureau of Land Management, and the U.S. Fish and Wildlife Service (USFWS) to prepare a Nesting Bird Management, Monitoring, and Reporting Plan (NBMMRP) to address avoidance of impacts to nesting birds.

SDG&E will submit to the agencies the NBMMRP (see following for details) for review and approval prior to commencement of the project during the breeding season. The NBMMRP should include the following:

1. Nest Survey Protocols describing the nest survey methodologies
2. A Management Plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks



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3. A Monitoring and Reporting Plan detailing the information to be collected for incorporation into a regular Nest Monitoring Log (NML) with sufficient details to enable USFWS and CDFG to monitor SDG&E's compliance with Fish and Game Code Sections 3503, 3503.5, 3511, and 3513
4. A schedule for the submittal (usually weekly) of the NML
5. Standard buffer widths deemed adequate to avoid or minimize significant project-related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks
6. A detailed explanation of how the buffer widths were determined
7. All measures SDG&E will implement to preclude birds from utilizing project-related structures (i.e., construction equipment, facilities, or materials) for nesting.

To determine presence of nesting birds that the project activities may affect, surveys should be conducted beyond the project area—300 feet for passerine birds and 500 feet for raptors. The survey protocols should include a detailed description of methodologies utilized by CDFG-approved avian biologists to search for nests and describe avian behaviors that indicate active nests. The protocols should include but are not limited to the size of project corridor being surveyed, method of search, and behavior that indicates active nests.

Each nest identified in the project area should be included in the NML. The NMLs should be updated daily and submitted to the CDFG weekly. Since the purpose of the NMLs is to allow the CDFG to track compliance, the NMLs should include information necessary to allow comparison between nests protected by standard buffer widths recommended for the project (300 feet for passerine birds, 500 feet for raptors) and nests whose standard buffer width was reduced by encroachment of project-related activities. The NMLs should provide a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. The NMLs will allow for tracking the success and failure of the buffers and will provide data on the adequacy of the buffers for certain species.

SDG&E will rely on its avian biologists to determine the appropriate standard buffer widths for nests within the project corridor/footprint to employ based on

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the sensitivity levels of specific species or guilds of avian species. The determination of the standard buffer widths should be site- and species-/guild-specific and data-driven and not based on generalized assumptions regarding all nesting birds. The determination of the buffer widths should consider the following factors:

- a. Nesting chronologies
- b. Geographic location
- c. Existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise)
- d. Type and extent of disturbance (e.g., noise levels and quality—punctuated, continual, ground vibrations—blasting-related vibrations proximate to tern colonies are known to make the birds flush the nests)
- e. Visibility of disturbance
- f. Duration and timing of disturbance
- g. Influence of other environmental factors
- h. Species' site-specific level of habituation to the disturbance.

Application of the standard buffer widths should avoid the potential for project-related nest abandonment and failure of fledging, and minimize any disturbance to the nesting behavior. If project activities cause or contribute to a bird being flushed from a nest, the buffer must be widened.

- BIO-11a. Conduct maintenance activities resulting in vegetation disturbance outside of the bird nesting season or conduct pre-construction nesting bird surveys.** Maintenance activities with the potential to result in direct or indirect habitat disturbance, most notably vegetation management, shall be conducted outside of the bird nesting season to the maximum extent practicable. Where avoidance is not possible, the project proponent shall conduct pre-construction nesting bird surveys consistent with the requirements of the NCCP to determine the presence/absence of active nests in or adjacent to construction areas. If active nests are identified, appropriate avoidance measures would be identified and implemented to prevent

disturbance to the nesting bird(s). If federal or state listed nesting birds are identified, the project proponent shall contact the U.S. Fish and Wildlife Service and/or California Department of Fish and Game to determine the appropriate course of action.

## Visual Resources

**VIS-3a. Reduce visibility of construction activities and equipment.** If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, stationary construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Where practical, construction staging and storage will be screened with opaque fencing from close-range residential views. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 60 days before the start of construction.

**VIS-3b. Reduce construction night-lighting impacts.** SDG&E shall design and install all lighting at construction and storage yards and at staging areas and fly yards such that illumination of the project facilities, vicinity, and nighttime sky is minimized. The Construction Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. SDG&E shall submit a Construction Lighting Mitigation Plan to the CPUC and BLM for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SDG&E shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the CPUC and BLM. The Plan shall include but is not necessarily limited to the following:

- Lighting shall be designed so that exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated, and so that backscatter to the nighttime sky is minimized. The design of the lighting shall

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be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary;

- All lighting shall be of minimum necessary brightness consistent with worker safety; and
- High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

**VIS-3c. Reduce construction impacts to natural features.** No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.

**VIS-3d. Reduce in-line views of land scars.** Construct access or spur roads at appropriate angles from the originating primary travel facilities to minimize extended in-line views of newly graded terrain, when feasible. Contour grading should be used where feasible to better blend graded surfaces with existing terrain. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days prior to the start of construction.

**VIS-3e. Reduce visual contrast from unnatural vegetation lines.** In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for ongoing operation, maintenance, or access shall be returned to preconstruction conditions. In those cases where potential public access is opened by construction routes, SDG&E shall create barriers or fences to prevent public access and shall patrol construction routes to prevent vandalized access and litter cleanup until all areas where vegetation was removed are returned to pre-project state. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days before the start of construction.

**VIS-3f. Minimize vegetation removal.** Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil located in areas to be restored shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil located in developed or disturbed areas is excluded from this measure.

**VIS-3m. Reduce visual impacts resulting from native tree removal.** In the event that ornamental or native trees within the project area will be removed due to project design and grading, SDG&E shall prepare a Tree Replacement Plan to be submitted with the Screening/Landscape Plan. The Tree Replacement Plan shall include but is not limited to the following:

- Tree Removal Locations: Indicate the size, type, and location of each tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required.)
- Assessment of the health and structural conditions, soils, tree size (trunk diameter, basal diameter, height, canopy spread), pest and disease presence, and accessibility of native oak trees to be removed due to project design and grading in order to determine whether existing trees can be transplanted outside the project footprint post-construction. If the assessment determines native oak trees can be transplanted, the oaks would be augmented with additional oak plantings in case the larger trees decline and are lost as a result of the relocation process. If native oak trees cannot be transplanted, the Tree Replacement Plan shall indicate the size, type, and location of each proposed replacement tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required).
- Photos of the site and/or trees to be removed.
- Oak replacement plan focusing on oak tree planting with smaller container trees at higher numbers, recommended at least 5:1 with 15-gallon size trees.

The Tree Replacement Plan must minimize mature tree loss to the degree feasible. The Tree Replacement Plan shall be submitted to the CPUC for approval at least 90 days prior to planned tree removal. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the SDG&E shall prepare and submit the revised Tree Replacement Plan for review and approval.

## Land Use

**LU-1a. Prepare Construction Notification Plan.** Forty-five days prior to construction, SDG&E shall prepare and submit a Construction Notification Plan to the BLM and CPUC for approval. The Plan shall identify the procedures that will be used to inform property owners of the location and duration of construction, identify approvals that are needed prior to posting or publication of construction notices,



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and include text of proposed public notices and advertisements. The Plan shall address at a minimum two of the following components:

- **Public notice mailer.** A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties. The notice shall state the type of construction activities that will be conducted and the location and duration of construction, including all helicopter activities. SDG&E shall mail the notice to all residents or property owners within 1,000 feet of project components. If construction delays of more than 7 days occur, an additional notice shall be prepared and distributed.
- **Newspaper advertisements.** Fifteen days prior to construction within a route segment, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins. The notice shall state when and where construction will occur and provide information about the public liaison person and hotline. If construction is delayed for more than 7 days, an additional round of newspaper notices shall be placed to discuss the status and schedule of construction.
- **Public venue notices.** Thirty days prior to construction, notice of construction shall be posted at public venues such as libraries, community notification boards, post offices, rest stops, community centers, and other public venues to inform affected residents of the purpose and schedule of construction activities.
- **Public liaison person and toll-free information hotline.** SDG&E shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbances. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SDG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.

**LU-1b. Notify property owners and provide access.** To facilitate access to properties obstructed by construction activities, SDG&E shall notify property owners and

tenants at least 24 hours in advance of construction activities and shall provide alternative access if required.

- LU-2. Revise project elements to minimize land use conflicts.** At least 90 days prior to completing final transmission line design for the approved route, SDG&E shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, access roads, or other facilities associated with the project that would occur on the subject property. The notified parties shall be provided at least 30 days in which to identify conflicts with any planned development on the subject property and to work with SDG&E to identify potential reroutes of the alignment that would be mutually acceptable to SDG&E and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. SDG&E shall endeavor to accommodate these reroutes only to the extent that they are reasonable and feasible, do not create a substantial increase in cost, and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned.

SDG&E shall provide a written report to the CPUC/BLM providing evidence of the notice to landowners and copies of any responses to the notice within 30 days of the notice closing date for responses. SDG&E shall also identify in the documentation submitted to the CPUC and BLM whether reroutes recommended by the landowner or SDG&E can be accommodated. Where they cannot be accommodated, the reasons shall be provided. SDG&E shall provide information sufficient for the CPUC and BLM to determine that the reroute creates no more adverse impact than the originally planned alignment location. SDG&E shall include environmental information consistent with that required for a variance. Where a reroute is proposed, the CPUC or BLM will review and agree to accept or reject individual reroutes. The CPUC or BLM may also recommend compromise reroutes for any of the parcels for which responses were provided in a timely fashion.

## Wilderness and Recreation

- WR-1. Provide notice for access restrictions or anticipated closures to wilderness and recreation areas.** SDG&E shall coordinate with the County of San Diego to ensure that proper signage is posted in advance for any access restriction and/or

anticipated closures of wilderness and recreation areas (including trails and pathways) so that recreational users may plan accordingly. Signage shall be posted 30 days prior to construction at public venues such as rest stops, resource management offices, and along access routes to known recreational destinations that would be restricted, blocked, or detoured. Notices shall provide information on alternative recreation areas that may be used during the closure of these facilities.

## Cultural and Paleontological Resources

**CUL-1A. Develop and Implement a Historic Properties Treatment Plan-Cultural Resources Management Plan.** A Historic Properties Treatment Plan–Cultural Resources Management Plan (HPTP-CRMP) shall be prepared to avoid or mitigate impacts for significant cultural resources pursuant to Section 106 Guidelines. An MOA shall be developed among all federal, state, and local agencies to implement the HPTP-CRMP. As part of the HPTP-CRMP, recorded cultural resources that can be avoided shall be listed and demarcated during construction as Environmentally Sensitive Areas (ESAs). All recommended NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 100 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained on SDG&E-owned property, easements, or ROW to protect ESAs from inadvertent trespass for the duration of construction in the vicinity (the ESA fencing should demarcate the limits of the construction areas and where people have to stay within the easement, ROW, or SDG&E-owned property). An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESAs. The HPTP-CRMP shall also define any additional areas that are considered to be of high sensitivity for discovery of buried NRHP-eligible historic properties and CRHR-eligible historic resources, including burials, cremations, or sacred features. These areas of high sensitivity shall also be monitored by qualified archaeologists during construction.

If recommended NRHP-eligible historic properties and CRHR-eligible historic resources are not avoidable, the HPTP-CRMP shall provide a process for evaluating NRHP and CRHR eligibility, consulting with Native Americans about site treatment, working with engineers to avoid resources; suggest various options for reducing adverse effects; and outline a data recovery mitigation plan that would include research design, field sampling, laboratory analysis, reporting, curation, and dissemination of results. Other treatment measures to resolve

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adverse effects could include but are not limited to historical documentation, photography, collection and publishing of oral histories, field work to gather information for research purposes or some form of public awareness or interpretation. A description of alternative treatments to resolve adverse effects other than data recovery excavations could also include:

- Relocation of construction component to portions of historic properties that do not contribute to the qualities that make the resource eligible for the NRHP and CRHR;
- Deeding cemetery or other sensitive areas outside of the substation property and related facilities into open space in perpetuity and providing necessary long-term protection measures;
- Public interpretation including the preparation of a public version of the cultural resources studies and/or education materials for local schools;
- Providing Native American tribes future access to traditional and cultural areas on the Project site, but outside of the substation property and related facilities, after completion of Project construction; and
- SDG&E financial support of existing cultural centers for the preparation of interpretive displays.

The HPTP-CRMP shall include provisions for reporting and curation of artifacts and data at a facility that is approved by the agency. The applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. As part of the HPTP-CRMP, processing of all collected cultural remains shall be described. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species.

A Native American monitor may be required at culturally sensitive locations specified by the lead agency following government-to-government consultation with Native American tribes. The monitoring plan in the CRMP shall indicate the locations where Native American monitors shall be required.

**CUL-1B. Avoid and Protect Significant Resources.** SDG&E shall design and implement a long-term management plan to protect NRHP-eligible, CRHR-eligible sites or sites treated as eligible for project management purposes from direct impacts of project operation and maintenance and from indirect impacts (such as erosion and

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access) that could result from the presence of the project. The plan shall be developed in consultation with the BLM and other consulting parties to design measures that shall be effective against project maintenance impacts, such as vegetation clearing and road and tower maintenance, and project-related vehicular impacts. The plan shall also include a context for understanding the cultural resources within the ROW and describe how protective measures will be undertaken for the cultural resources within the ROW or main project area that may experience operational and access impacts as a result of the project. Measures considered shall include demarcation of Environmentally Sensitive Areas (ESA's) during any subsequent project construction maintenance activities for all historic properties within 50 feet of direct impact areas, permanent restrictive fencing or gates, permanent access road closures, signage, stabilization of potential erosive areas, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting the resources. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to resources. Monitoring of sites selected during consultation with BLM and CPUC shall be conducted annually by a professional archaeologist for a minimum period of 5 years. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photo monitoring stations and written observations. A monitoring report shall be submitted to the BLM and CPUC within 1 month following the annual resource monitoring. The report shall indicate any properties that have been affected by erosion, unauthorized excavation or collecting or vehicle or maintenance impacts. For properties that have been impacted, SDG&E shall provide recommendations for mitigating impacts and for improving protective measures. After 5 years of resource monitoring, the BLM and CPUC shall evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the BLM and CPUC may require that SDG&E revise or refine the protective measures, or alter the monitoring protocol or schedule. If the BLM does not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of the project operation.

If annual monitoring program identifies adverse effects to properties eligible for listing on the NRHP and CRHR from operation or long-term presence of the project, or if, at any time, SDG&E, the BLM or CPUC become aware of such adverse effects SDG&E shall notify the BLM and CPUC immediately and shall implement additional protective measures, as directed by the BLM and CPUC. At



the discretion of the BLM and/or CPUC such measures may include, but not be limited to, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resource studies or protection.

**CUL-1C. Training for Contractor.** All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. SDG&E shall complete training for all construction personnel and retain documentation showing when training of personnel was completed. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that shall be avoided, and that travel and construction activity shall be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the ROW by SDG&E, its representatives, or employees shall not be allowed. Violators shall be subject to prosecution under the appropriate State and federal laws, and violations shall be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

- All construction contracts shall require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.
- SDG&E shall provide training for supervisory construction personnel describing the potential for exposing cultural resources and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources.

**CUL-1D. Construction Monitoring.** Prior to issuance of grading permit(s), the SDG&E shall retain a qualified archaeologist, in accordance with the Secretary of the

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Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61), and Native American observer to monitor ground-disturbing activities in culturally sensitive areas in an effort to identify any unknown resources. A qualified archaeologist shall attend preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans.

All construction activities in environmentally sensitive areas, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant portions of the project site contain sedimentary deposits that have the potential to contain buried cultural resources, then full-time cultural resources monitoring shall be implemented during all phases of ground-disturbing work in these areas. If ESA fencing has been established and the possibility of buried cultural deposits is determined to be low after initial ground-disturbance, the on-site professional archaeologist may determine that full-time monitoring is no longer required in that area. A cultural resource monitor shall meet the Secretary of the Interior Standards Qualifications as a professional archaeologist and, as appropriate, shall be on the lead agencies approved consultants list. The archaeological monitor(s) shall also be familiar with the project area and, therefore, be capable of anticipating the types of cultural resources that may be encountered.

**CUL-1E. Discovery of Unknown Resources.** In the event that previously unknown cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance to allow evaluation of recommended significant cultural resources. The process for handling inadvertent discoveries shall be documented in the CRMP. It shall detail the methods, consultation procedures, and timelines for assessing register eligibility, formulating a mitigation plan, and implementing treatment should avoidance and protection of the resource not be possible. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and SHPO prior to implementation. The archaeologist in coordination with the BLM shall evaluate the significance of the discovered resources based on eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility shall be made by the CPUC and BLM, in consultation with other appropriate agencies and local governments, and the SHPO.

**CUL-1F. Control Unauthorized Access.** SDG&E shall coordinate with the authorized officer of the BLM or local landowner/administrator at least 60 days before construction in order to determine if gates shall be installed on access roads, especially trails that would be dually used as access roads, to prevent unauthorized vehicular access to the ROW. Gate installation shall be required at the discretion of the BLM. On trails proposed for dual use as access roads, gates shall be wide enough to allow horses, bicycles, and pedestrians to pass through. SDG&E shall document its coordination efforts with the BLM of the road/trail and provide this documentation to the CPUC and BLM 30 days prior to construction. Signs prohibiting unauthorized use of the access roads shall be posted on the installed gates.

**CUL-1G. Funding of Law Enforcement Patrols.** To control unauthorized use of project access roads and to provide for the general protection of cultural and natural resources made more accessible as a result of the project facilities, SDG&E shall provide funding to BLM and CPUC for law enforcement patrols for the term of the ROW. The BLM and CPUC will formulate what funding is reasonable to implement the above.

**CUL-1H. Continue Consultation with Native Americans and Other Traditional Groups.** SDG&E shall provide assistance to the BLM and CPUC, as requested by the BLM and CPUC, to continue required government to government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994, and Section 106 of the National Historic Preservation Act) and other traditional groups to identify and assess or mitigate the impact of the approved project on traditional cultural properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses. As directed by the BLM and CPUC, SDG&E shall undertake required treatments, studies, or other actions that result from such consultation. Actions that are required during or after construction shall be defined, detailed, and scheduled in the HPTP-CRMP and implemented by SDG&E and may include the following:

- Information regarding further developments in the project;
- Participation by Native American monitors in any additional surveys, archaeological excavations, and ground-disturbing construction activities;

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- Return of any prehistoric artifacts requiring repatriation under the NAGPRA that are recovered to the appropriate tribe after they have been analyzed by archaeologists;
- The right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains; and
- Copies of all site records, survey reports, or other environmental documents.

**CUL-2. Human Remains.** All location of known Native American human remains shall be avoided through project design and designation as ESAs if within 100 feet of project components. During construction, if human remains are encountered, Native American consultation consistent with NAGPRA shall be undertaken. In addition, if human remains are encountered on non-federal (state, county, or private) lands, California Health and Safety Code §7050.5 states that no further disturbance shall occur until the San Diego County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code §5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Diego County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable time frame. Subsequently, the Native American Heritage Commission shall identify the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98. Avoidance and protection of inadvertent discoveries which contain human remains shall be the preferred protection strategy with complete avoidance of impacts to such resources protected from direct project impacts by project redesign. SDG&E shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. SDG&E shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM and CPUC.

**PALEO-1A. Inventory and evaluate paleontological resources in the Final APE.** Prior to construction, SDG&E shall conduct and submit to the BLM and CPUC for approval an inventory of significant paleontological resources within the affected area, based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.

**PALEO-1B. Develop Paleontological Monitoring and Treatment Plan.** Following completion and approval of the paleontological resources inventory and prior to construction, SDG&E shall prepare and submit to the CPUC and BLM for approval a Paleontological Monitoring Treatment Plan (Plan). The Plan shall be designed by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements, including BLM and County of San Diego Paleontological Resource Guidelines. The qualified paleontologist shall have an MA or PhD in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist). Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Paleontologist shall have a BA in Geology or Paleontology, and a minimum of 1 year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to, a Paleontological Resources Use Permit (for work on public lands administered by BLM). Notices to proceed shall be issued by the lead agency and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.

**PALEO-1C. Monitor Construction for Paleontology.** Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PALEO-01b (Develop Paleontological Monitoring and Treatment Plan), SDG&E shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate (PFYC - Class 3) to high (PFYC - Class 4) paleontological sensitivity within the ECO Substation. Sediments of low, marginal (i.e., PFYC – Class 2), or,



undetermined (PFYC Class 3) sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist.

**PALEO-1D. Conduct Paleontological Data Recovery.** If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the project, in accordance with the approved Treatment Plan per Mitigation Measure PALEO-01B (Develop Paleontological Monitoring and Treatment Plan).

**PALEO-1E. Train Construction Personnel.** Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The project shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas include areas determined to be paleontologically sensitive, as defined on the paleontological sensitivity maps for the project, and must be avoided, and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the ROW by the project, its representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop-work order. The following issues shall be addressed in training or in preparation for construction:

- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.
- The project shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential Environmentally Sensitive Areas, and procedures and

notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.

- Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted, and the project paleontologist shall be notified. Once the find has been inspected and a preliminary assessment made, the project paleontologist will notify the lead agency and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PALEO-1B (Develop Paleontological Monitoring and Treatment Plan).

## Noise

### NOI-1.

**Blasting Plan.** SDG&E will prepare a blasting plan that will reduce impacts associated with construction-related noise and vibrations related to blasting. The blasting plan will be site specific, based on general and exact locations of required blasting and the results of a project-specific geotechnical investigation. The blasting plan will include a description of the planned blasting methods, an inventory of receptors potentially affected by the planned blasting, and calculations to determine the area affected by the planned blasting. Noise calculations in the blasting plan will account for blasting activities and all supplemental construction equipment. The final blasting plan and pre-blast survey shall meet the requirements provided below, as well as those outlined in Mitigation Measure HAZ-4b.

The blasting plan will include a schedule to demonstrate, where feasible, construction blasting to occur infrequently enough that it will not exceed the County's impulsive noise standard because blasting would not occur for more than 25% (15 minutes) during a 1-hour period due to the short time duration of a blast. Where this is not possible, other construction blasting would be coordinated with impacted building occupants to occur in their absence, or at other acceptable times, to avoid nuisance or annoyance complaints. If necessary, the applicant will temporarily relocate impacted residents on an as-needed basis for the duration of the blasting activities. The applicant will be responsible for temporary relocation expenses (i.e.; expenses for temporary housing) incurred by impacted residents if relocation is necessary during blasting activities.

To ensure that potentially impacted residents are informed, the applicant will provide notice by mail to all property owners within 300 feet of the project at least 1 week prior to the start of construction activities.

Blasting would be completed between 7 a.m. and 7 p.m. to be compliant with County of San Diego noise ordinances.

A rock anchoring or min-pile system may be used to reduce the risk of damage to structures during blasting activities. Fair compensation for lost use will be provided to the property owner. Physical damage to potentially vulnerable structures will be addressed by avoiding construction blasting near the structures wherever possible, and, if necessary, non-blasting construction methods will be evaluated. If adversely affected, structures shall be restored to an equivalent condition, and fair compensation for lost use will be provided to the owner.

If necessary, the use of portable noise barriers to reduce excessive noise impacts shall be used between the source and affected occupied properties. Noise barriers that break the line of sight would provide 5 dB attenuation. Increasing the height of the barrier would increase the attenuation of the barrier. A 5 dBA to 10 dBA attenuation is considered reasonably feasible.

Supplemental construction equipment, such as drill rigs, may be used to support blasting. At a distance of 80 feet, drill rig noise emissions are approximately 75 dBA  $L_{eq}$ . Drill rigs, without mitigation, have the potential to cause temporary noise impacts if used less than 80 feet from the property line of an occupied residence. The blasting plan will include measures to reduce noise impacts resulting from the use of drill rigs at less than 80 feet from a property line. Such measures may include temporary noise barriers or limited hours of operation to reduce the impact to within the County standard.

## Transportation and Traffic

**TRA-1. Prepare and implement a Traffic Control Plan.** At minimum, the plan will include the following:

- SDG&E shall encourage carpooling to the construction site to reduce personal vehicle traffic in the project area to the greatest extent possible.

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- SDG&E will consider the specific object sizes, weights, origin, destination, and unique handling requirements, and evaluate alternative transportation approaches.
- Measures such as informational signs and flaggers shall be implemented when equipment may result in blocked roadways, and traffic cones or similar shall be implemented to identify any necessary changes in temporary lane configuration.
- Flaggers and directional guidance for bicyclists along Old Highway 80 shall be used.
- All Caltrans' standards for utility encroachments shall be met.
- The plan shall be prepared in accordance with Caltrans' Manual on Uniform Traffic Control Devices and the Work Area Traffic Control Handbook (WATCH) Manual.
- Clearances or overhead crossings shall conform to regulations of the CPUC and BLM, and the number of crossings shall be minimized.
- New installations under an existing roadbed shall be made by the boring-and-jacking method. No trenching under the traveled way will occur.
- For freeways and expressways, the placement of longitudinal encroachments is prohibited within controlled-access rights-of-way (ROWs).
- Utilities shall not be located in median areas.
- Transverse crossings shall be normal (90°) to the highway alignment where practical. If impractical, skews of up to 30° from normal may be allowed.
- Supports for overhead lines crossing freeways shall be located outside the controlled-access ROW and not on cut-or-fill slopes, and shall not impair sight distances. All installations shall be placed as close to the ROW line as possible. Aboveground utilities shall be outside of the clear recovery zone (20 feet from edge-of-travel way for conventional highways and 30 feet for freeways and expressways). Allowance shall be made for future widening of the highways.
- New installations shall not impair sight distances.
- SDG&E shall coordinate in advance with the applicants for the other two connected actions. This effort shall include coordinating the timing of construction of the various projects to reduce potential conflicts.

- SDG&E shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The County will then notify respective police, fire, ambulance, and paramedic services. SDG&E shall notify counties and cities of the proposed locations, nature, timing, and duration of any construction activities, and advise of any access restrictions that could impact their effectiveness.

SDG&E shall provide a draft copy of the Traffic Control Plan to the agencies listed for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&E, and plan revisions will address each comment to the satisfaction of the commenting agency. The final plan will be submitted to the CPUC and BLM with input from commenting agencies and provided to SDG&E for implementation during all construction activities.

**TRA-2. Repair roadways damaged by construction activities.** If damage to roads occurs, SDG&E shall coordinate repairs with the affected public agencies to ensure that any impacts to area roads are adequately repaired at SDG&E's cost. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Care shall be taken to prevent damage to roadside drainage structures. Roadside drainage structures and road drainage features (e.g., rolling dips) shall be protected by regrading and reconstructing roads to drain properly. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction.

## Public Health and Safety

**HAZ-1a. Hazardous Materials Management Plan.** Prior to approval of final construction plans, SDG&E shall prepare an HMMP for the construction phase of the project, which shall be reviewed and approved by the appropriate agency, and shall include the following components:

- The plan shall identify all hazardous materials that will be present on any portion of the construction site, including, but not limited to, fuels, solvents, and petroleum products. The plan shall address storage, use, transportation, and disposal of each hazardous material anticipated to be used at the site. The plan shall establish inspection procedures, storage requirements, storage



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quantity limits, inventory control, nonhazardous product substitutes, and disposition of excess materials.

- The plan shall identify secondary containment and spill prevention countermeasures, as well as a contingency plan to identify potential spill hazards, how to prevent their occurrence, and responses for different quantities of spills that may occur. Secondary containment and countermeasures shall be in place throughout construction so that if any leaks or spills occur, responses will be made immediately.
- The plan shall identify materials (and their locations) that will be on site and readily accessible to clean up small spills (i.e., spill kit, absorbent pads, and shovels). Such emergency spill supplies and equipment shall be clearly marked and located adjacent to all areas of work and in construction staging areas. The plan shall identify the spill-response materials that must be maintained in vehicles and substation sites during construction and procedures for notification to the appropriate authorities.
- The plan shall identify adequate safety and fire suppression devices for construction-related activities involving toxic, flammable, or explosive materials (including refueling construction vehicles and equipment). Such devices shall be readily accessible on the project site, as specified by the County's Fire Department and per the Uniform Building Code and Uniform Fire Code. The plan shall be included as part of all contractor specifications and final construction plans to the satisfaction of the appropriate agency. The plan shall also identify requirements for notices to federal and local emergency response authorities and shall include emergency response plans.

Prior to construction, all contractor and subcontractor personnel shall receive training regarding the components of the HMMP, as well as applicable environmental laws and regulations related to hazardous materials handling, storage, and spill prevention and response measures.

SDG&E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the plan for all construction activities. The plan shall be submitted to BLM and CPUC at least 30 days prior to construction.

**HAZ-1b. Health and Safety Program.** Prior to approval of final construction plans, SDG&E shall prepare a Health and Safety Program for each applicable phase of

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the project (i.e., construction, operation, and decommissioning). The program shall be developed to protect both workers and the general public during all phases of the project. The program shall be implemented to educate construction workers about the hazards associated with the particular project site and the safety measures that must be taken to prevent injury. The program shall include standards regarding occupational safety, safe work practices for each task, hazard training requirements for workers, and mechanisms for documentation and reporting.

Regarding occupational health and safety, the program should identify all applicable federal and state occupational safety standards; establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses; OSHA standard practices for safe use of explosives and blasting agents; and measures for reducing occupational EMF exposures); establish fire safety evacuation procedures; and define safety performance standards (e.g., electrical system standards and lightning protection standards). The program should include a training program to identify hazard training requirements for workers for each task and establish procedures for providing required training to all workers. The program should include worker training regarding how to identify potentially contaminated soils and/or groundwater. Documentation of training and a mechanism for reporting serious accidents to appropriate agencies shall be established.

The program should identify requirements for temporary fencing around staging areas, storage yards, and excavation areas during construction or decommissioning activities. Such fencing should be designed to restrict transient traffic, off-highway vehicle (OHV) use, and the general public from accessing areas under construction and should be removed once construction or decommissioning activities are complete. The program should also identify appropriate measures to be taken during operation of the project to limit public access to hazardous facilities (e.g., permanent fencing, locked access). In order to inform workers and the general public of the dangers of abandoned mines, pamphlets with the “Stay Out-Stay Alive” information used by federal and state governments should be distributed as part of the program.

SDG&E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the program for all construction activities. The program shall be submitted to BLM and CPUC at least 30 days

prior to construction. In addition, SDG&E shall implement Sempra Energy's Health and Safety Program during the operational phase of the project.

**HAZ-1c. Waste Management Plan.** Prior to approval of final construction plans, SDG&E shall prepare a Waste Management Plan, which shall determine waste procedures, waste storage locations, waste-specific management and disposal requirements, inspection procedures, and waste minimization procedures.

SDG&E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the plan for all construction activities. The plan shall be submitted to CPUC and BLM at least 30 days prior to construction.

**HAZ-2b. Contingency plan for encountering contaminated soils.** If soil or groundwater contamination is suspected or encountered during grading or excavation activities (e.g., unusual soil discoloration or strong odor), SDG&E's contractors or subcontractors shall immediately stop work and notify the designated environmental field representative. All work in the area of suspected contamination shall cease, the work area shall be cordoned off, and the environmental field representative shall implement appropriate health and safety procedures. Work outside the suspected area may continue as determined by the environmental field representative.

Preliminary samples of the soil, groundwater, or suspected material shall be taken by OSHA-trained individuals and sent to a California Certified Laboratory for characterization. If the sample testing determines that contamination is not present, work shall continue at the previously suspected site. If contamination is found above regulatory limits, however, the appropriate regulatory agency (e.g., RWQCB or Certified Unified Program Agency (CUPA)) responsible for responding to and providing environmental oversight of the region shall be notified in accordance with state or local regulations. In addition, SDG&E shall contact the appropriate regulatory agencies for the State of California (e.g., DTSC or RWQCB) and the County to plan options for handling, treating, and/or disposing of materials.

Documentation of the suspected contamination shall be made in the form of a report, identifying the location and potential contamination, as well as the process used for sampling. Results of laboratory testing and recommended resolutions for

handling and excavating materials found to exceed regulatory requirements shall be submitted to the BLM and CPUC for review and approval.

**HAZ-3. Soil testing for lead contamination.** Soil samples shall be collected and tested from all excavation sites within 500 feet of any area identified as a current or historical shooting range to determine the presence of lead and extent of any contamination. The sampling and testing shall be conducted by a California licensed professional and sent to a California Certified Laboratory. A report documenting the areas proposed for sampling and the process used for sampling and testing shall be submitted to the project's lead agency for review and approval at least 60 days prior to excavation. Results of the laboratory testing and recommended resolutions for handling and excavating any materials found to exceed regulatory requirements shall be submitted to the project's lead agency 30 days prior to excavation.

In addition, a Soil/Lead Contamination Handling Plan shall be prepared to address appropriate procedures in the event that lead contamination is discovered as a result of soil testing. This plan shall contain provisions for a lead-awareness program for workers, as well as guidelines for the identification, removal, transport, and disposal of lead-impacted materials. This plan shall also emphasize that all activities within, or in close proximity to, contaminated areas must follow applicable environmental and hazardous waste laws and regulations. This plan shall be submitted to the project's lead agency 30 days prior to excavation.

Documentation of any confirmed or suspected contamination identified during testing or excavation shall be made in the form of a report identifying the location and potential contamination, as well as the process used for sampling. Results of laboratory testing and recommended resolutions for handling and excavating materials found to exceed regulatory requirements shall be submitted to the CPUC and BLM for review and approval. (SDG&E to verify whether applicable as part of the Mitigation Monitoring, Compliance, and Report Plan notice to proceed process.)

**HAZ-4a. Safety Assessment.** Prior to commencing construction activities, SDG&E shall conduct a safety assessment to describe potential safety issues associated with the project, how safety prevention measures would be implemented, where medical aid kits would be located, the appropriate response action for each safety hazard, and procedures for notifying the appropriate authorities. The assessment shall address issues such as site access, construction hazards, safe work practices,

security, heavy equipment transportation, traffic management, emergency procedures, and fire control.

**HAZ-4b. Blasting Plan.** If blasting is deemed necessary for the construction of project components, SDG&E shall conduct a pre-blast survey and prepare a blasting plan. A written report of the pre-blast survey and final blasting plan shall be provided to the appropriate regulatory agency and approved prior to any rock removal using explosives. In addition to any other requirements established by the appropriate regulatory agencies, the pre-blast survey and blasting plan shall meet the following conditions, as well as those outlined in Mitigation Measure NOI-1:

The pre-blast survey shall be conducted for structures within a minimum radius of 1,000 feet from the identified blast site to be specified by SDG&E. Sensitive receptors that could reasonably be affected by blasting shall be surveyed as part of the pre-blast survey. Notification that blasting would occur shall be provided to all owners of the identified structures to be surveyed prior to commencement of blasting. The pre-blast survey shall be included in the final blasting plan.

The final blasting plan shall address air-blast limits, ground vibrations, and maximum peak particle velocity for ground movement, including provisions to monitor and assess compliance with the air-blast, ground vibration, and peak particle velocity requirements. The blasting plan shall meet criteria established in Chapter 3 (Control of Adverse Effects) in the Blasting Guidance Manual of the U.S. Department of Interior Office of Surface Mining Reclamation and Enforcement.

The blasting plan shall outline the anticipated blasting procedures for the removal of rock material at the proposed turbine foundation locations. The blasting procedures shall incorporate line control to full depth and controlled blasting techniques to create minimum breakage outside the line control and maximum rock fragmentation within the target area. Prior to blasting, all applicable regulatory measures shall be met. SDG&E, its general contractor, or its subcontractor (as appropriate) shall keep a record of each blast for at least 1 year from the date of the last blast.

**PS-2. Determine proper grounding procedures and implement appropriate grounding measures.** As part of the project siting and construction process, SDG&E's contractor(s) shall identify objects (such as fences, conductors, and pipelines) that have the potential for induced voltages and work with the



affected parties to determine proper grounding procedures (Note: CPUC General Order 95 and the NESC do not have specific requirements for grounding). SDG&E shall install all necessary grounding measures prior to energizing the line. At least 30 days prior to energizing the line, SDG&E shall notify in writing all property owners within and adjacent to the project's ROW regarding the date the line is to be energized, subject to the review and approval of the appropriate regulatory agency.

The written notice shall provide a contact person and telephone number for answering questions regarding the line and guidelines on what activities should be limited or restricted within the ROW. The written notice shall describe the nature and operation of the line, and SDG&E's responsibilities with respect to grounding all conducting objects. In addition, the notice shall describe the property owner's responsibilities with respect to notification for any new objects that may require grounding and guidelines for maintaining the safety of the ROW.

SDG&E shall respond to and document all complaints received and the responsive action taken. These records shall be made available to the appropriate regulatory agency for review upon request. SDG&E shall refer all unresolved disputes to the approving agency for resolution.

## Air Quality

**AQ-1.** The following measures shall be incorporated to reduce fugitive dust and other criteria pollutant emissions during construction activities:

- Rock aprons or rattle plates will be installed as needed at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site.
- All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with nontoxic soil stabilizers as needed to control fugitive dust.
- All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles.
- Exposed stockpiles (e.g., dirt, sand, etc.) will be covered and/or watered or stabilized with nontoxic soil binders as needed to control emissions.

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- Trucks transporting bulk materials will be completely covered unless 2 feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material.
- Movement of bulk material handling or transfer will be stabilized prior to handling or at a point of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
- Traffic speeds on unpaved roads and the ROW will be limited to 15 miles per hour.
- Vehicle idling time will be limited to a maximum of 5 minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task.
- Road graders used during site development activities will be equipped with a CARB-verified Level 2 diesel emission control strategy or a comparable diesel-control technology that will reduce inhalable particulate matter (PM<sub>10</sub>) emissions by 50% or more.
- If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule.
- All off-road, diesel-powered construction equipment will be kept in good tune and maintained according to the manufacturer's specifications.
- Construction equipment will use electric-powered motors where feasible.
- The construction contractor will prepare and implement a high-wind dust control plan and terminate soil disturbance when winds exceed 25 miles per hour.
- The construction contractor will require 90-day, low-NO<sub>x</sub> tune-ups for off-road equipment.
- Diesel particulate filters will be utilized on heavy equipment where feasible.

- Construction activities will comply with all applicable SDAPCD rules and regulations.

**AQ-2.** All off-road diesel engines with a rated output of greater than 50 horsepower will, at a minimum, meet the Tier 2 California Emissions Standards for Off-Road Compression Ignition Engines. If reasonably available, Tier 3 engines will be employed. SDG&E shall provide verification that the construction fleet meets the requirements identified as part of this mitigation measure.

## Water Resources

**HYD-1.** **A Stormwater Pollution Prevention Plan shall be prepared to reduce soil erosion during construction.** In compliance with the new SWRCB's NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002, effective July 1, 2010), SDG&E shall prepare a project-specific SWPPP before construction begins, and it shall be kept on site throughout the construction process. The SWPPP shall include the following:

- Identification of pollutant sources and non-stormwater discharges associated with construction activity.
- Specifications for BMPs that shall be implemented during project construction to minimize the potential for accidental releases and runoff from the construction areas, including temporary construction yards, pull sites, and helicopter landing zones. Specifications shall include:
  - A plan for training construction crews
  - A plan for monitoring and inspecting BMPs and site conditions
  - A plan for sampling and analysis of pollutants (as necessary).
- Where applicable, the following shall apply:
  - Construction impacts shall be minimized to the greatest extent possible
  - Upon completion of construction phases, roadways shall be reduced to minimum widths needed
  - Areas disturbed during construction shall be revegetated to their natural states

## Appendix C Adopted Mitigation Measures

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- Construction roadways shall follow natural contours to the extent practical and be designed to minimize stream crossings, avoid wetlands, and maintain surface water runoff patterns to prevent erosion
- CDFG guidelines for culverts shall be followed to minimize long-term maintenance and meet a 10-year rain event to minimize trapping of sediment.
- Where applicable, the following shall apply to reduce the release of contaminants to the local surface and groundwater:
  - For on-site storm drain inlets, mark all inlets with the words “No Dumping! Flows to Sensitive Habitat” or similar.
  - For landscaping, show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. Show self-retaining landscape, if any. State that final landscape plans will preserve existing native trees, shrubs, and ground cover will cover maximum extent possible.
  - Design landscaping to minimize irrigation, runoff, and use of pesticides and fertilizers that contribute to stormwater pollution. Select plants that are appropriate for site soils, slopes, climate, wind, sun, rain, land use, ecological consistency, and plant interactions.
  - For outdoor storage of equipment or materials, show storage areas and how they will be covered and what structural features or grading will be incorporated to prevent pollutants from discharging from the site.
  - Designate areas for vehicle/equipment repair, maintenance, and cleaning, and document how these areas will be contained to prevent pollutant runoff.
  - For leaking or failure of large power transformers, have 100% containment at each power transformer.

**HYD-2. Avoidance and preventative measures to protect local groundwater during excavation.** Prior to excavation, a qualified geologist/hydrologist shall determine the depth of groundwater in areas where excavation would occur. The project shall be designed to avoid areas of shallow groundwater where feasible. In such areas where groundwater cannot be avoided during excavation, the site shall be

dewatered during construction, and materials that could contaminate the groundwater shall be kept at least 200 feet from the dewatering activities. An NPDES permit shall be obtained for proper disposal of water. Treatment may be required prior to discharge.

**HYD-3. Identification of sufficient water supply.** Prior to construction SDG&E will prepare comprehensive documentation that identifies one or more confirmed, reliable water sources that when combined meet the project's full water supply construction needs. Documentation will consist of the following:

- *Preparation of a groundwater study.* For well water that is to be used, the applicant will commission a groundwater study by a qualified hydrogeologist to assess the existing condition of the underlying groundwater/aquifer and all existing wells (with owner's permission) in the vicinity of proposed well location/water sources. The groundwater study will evaluate aquifer properties and aquifer storage. The groundwater study will estimate short and long-term well water supplies from each well proposed to be used, and documentation indicating that each well is capable of producing the total amount of water to be supplied for construction from each well. The groundwater study will estimate short- and long-term impacts of the use of the well(s) on the local groundwater production (short-term extraction for construction water and ongoing O&M water), on all project wells, and on other wells in the project area. The groundwater study will include an assessment of the potential for subsidence brought on by project-related water use in the area. The applicant will provide demonstration of compliance with all applicable laws and regulations and will obtain a County of San Diego Major Use Permit for use of any proposed well prior to construction.
- *Documentation of Purchased Water Source(s).* For water that is to be purchased from one or more water/utility district(s), the applicant shall provide written documentation from such district(s) indicating the total amount of water to be provided and the time frame that the water will be made available to the project. The Sweetwater Authority has provided written confirmation of water availability to support the project.

Total confirmed water supplies from the combination of above documented sources shall equal the total gallons of water needed through construction of the project.



**HYD-5. Implementation of creek-crossing procedures.** Where creek crossings can be completed during dry season, with no flows present in the creek, seasonally timed restorative open trenching will be completed. This procedure will use minimum trench widths. Trench cut material will not be placed outside of the creek bed and outside of 100-year inundated areas. Trench fill will be compacted and replaced to existing conditions, including matching existing creek bed gradations, and restoring vegetation. Open trenching restoration will be completed prior to any wet season flows, and will include anti-erosion action plans for any unplanned rainfall during construction. The applicant shall obtain all required permits prior to completing open trenching through drainages. In any case, flows will be isolated from open trenching by best management practices mandated by the General Construction Permit. Areas of trenching would be restored and/or vegetated at completion of work. Where creek crossing cannot be completed during the dry season creek crossing shall use jack-and-bore procedures to avoid direct impacts and shall be conducted in a manner that does not result in sediment-laden discharge or hazardous materials release to the water body. The following measures shall be implemented during horizontal boring (jack-and-bore) operations:

- (1) Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages.
- (2) Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention).
- (3) Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times.
- (4) Immediately following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion, and temporary sediment barriers shall be left in place until restoration is deemed successful.

The applicant shall obtain the required permits prior to conducting creek crossing work. Required permits may include ACOE CWA Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement 1602. The applicant shall implement all pre- and post-construction conditions identified in the permits issued. The plan shall be submitted to the CPUC, County of San Diego, and ACOE 60 days prior to construction.

**HYD-6. Horizontal Directional Drill Contingency Plan.** If horizontal directional drilling is to be used during construction SDG&E shall prepare a Horizontal Directional Drill Contingency Plan to address procedures for containing an inadvertent release of drilling fluid (frac-out). The plan shall contain specific measures for monitoring frac-outs, for containing drilling mud, and for notifying agency personnel. The plan shall also discuss spoil stockpile management, hazardous materials storage and spill cleanup, site-specific erosion and sediment control, and housekeeping procedures, as described in the SWPPP. The plan shall be submitted to the CPUC, BLM, and ACOE 60 days prior to construction.

SDG&E shall obtain the required permits prior to conducting work associated with horizontal directional drilling activities. Required permits may include U.S. Army Corps of Engineers Clean Water Act Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement Section 1602. SDG&E shall implement all pre- and post-construction conditions identified in the permits issued for the horizontal directional drilling.

**HYD-7. Bury power line below 100-year scour depth.** At locations where the buried power line is to be at or adjacent to a streambed capable of scour, the power line shall be located below the expected depth of scour from a 100-year flood, or otherwise protected from exposure by scour that, for purposes of this mitigation measure, also includes lateral (stream bank) erosion and potential scour associated with flows overtopping or bypassing a culvert or bridge crossing. During final design, a registered civil engineer with expertise in hydrology, hydraulics, and river mechanics shall make a determination of where the underground line could be at risk of exposure through scour or erosion from a 100-year event.

## Geology, Mineral Resources, and Soils

- GEO-1. Erosion Control and Sediment Transport Control Plan.** The Erosion Control and Sediment Transport Control Plan would be included with the project grading plans submitted to the County for review and comment. The plan would be submitted to CPUC and BLM a minimum of 60 days prior to project design and would be prepared in accordance with the standards provided in the Manual of Erosion and Sedimentation Control Measures and consistent with practices recommended by the Resource Conservation District of Greater San Diego County. Implementation of the plan would help stabilize soil in graded areas and waterways and reduce erosion and sedimentation. The plan would designate BMPs that would be implemented during construction activities. Erosion control efforts, such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (e.g., flagging), vehicle mats in wet areas, and retention/settlement ponds, would be installed before extensive soil clearing and grading begins. Appropriate stabilization measures, such as mulching or seeding, would be used to protect exposed areas during construction activities. Revegetation plans, the design and location of retention ponds, and grading plans would be submitted to the CDFG and ACOE for review in the event of construction near waterways. In disturbed areas where construction equipment has caused compaction of soils (e.g., staging areas, structure sites, temporary spur roads, etc.), soils would be decompacted as necessary prior to seeding, and reclamation would occur to enhance revegetation and reduce potential for erosion.
- GEO-2. Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.** The design-level geotechnical studies to be performed by SDG&E shall identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures shall be utilized for protection of reinforcement, concrete, and metal-structural components against corrosion, including use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform to industry standards of care and ASTM

standards for field and laboratory testing. Design shall conform to applicable sections of the County of San Diego grading codes, CBC, and the standard specifications for public works construction. The geotechnical studies prepared by a certified geologist shall be submitted to CPUC and BLM 60 days prior to construction of proposed structures.

**GEO-3. Conduct geotechnical investigations.** The applicant shall perform design-level geotechnical investigations to evaluate the potential for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures that meet CBC and IEEE design parameters shall be incorporated into the project designs. Appropriate measures for project facilities could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in underground cables to allow ground deformations without damage to structures. The geotechnical investigations prepared by a certified geologist shall be submitted to CPUC and BLM 60 days prior to construction of proposed structures.

**GEO-4. Facilities inspections conducted following major seismic event.** If large levels of ground shaking (such as Modified Mercalli Intensity VI or greater) are experienced or a major earthquake (magnitude 6.0 and above) occurs along the Elsinore Fault, a professional licensed geologist, geotechnical engineer, and structural engineer hired by SDG&E shall perform facilities inspections as quickly as possible. Careful examination shall be conducted of all project facilities. Any required repair or needed improvements shall be implemented as soon as feasible to ensure that the integrity of project facilities has not been compromised.

## Public Services and Utilities

**PSU-1a. Notification of utility service interruption.** Prior to construction in which a utility service interruption is known to be unavoidable, SDG&E shall notify members of the public affected by the planned outage by mail of the impending interruption, and shall post flyers informing the public of the service interruption in neighborhoods affected by the planned outage. Copies of notices and dates of public notification shall be provided to the applicable lead agency.

**PSU-1b. Protect underground utilities.** Prior to construction of the transmission/gen-tie line, SDG&E shall submit to the CPUC and BLM written documentation, including evidence of review by the appropriate jurisdictions, including the following:

- Construction plans designed to protect existing utilities and that show the dimensions and location of the finalized alignment
- Records that the applicant provided the plans to affected jurisdiction for review, revision, and final approval
- Evidence that the project meets all necessary local requirements
- Evidence of compliance with design standards
- Copies of necessary permits, agreements, or conditions of approval
- Records of discretionary decisions made by the appropriate agencies.

**PSU-1c. Coordinate with utility providers.** SDG&E shall coordinate with all applicable utility providers with facilities located within or adjacent to the project to ensure that design does not conflict with other facilities prior to construction. In the event of a conflict, the project will be aligned vertically and/or horizontally as appropriate to avoid other utilities and provide adequate operational and safety buffering. Alternately, the other existing facilities may be relocated. Long-term operations and maintenance of the project will be negotiated through easement, purchased ROW, franchise agreement, or joint use agreement.

## Fire and Fuels Management

**FF-1. Develop and implement a Construction Fire Prevention/Protection Plan.** San Diego Gas & Electric Company (SDG&E) shall develop a multiagency Construction Fire Prevention/Protection Plan in consultation with the California Department of Forestry and Fire Protection (CAL FIRE), San Diego Rural Fire Protection District (SDRFPD), and San Diego County Fire Authority (SDCFA) to the satisfaction of the CPUC. SDG&E shall monitor construction activities to ensure implementation and effectiveness of the plan. The final plan will be approved by the CPUC prior to the initiation of construction activities and shall be implemented during all construction activities by SDG&E. At minimum, the plan will include the following:

- Procedures for minimizing potential ignition



## Appendix C Adopted Mitigation Measures

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- vegetation clearing
- fuel modification establishment
- parking requirements
- smoking restrictions
- hot work restrictions
- Red Flag Warning restrictions
- Fire coordinator role and responsibility
- Fire suppression equipment on site at all times work is occurring
- Requirements of Title 14 of the California Code of Regulations (CCR), Article 8 #918 “Fire Protection” for private land portions
- Access road widening (28-foot County roads, 18-foot-wide spur roads)
- Applicable components of the SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009)
- Emergency response and reporting procedures
- Emergency contact information
- Worker education materials; kick-off and tailgate meeting schedules
- Other information as provided by CAL FIRE, SDRFPD, SDCFA, CPUC, and Bureau of Land Management (BLM).

Additional restrictions will include the following:

- During the construction phase of the project, SDG&E shall implement ongoing fire patrols. SDG&E shall maintain fire patrols during construction hours and for 1 hour after end of daily construction, and hotwork
- Fire Suppression Resource Inventory – In addition to 14 CCR 918.1(a), (b), and (c), SDG&E shall update in writing the 24-hour contact information and on-site fire suppression equipment, tools, and personnel list on a quarterly basis and provide it to the CAL FIRE, SDRFPD, and SDCFA.
- During Red Flag Warning events, as issued daily by the National Weather Service in state responsibility areas (SRAs) and local responsibility areas (LRA), all non-essential, non-emergency construction and maintenance activities shall cease or be required to operate under Hot Work Procedure.

## Appendix C Adopted Mitigation Measures

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- SDG&E and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF.
- All construction crews and inspectors shall be provided with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon ignition.
- Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crewmembers as-needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect.
- Each member of the construction crew shall be trained and equipped to extinguish small fires with hand-held fire extinguishers in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 feet of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Prevention/Protection Plan.

SDG&E will provide a draft copy of the Construction Fire Prevention/Protection Plan to the CAL FIRE, SDRFPD, and SDCFA for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&E and revisions to the plan will address each comment to the satisfaction of the CPUC. The final plan will be approved by the CPUC with input from CAL FIRE, SDRFPD, SDCFA, and BLM, as desired, prior to the initiation of construction activities and provided to SDG&E for implementation during all construction prior to the initiation of construction activities. All construction work on the ECO Substation Project shall follow the Construction Fire Prevention/Protection Plan guidelines and commitments.

**FF-2.      Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009) to Create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan.** The revised plan

## Appendix C Adopted Mitigation Measures

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will address the ECO Substation Project and will be implemented during all operational maintenance work associated with the project for the life of the project. Important fire safety concepts that will be included in this document are as follows:

- Implement existing practices including Electric Standard Practice 113.1, Maintenance of existing Remote Automated Weather Stations and territory-wide weather system monitoring, adjusted system reclosing policies (patrols), replacement of wood poles with steel in priority areas, and additional measures as may be developed, participation in San Diego County FireSafe Council and other public outreach.
- Guidance on where maintenance activities may occur (non-vegetated areas, cleared access roads, and work pads that are approved as part of the project design plans) Fuel modification buffers required by the Fire Protection Plan (FPP)
- When vegetation work will occur (prior to any other work activity)
- Timing of vegetation clearance work to reduce likelihood of ignition and or fire spread
- Coordination procedures with fire authority
- Integration of the project's Construction Fire Prevention/Protection Plan content
- Personnel training and fire suppression equipment
- Fire safety coordinator role as manager of fire prevention and protection procedures, coordinator with fire authority and educator
- Communication protocols
- Incorporation of CAL FIRE, San Diego Rural Fire Protection District (SDRFPD), and SDCFA reviewed and approved Response Plan mapping and assessment
- Other information as provided by CAL FIRE, SDRFPD, SDCFA, BLM, and CPUC.

SDG&E will provide a draft copy of the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational; Maintenance Plan to CAL FIRE, SDRFPD, SDCFA, BLM, and CPUC for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to

SDG&E and plan revisions will address each comment to the satisfaction of the CPUC. The final plan will be approved by the CPUC prior to energizing the project and provided to SDG&E for implementation during all operational maintenance activities.

**FF-3. Provide Assistance to San Diego Rural Fire Protection District (SDRFPD) and San Diego County Fire Authority (SDCFA).** Provide assistance to SDRFPD and SDCFA to improve the response and firefighting effectiveness near electrical substations, transmission lines, and aerial infrastructure based on project risk and fire protection needs. Assistance by SDG&E shall include providing funding for one SDCFA Fire Code Specialist II position to enforce existing fire code requirements, including but not limited to implementing required fuel management requirements (e.g., defensible space), in priority areas to be identified by the SDCFA for the life of the project. All fuel management activities shall be in accordance with CEQA Guidelines Section 15304 (i), which indicates that the minor land alternation activities will not have a significant effect on the environment, as the activities will not result in the taking of endangered, rare, or threatened plant or animal species or significant erosion and sedimentation of surface waters. In addition, SDG&E is to provide funding to allow SDCFA to employ up to four volunteer/reserve firefighters as part-time code inspectors on a stipend basis for up to 90 days per year for the life of the project. The funding for the SDCFA Fire Code Specialist II position and the four volunteer/reserve firefighters as part-time code inspectors will be provided through proportional contributions, to be determined by CPUC and BLM, from SDG&E (and the other applicants) to the SDCFA prior to construction.

A fixed annual fire mitigation fee of approximately \$116,600 will be provided by SDG&E to SDRFPD for mitigation funding. The funding will be utilized to assist with the purchase and maintenance of a Type I engine with an aqueous film forming foam (AFF) apparatus with a deck gun to apply a heavy stream. In addition, the funding will be utilized to provide for a third volunteer stipend to staff the engine with firefighters and training for electrical firefighting for 10 personnel (2 per year on a 5-year rotation). The fire mitigation fee will be paid annually during the life of the project and terminated upon decommissioning of the substation and related facilities.

**FF-4. Customized Fire Protection Plan for Project.** A draft Fire Protection Plan (FPP) will be submitted to CAL FIRE, SDRFPD, and SDCFA at least 90 days before the start of any construction activities. Comment on the draft FPP shall be provided to SDG&E and SDG&E shall resolve each comment in consultation with each responsible agency. The final FPP shall be approved by the CPUC prior to the initiation of construction activities. The FPP will include, at minimum, the following:

- San Diego County FPP Content Requirements (<http://www.sdcounty.ca.gov/dplu/docs/Fire-Report-Format.pdf>)
- Rural Fire Protection District Content Requirements
  - Provisions for fire safety and prevention
  - Water supply
  - Fire suppression/detection systems – built-in detection system with notification
  - Secondary containment
  - Site security and access
  - Emergency shut-down provisions
- Integration into plans prepared to satisfy Mitigation Measures FF-1 and FF-2.

The FPP will be incorporated into MM FF-1, the Construction Fire Prevention/Protection Plan, and MM FF-2, the Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009)<sup>1</sup> Operational Maintenance Plan. The Customized Fire Protection Plan will incorporate clarifications and additional ECO Substation Project APMs described in Section B of this EIR/EIS.

**FF-6. Funding for FireSafe Council.** Provide funding for Boulevard/Jacumba/La Posta FireSafe Council with a clarified focus of coordinating a Community Wildfire Protection Plan (CWPP) and Evacuation Plan. Funding for the Boulevard/Jacumba/La Posta FireSafe Council will enable this newly formed organization a means to proactively complete these plans, provisions for applying for grant funding, and ultimately, for implementing fuel reduction and evacuation

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<sup>1</sup>[http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/Attach%204\\_07-B%20Wildland%20Fire%20Prevention%20and%20Safety%20Practice.pdf](http://www.cpuc.ca.gov/environment/info/dudek/ECOSUB/Attach%204_07-B%20Wildland%20Fire%20Prevention%20and%20Safety%20Practice.pdf).



plans. Funding will be a lump sum, one-time amount with SDG&E providing fair share of CWPP and Evacuation Plan preparation.

**FF-7. Preparation of Disturbed Area Revegetation Plan.** All areas disturbed during construction activities that will not be continuously included in the long-term maintenance access right-of-way (ROW) will be provided native plant restoration in order to prevent non-native, weedy plants from establishing. Disturbed areas that will be included in the long-term maintenance program will not be revegetated as any plants that establish in these areas will be removed on an ongoing (at least annual) basis.

Mitigation Measure FF-7 corresponds with Mitigation Measure Bio-1d and is not a duplicative plan but will be implemented under the biological monitoring program. It directs that the temporary disturbance areas will be revegetated with native plants common to the area through direction detailed in a Habitat Restoration Plan. The Habitat Restoration Plan will be prepared to restore native habitat and to reduce the potential for non-native plant establishment. The restoration plan will incorporate a Noxious Weeds and Invasive Species Control Plan to assist in restoring the construction area to the prior vegetated state and lessen the possibility of establishment of non-native, flammable plant species. A copy of the Revegetation Plan will be provided to the CPUC and BLM.

## **APPLICANT PROPOSED MEASURES**

The following APMs were proposed by SDG&E in its August 2009 Proponent's Environmental Assessment submitted to the California Public Utilities Commission (CPUC). The impact analysis for the 138 kV transmission line assumes that all APMs defined in the following table would be implemented.

## Appendix C Adopted Mitigation Measures

**Table 2. APMs Proposed by SDG&E**

APM No.	Description
<b>Aesthetics/Visual Resources</b>	
ECO-AES-04	Construction activities will be kept as clean and inconspicuous as possible. Where practical, construction storage and staging will be screened with opaque fencing from close-range residential views.
<b>Air Quality</b>	
ECO-AIR-01	Rock aprons or rattle plates will be installed, as needed, at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site.
ECO-AIR-02	All active construction areas, unpaved access roads, parking areas, and staging areas will be watered or stabilized with non-toxic soil stabilizers as needed to control fugitive dust.
ECO-AIR-03	All public streets will be swept or cleaned with mechanical sweepers if visible soil material is carried onto them by construction activities or vehicles.
ECO-AIR-04	Exposed stockpiles (e. g., dirt, sand, etc.) will be covered and/or watered or stabilized with non-toxic soil binders as needed to control emissions.
ECO-AIR-05	Trucks transporting bulk materials will be completely covered unless two feet of freeboard space from the top of the container is maintained with no spillage and loss of material. In addition, the cargo compartment of all haul trucks will be cleaned and/or washed at the delivery site after removal of the bulk material.
ECO-AIR-06	Movement of bulk material handling or transfer will be stabilized prior to handling or at a point of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
ECO-AIR-07	Traffic speeds on unpaved roads and the ROW will be limited to 15 miles per hour (mph).
ECO-AIR-08	SDG&E will limit actively graded areas to a cumulative total of 12.8 acres per day. The total area of disturbance can exceed this acreage so long as the actively graded portion is below this threshold.
ECO-AIR-09	Vehicle idling time will be limited to a maximum of five minutes for vehicles and construction equipment, except where idling is required for the equipment to perform its task.
ECO-AIR-10	Road graders used during site development activities at the ECO Substation will be equipped with a California Air Resources Board-verified Level 2 diesel emission control strategy or a comparable diesel-control technology that will reduce inhalable particulate matter (PM10) emissions by 50 percent or more.
ECO-AIR-11	If suitable park-and-ride facilities are available in the Project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the Project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the Project's construction schedule.
<b>Biological Resources</b>	
ECO-BIO-01	Littering will not be allowed. Food-related garbage and trash will be removed from the Project area daily.
ECO-BIO-02	Smoking will only be allowed in cleared areas or in enclosed vehicles to reduce the potential for wildfires.
ECO-BIO-03	All earth-moving equipment will be confirmed to be clean and free of mud and vegetative material before first arriving at the construction site. If the equipment leaves the Project site, it must be confirmed to be clean and free of mud and vegetative material prior to re-entering the site.
ECO-BIO-04	Firearms will be prohibited in all Project areas.
ECO-BIO-05	Project personnel will not be allowed to bring pets to any Project area to minimize harassment or killing of wildlife and to prevent the introduction of destructive animal diseases to native wildlife populations.
ECO-BIO-06	No harm, harassment, or collection of plant and wildlife species will be allowed. Feeding of wildlife will be prohibited.
ECO-BIO-07	A biological monitor will be present during all ground-disturbing and vegetation removal activities. Immediately prior to initial ground-disturbing activities and/or vegetation removal, the biological monitor will

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APM No.	Description
	survey the site to ensure that no sensitive species will be impacted.
ECO-BIO-08	Prior to construction, all SDG&E, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including appropriate wildlife avoidance; impact minimization procedures; the importance of these resources, and the purpose and necessity of protecting them; and methods for protecting sensitive ecological resources. The training will include BMPs to reduce the potential for erosion and sedimentation during construction of the Project.
ECO-BIO-09	Survey personnel will keep survey vehicles on existing roads. During Project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat will require prior approval from the Project biological monitor. Hiking off roads or paths for survey data collection will be allowed year-round as long as all of the other applicable APMs are met.
ECO-BIO-10	Except when not feasible due to physical or safety constraints, all Project vehicle movement will be restricted to existing access roads and access roads constructed as a part of the Project and determined and marked by SDG&E in advance of construction. Approval from a biological monitor will be obtained prior to any travel off of existing access roads.
ECO-BIO-11	To the extent feasible, access roads will be built at right angles to streambeds and washes. Where it is not feasible for access roads to cross at right angles, SDG&E will limit roads constructed parallel to streambeds or washes to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads will be constructed in a manner that minimizes potential adverse impacts on waters of the U.S. or state-only waters. All access roads constructed parallel to or across these features will be approved by a biological monitor in advance.
ECO-BIO-12	Prior to construction of the 138 kV transmission line, surveys for sensitive plant species known to occur or with a moderate to high potential to occur within the Project area, as described in Chapter 4.4 Biological Resources, will be conducted for work areas and access roads during the appropriate phenological period. A report will be prepared that reflects the finding of these surveys and any associated impacts that would result from construction of the transmission line. This report will be submitted to the CPUC prior to the start of construction.
ECO-BIO-13	Prior to the start of construction, the boundaries of plant populations designated as sensitive by the USFWS or CDFG, and other resources designated sensitive by SDG&E and the resource agencies, will be delineated with clearly visible flagging or fencing. The flagging and/or fencing will be maintained in place for the duration of construction. Flagged and fenced areas will be avoided to the extent practicable during construction activities in that area.
ECO-BIO-14	If impacts to sensitive plant species are unavoidable, SDG&E will work with the appropriate jurisdictional agency (when practicable) to salvage the plant individuals utilizing methods, including removal and stockpiling for replanting on site, removal and transplanting out of surface disturbance area, or removal and salvage by an appropriate resource specialist.
ECO-BIO-15	SDG&E will conduct protocol-level surveys for QCB ( <i>Euphydryas editha quino</i> ) prior to construction. Once the surveys have been completed, a 45-day report will be submitted to the USFWS and CPUC.
ECO-BIO-19	All steep-walled trenches or excavations used during construction will be inspected twice daily (early morning and evening) to protect against wildlife entrapment. Open construction holes will be covered overnight. Covers will be secured in place nightly, prior to workers leaving the site, and will be strong enough to prevent livestock or wildlife from falling into the hole. Holes and/or trenches will be inspected prior to filling to ensure the absence of mammals and reptiles. Excavations will be sloped on one end to provide an escape route for small mammals and reptiles. If wildlife is located in the trench or excavation and cannot escape unimpeded, the biological monitor will be called immediately to remove them. The biological monitor will make the required contacts with USFWS and CDFG resource personnel and obtain verbal approval prior to removing any entrapped protected wildlife species. If the biological monitor is not qualified to remove the entrapped wildlife, a recognized wildlife rescue agency (such as Project Wildlife) will be employed to remove the wildlife and transport them safely to other suitable habitats.

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APM No.	Description
ECO-BIO-20	Permanent retention basins will be constructed with escape ramps along two sides of the pond to allow entrapped wildlife to escape. The slope of the ramps will not exceed a two to one ratio and will be constructed of non-slippery material, or as specified by the biological monitor.
ECO-BIO-21	If feasible, SDG&E will avoid construction during the nesting or breeding season. When it is not feasible to avoid construction during the nesting or breeding season, SDG&E will perform a site survey in the area where the work is to occur. This survey will be performed to determine the presence or absence of nesting birds or other species in the work area. If an active nest is identified, a biological monitor will monitor the nest and determine a suitable construction buffer to ensure that the birds are not disturbed. If the birds are federal or state-listed species, SDG&E will consult with the USFWS and CDFG as necessary to determine the construction buffer. Monitoring of the nest will continue until the birds have fledged.
ECO-BIO-22	Prior to construction, SDG&E will remove all existing raptor nests from existing structures that will be affected by Project construction. Removal of nests will occur outside of the raptor breeding season (January to July). If it is necessary to remove an existing raptor nest during the breeding season, a qualified biologist will survey the nest prior to removal to determine if it is active. If the nest is inactive, it will be dismantled and removed from the site promptly under the supervision of a biological monitor. If the nest is determined to be active, it will not be removed and the biological monitor will monitor the nest to ensure nesting activities and/or breeding activities are not disrupted. If the biological monitor determines that Project activities are disturbing or disrupting nesting activities, the monitor will make recommendations to reduce the noise and/or disturbance in the vicinity of the nest.
ECO-BIO-23	Construction night lighting in sensitive habitats will be minimized to the extent feasible. Exterior lighting within the Project area and adjacent to undisturbed habitat will be the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from preserved habitat to the maximum extent practicable.
ECO-BIO-24	Nighttime vehicle traffic volume associated with Project activities will be kept to a minimum and speeds will be limited to 10 miles per hour to prevent mortality of nocturnal wildlife species.
ECO-BIO-26	At the completion of the Project, all construction materials will be removed from the site.
ECO-BIO-27	All new access roads constructed as part of the Project that are not required as permanent access for future Project operation and maintenance will either be restored or permanently closed. Where required, roads will be permanently closed using the most effective feasible and least environmentally-damaging methods appropriate to that area (e.g., stockpiling and replacing topsoil or replacing rock), with the concurrence of the underlying landowner and the governmental agency having jurisdiction.
ECO-BIO-28	Topsoil located in areas to be restored will be conserved during excavation and reused as cover on disturbed areas to facilitate regrowth of vegetation. Topsoil located in developed or disturbed areas is excluded from this APM.
ECO-BIO-29	Wherever possible, vegetation will be left in place to avoid excessive root damage and to allow for resprouting.
ECO-BIO-30	Temporarily disturbed areas will be reseeded with an appropriate seed mix that does not contain invasive, non-native plant species in accordance with landowner approval.
<b>Cultural and Paleontological Resources</b>	
ECO-CUL-01	Prior to construction, all SDG&E, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including the potential for exposing subsurface cultural resources and paleontological resources and to recognize possible buried resources. This training will include presentation of the procedures to be followed upon discovery or suspected discovery of archaeological materials, including Native American remains, and their treatment, as well as of paleontological resources.
ECO-CUL-02	At least 120 days prior to construction, a cultural/historical resource consultant will be retained by SDG&E to complete an analysis and assessment of the potential to disturb resources that were identified during the

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APM No.	Description
	initial studies from major ground-disturbing activities. The analysis and assessment will be prepared to meet the requirements of the CEQA and NEPA. Project component sites that require testing for significance determination will be treated on a case-by-case basis using all applicable criteria.
ECO-CUL-03	A qualified archaeologist will attend preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring will be noted on the construction plans. The archaeologist's duties will include monitoring, evaluation, analysis of collected materials, and preparation of a monitoring results report conforming to agency guidelines for the Determination of the Significance of Archaeological Sites.
ECO-CUL-04	Known cultural resources that can be avoided will be demarcated as Environmentally Sensitive Areas. Construction crews will be instructed to avoid disturbance of these areas.
ECO-CUL-05	In the event that cultural resources are discovered, the archaeologist will have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program will be prepared and carried out to mitigate impacts.
ECO-CUL-06	All collected cultural remains will be cleaned, cataloged, and permanently curated with an appropriate institution. All artifacts will be analyzed to identify function and chronology as they relate to the history of the area. Faunal material will be identified as to species.
ECO-CUL-07	A monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, will be prepared and submitted to SDG&E's Cultural Resource Specialist and Environmental Project Manager following termination of the program. Any noteworthy cultural sites or features encountered will be recorded with the South Coastal Information Center at San Diego State University and with the San Diego Museum of Man.
ECO-CUL-08	Prior to construction, a paleontological resource consultant will be retained by SDG&E to complete an analysis and assessment of the potential to disturb resources from major ground-disturbing activities, such as facility pad grading, trenching, or new access road grading.
ECO-CUL-09	A qualified paleontologist will attend preconstruction meetings, as needed, to consult with the excavation contractor concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual with a Master of Science or Doctor of Philosophy in paleontology or geology who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of Southern California, and who has worked as a paleontological mitigation project supervisor in the region for at least one year. The requirements for paleontological monitoring will be noted on the construction plans.
ECO-CUL-10	A paleontological monitor will work under the direction of the qualified Project paleontologist and will be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits with high paleontological resource sensitivity (i.e., Table Mountain Formation). A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials. Because the Miocene-age Table Mountain Formation is locally covered by Pleistocene-age Older alluvium and fanglomerate deposits of unknown thickness, careful monitoring of excavations of the younger deposits will be necessary to ensure that overall monitoring of the Table Mountain Formation is as complete as possible. However, if site-specific geotechnical studies are sufficient to distinguish the geologic contact between the Pleistocene and Miocene sedimentary rock units, this information can be used to more clearly define those portions of the excavations solely sited in the Table Mountain Formation. If this level of detail is achieved prior to excavating activities, a paleontological monitor will need to be on site only on a part-time basis to observe excavation operations that involve the original cutting of previously undisturbed



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	deposits of moderate paleontological resource sensitivity (i. e., older alluvium and conglomerates deposits).
ECO-CUL-11	In the event that fossils are encountered, the Project paleontologist will have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. The paleontologist will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The paleontologist, in consultation with SDG&E's Cultural Resource Specialist will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on site. When fossils are discovered, the paleontologist (or paleontological monitor) will recover them along with pertinent stratigraphic data. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk-sedimentary-matrix samples for off-site wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage will be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections.
<b>Geology and Soils</b>	
ECO-GEO-01	SDG&E will consider the recommendations and findings of final Geotechnical Reports prepared by URS and the contractor's Geotechnical Engineer in the final design of all Project components to ensure that the potential for expansive soils and differential settling is compensated for in the final design and construction techniques. In addition, SDG&E will comply with all applicable codes and seismic standards. The final design will be reviewed and approved by a Professional Engineer registered in the State of California prior to construction.
<b>Hazardous Materials, Public Health and Safety</b>	
ECO-HAZ-01	Prior to construction, all SDG&E, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs to comply with the applicable environmental laws and regulations associated with hazardous materials.
ECO-HAZ-04	Soil testing for lead contamination will be conducted for all excavation sites within 500 feet of the informal shooting ranges. In addition, an Unanticipated Soil/Lead Contamination Handling Plan will be prepared to address the procedures to follow in the event that lead contamination is discovered during testing or excavation activities. This plan will contain provisions for a worker lead awareness program, as well as guidelines for the identification, removal, transport, and disposal of lead-impacted materials. This plan will also emphasize that all activities within, or in close proximity to, contaminated areas will follow applicable environmental and hazardous waste laws and regulations.
ECO-HAZ-05	<p>SDG&amp;E will develop a Construction Fire Prevention Plan for the Project and monitor construction activities to ensure its implementation and effectiveness. At a minimum, the Construction Fire Prevention Plan will include the following:</p> <ul style="list-style-type: none"> <li>• A description of the procedures that will be implemented to minimize the potential to start a fire (including vegetation clearing, parking requirements, etc.),</li> <li>• The requirements of Title 14 of the California Code of Regulations, Article 8 #918 "Fire Protection,"</li> <li>• Relevant components of the SDG&amp;E Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009) included in Attachment 4.7 B: SDG&amp;E Wildland Fire Prevention and Fire Safety Electric Standard Practice,</li> <li>• The fire-fighting equipment (including shovels, axes, and fire extinguishers) that must be maintained on site and in vehicles for the duration of construction,</li> <li>• The appropriate timing and use of fire-protective mats or shields during grinding and welding operations, – emergency response and reporting procedures, and</li> <li>• Relevant emergency contact information. SDG&amp;E will provide a draft copy of the Construction Fire Prevention Plan to the California Public Utilities Commission (CPUC), CAL FIRE, the Bureau of Land Management, County of San Diego, and local community fire departments at least 90 days before the</li> </ul>

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	start of any construction activities. Agency comments on the Construction Fire Prevention Plan will be provided by SDG&E to all other reviewing parties and SDG&E will resolve each comment in consultation with CAL FIRE. The final Construction Fire Prevention Plan will be approved by CAL FIRE at least 30 days prior to the initiation of construction activities. SDG&E will fully implement the Construction Fire Prevention Plan during all construction activities.
ECO-HAZ-06	SDG&E will implement the Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009) included as Attachment 4.7-B: SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009) during all construction, operation, and maintenance work associated with the Project.
<b>Hydrology and Water Quality</b>	
ECO-HYD-01	SDG&E will compensate for permanent impacts to any waters of the U.S. and state-only waters at a minimum ratio of one to one or as required by the USACE, CDFG, and RWQCB through their respective permitting processes.
ECO-HYD-02	If groundwater wells at ECO Substation are drilled within 0.5 mile of any local wells used for residential water supply, the water level in existing wells will be monitored and frequent communications will occur with the owner during construction to ensure that water availability is not adversely affected.
<b>Noise</b>	
ECO-NOI-1	Construction activities will occur during the times established by the local ordinances (generally between 7 a.m. and 7 p.m. Monday through Saturday), with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, delivery of substation transformers, filling of substation transformers, system transfers, pouring of foundations, and pulling of the conductor, which require continuous operation or must be conducted during off-peak hours per agency requirements. For any work that cannot occur during those timeframes, SDG&E will limit construction activities so that noise will not exceed an hourly average of 45 dB when measured at the border of the nearest parcel with an inhabited residence. If activities cannot be limited to meet this noise threshold, SDG&E will communicate the exception to San Diego County in advance of conducting the work that will exceed the threshold. If necessary, SDG&E will temporarily relocate residents occupying properties located less than 220 feet from construction activities on an as-needed basis for the duration of construction activities that would affect them (SDG&E 2011).
ECO-NOI-2	SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project by mail at least one week prior to the start of construction activities. The announcement will state the construction start date, anticipated completion date, and hours of operation, and well as provide a telephone contact number for receiving questions or complaints during construction
ECO-NOI-4	The use of explosives to assist with the excavation of rock will be prohibited within 600 feet of the boundary of any occupied parcels zoned for residential use and within 430 feet of the boundary of any occupied parcels zoned for agricultural use. If the use of explosives cannot be avoided in these locations, SDG&E will temporarily relocate the impacted occupants on an as-needed basis for the duration of the explosive use in their locations.