

Southern California Edison

Documentation for Compliance

with the

Opinion Granting a Certificate of

Public Convenience and Necessity (CPCN)

Notice to Proceed Request for

Colorado River Substation to Red Bluff Substation

Transmission Line

and

Replacement of Existing Devers-Palo Verde No. 1

Transmission Line Overhead Ground Wire

Devers-Palo Verde No. 2 Transmission Line Project

(DPV2)

October 7, 2011

Table of Contents

Section	Page
Acronyms.....	iii
1.0 INTRODUCTION	1
1.1 Colorado River Substation-Red Bluff Transmission Line	1
1.2 Overhead Ground Wire Replacement	1
2.0 SITE LOCATION AND CONDITIONS	3
2.1 Biological Resources	3
2.1.1 Vegetation Communities.....	3
2.1.2 Special-status Plants.....	4
2.1.3 Special-status Wildlife	5
2.1.4 Jurisdictional Waters	6
2.2 Cultural Resources	6
3.0 PROJECT COMPONENTS	6
3.1 Construction Activities and Operation Components/Activities.....	7
3.1.1 Colorado River Substation-Red Bluff Transmission Line.....	7
3.1.2 Overhead Groundwire Replacement with Optical Groundwire	7
3.2 Site Work and Activities	8
3.2.1 Colorado River Substation-Red Bluff Transmission Line.....	8
3.2.2 Existing DPV1 Overhead Ground Wire Replacement with Optical Ground Wire	8
3.2.3 Access Roads	8
3.2.4 Site Preparation.....	8
3.2.5 Underground, Belowground, and Abovegrade Activities	9
3.2.5.1 Major Underground Activities.....	9
3.2.5.2 Major Belowgrade Activities	9
3.2.5.3 Major Abovegrade Activities	10
3.2.6 Parking/Staging	10
3.2.7 Other Activities.....	11
4.0 ACTIVITY SCHEDULE	11
5.0 REFERENCES	11

Figures

- 1 Project Location Map

Appendixes

- A Project Site and Access Maps (Under separate cover)
- B Biological Resources Maps (Under separate cover)
 - B-1 Vegetation Communities Mapbook
 - B-2 Special-status Plants Mapbook
 - B-3 Special-status Wildlife Mapbook
- C Required Environmental Submittals: APM, MM, and CM Table
- D Permit Table
- E Biological Resource Impacts Summary Tables
 - Table E-1 Summary of Impacts to Vegetation Communities
 - Table E-2 Summary of Impacts to Special-status Plants
 - Table E-3 Summary of Impacts to Special-status Wildlife
 - Table E-4 Summary of Impacts to Jurisdictional Waters
- F Devers-Palo Verde No. 2 Transmission Line Project, NTPR Colorado River Substation to Red Bluff, Cultural and Paleontological Resources Assessment

Acronyms

APM	Applicant Proposed Measure
BLM	United States Bureau of Land Management
BLM:S	United States Bureau of Land Management Sensitive Species
BO	Biological Opinion
CD	Consistency Determination
CDFG	California Department of Fish and Game
CDFG:FP	California Department of Fish and Game Fully Protected
CDFG:SSC	California Department of Fish and Game Species of Special Concern
CDF:S	California Department of Forestry
CM	Conservation Measure
CRS	Colorado River Substation
CPUC	California Public Utilities Commission
DPV1	Devers-Palo Verde No. 1 Transmission Line
DPV2	Devers-Palo Verde No. 2 Transmission Line Project
EIR/EIS	Environmental Impact Report/Environmental Impact Statement
ESA	Environmentally Sensitive Area
FE	Federally Endangered
FT	Federally Threatened
GANDA	Garcia and Associates
kV	Kilovolt

LST	Lattice Steel Tower
MM	Mitigation Measure
NTP	Notice to Proceed
NTPR	Notice to Proceed Request
OHGW	Overhead Ground Wire
OPGW	Optical Ground Wire
Project	Devers-Palo Verde No. 2 Transmission Line Project
Red Bluff	Red Bluff Substation
CRS-Red Bluff	Colorado River Substation to Red Bluff Substation
ROW	Right-Of-Way
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison
SE	State Endangered
SEIR	Supplemental Environmental Impact Report
ST	State Threatened
SWPPP	Stormwater Pollution Prevention Plan
USFS:S	United States Forest Service Sensitive Species
USFWS	United States Fish and Wildlife Service
USFWS:BCC	United States Fish and Wildlife Service Birds of Conservation Concern

1.0 INTRODUCTION

This Notice to Proceed Request (NTPR) describes the Colorado River - Red Bluff Substation (CRS-Red Bluff) Transmission Line extending from the new Red Bluff Substation (Red Bluff) to the new Colorado River Substation (CRS) as part of the Devers-Palo Verde No.2 Transmission Line Project (DPV2 or Project) and the replacement of 5 miles of existing overhead ground wire (OHGW) with new optical ground wire (OPGW) on the existing Devers-Palo Verde No. 1 Transmission Line (DPV1), east of the CRS. See Figure 1: Project Location Map.

Appendix A: Project Site and Access Maps shows the entire CRS-Red Bluff Transmission Line and OHGW Replacement, crossing both private and federal lands. This NTPR is for all areas along private lands. All areas within federal lands are addressed in the United States Bureau of Land Management (BLM) Devers-Palo Verde No. 2 Transmission Line Project NTPR submitted to the BLM on August 26, 2011, and approved on September 19, 2011.

1.1 Colorado River Substation-Red Bluff Transmission Line

The CRS-Red Bluff Transmission Line starts at tower construction RB2-5E (see Appendix A, page 2-168), located south of the new Red Bluff Substation, to tower construction 2648 (see Appendix A, page 2-230), located north of the new CRS. This section of the transmission line is within the existing right-of-way (ROW). The project work consists of the construction of stub roads, foundations, steel assembly, erection of 91 lattice steel towers (LSTs), and the installation of associated hardware assemblies and interconnecting wires.

The CRS-Red Bluff Transmission Line construction features included in this NTPR are shown in Appendix A: Project Site and Access Maps, in Figures 2-168 to 2-230.

1.2 Overhead Ground Wire Replacement

The OHGW replacement consists of the replacement of existing OHGW with a single 96-fiber OPGW and installation of all associated hardware for approximately 5 miles, commencing at tower construction CR1-5E (see Appendix A, page 2-237) east to existing tower M123-T1 (see Appendix A, page 2-248).

The OHGW replacement construction features included in this NTPR are shown in Appendix A: Project Site and Access Maps, in Figures 2-237 to 2-248.

This Notice to Proceed (NTP) will be applicable for all activities associated with the CRS-Red Bluff Transmission Line, described in the DPV2 Final Environmental Impact Report and Final Environmental Impact Statement (Final EIR/EIS) and supplemented in the Project Refinements No. 1 submitted to the California Public Utilities Commission (CPUC) on June 24, 2010. In addition, CPUC approved a final Supplemental Environmental Impact Report (SEIR) on July 14, 2011, for the Expansion of the Colorado River Substation. The Project Record of Decision was approved and signed on July 13, 2011. Descriptions of the DPV2 Transmission Line and OHGW replacement activities are included in following sections of these documents:

- Final EIR/EIS
 - Section B.2.1
 - Section B.2.2
 - Section B.3
 - Section B.4
 - Section B.5
- Project Refinements 1 (August 2010)
 - Section 1.1, beginning on page 1-1
 - Section 2.3.1, beginning on page 2-12
 - Section 2.4.2, beginning on page 2-16

All applicable Final EIR/EIS Applicant Proposed Measures (APMs), Mitigation Measures (MMs), California Department of Fish and Game Code Section 2080.1 Consistency Determination (CD) measures, and Federal Endangered Species Act Section 7 Biological Opinion (BO) Conservation Measures (CMs) have been identified, and will be implemented or completed prior to commencement of the construction associated with this NTPR (see Appendix C: Required Environmental Submittals: APM, MM, and CM Measures Table). Appendix D: Permit Table summarizes the permits associated with the scope of work

described herein. Monitoring and reporting on implementation of APMs, MMs, and BO CMs will be conducted in accordance with the DPV2 Mitigation Monitoring Compliance and Reporting Plan issued by the CPUC.

2.0 SITE LOCATION AND CONDITIONS

The construction activities for the CRS-Red Bluff portion of the transmission line will occur mainly within the existing Southern California Edison (SCE) ROW from the new Red Bluff Substation, west of the Alligator Rock Area of Critical Concern (ACEC), to the new CRS near the city of Blythe. The length of the transmission line to be installed as requested under this NTPR is approximately 31 miles.

The construction activities for the existing DPV1 OHGW replacement with OPGW will extend from construction tower CR1-5E, located to the east of the CRS, east of existing tower M123-T1 near Blythe. The length of the OHGW replacement work under this NTPR is approximately 5 miles.

2.1 Biological Resources

Comprehensive literature reviews were conducted to determine which special-status plant and animal species may occur within the Project area. Focused surveys and habitat assessments were based on the results of these reviews (Dudek, 2009a; Dudek, 2009b; Dudek, 2009c; Dudek, 2010a; EPG, 2007, GANDA, 2010a; GANDA, 2010b) and are summarized below.

2.1.1 Vegetation Communities

Vegetation mapping for the CRS-Red Bluff segment of the DPV2 transmission line was conducted by Dudek in 2008 and 2009 (Dudek, 2010), and updated by Garcia and Associates (GANDA) in 2010 (GANDA, 2010a). This segment of the Project included a total of 19 land cover types: 16 natural vegetation communities (see Table E-1 in Appendix E: Biological Resource Impacts Summary Tables), including seven Sonoran/Mojavean Desert Scrub communities, one Native Grassland community, six Riparian Forest/Woodland communities, one Non-Vegetated Desert community, and one Cismontane and Desert

Interior Dune habitat (Dudek, 2010); one non-native habitat type; and two uncategorized land cover types such as open pavement and developed land. These vegetation communities are shown in Appendix B-1: Vegetation Communities Mapbook (under separate cover), Figures CRD-168 to CRD-295. Creosote bush scrub and ironwood woodland were the two dominant natural vegetation communities found within the survey area, with stabilized and partially stabilized dunes and creosote bush-white bursage scrub also present in significant amounts. Disturbed land was the only non-native land cover type.

Five of the habitats are considered sensitive including: (1) big galleta shrub-steppe; (2) blue palo verde-ironwood-smoke tree woodland; (3) blue Palo Verde woodland; (4) creosote bush scrub-big galleta; and (5) smoke tree woodland.

Temporary and permanent impacts to each vegetation community are listed in Table E-1 (see Appendix E: Biological Resource Impacts Summary Tables). SCE will implement the applicable Project APMs and MMs (CPUC, 2006), BO CMs (USFWS, 2011), and CD measures (CDFG, 2011) to mitigate impacts to special-status vegetation communities. In particular, habitat restoration activities for temporary disturbance areas are described in the Project's *Habitat Restoration and Compensation Plan* (CH2M HILL, 2011a).

2.1.2 Special-status Plants

Three special-status plant species were found during focused rare plant surveys for the CRS-Red Bluff segment of the DPV2 transmission line:

- Abram's spurge (*Chamaesyce abramsiana*; California Native Plant Society [CNPS] 2.2)
- ribbed cryptantha (*Cryptantha costata*; CNPS 4.3)
- California barrel cactus (*Ferocactus cylindraceus* var. *cylindraceus*; California Desert Native Plants Act [CDNPA]) (GANDA, 2010a; GANDA, 2010b).

Special-status plant locations are shown in Appendix B-2: Special-status Plants Mapbook (under separate cover), Figures CRD-168 to CRD-295.

Special-status plants with the potential to occur in the Project area are listed in Appendix E, Table E-2. SCE will implement the applicable Project APMs and MMs (CPUC, 2006), BO CMs (USFWS, 2011), and CD measures (CDFG, 2011) to mitigate impacts to special-status plant species. In particular, special-status plant species suitable for transplanting or salvage are described in the project's *Transplant Plan or Special-status Plant Impact Minimization and Avoidance Plan* (CH2M HILL, 2011b; CH2M HILL, 2011c).

2.1.3 Special-status Wildlife

Special-status wildlife species include those covered by the federal and California Endangered Species Acts as federally threatened (FT), federally endangered (FE), State threatened (ST), or State endangered (SE). Special-status species also include those designated as USFWS Birds of Conservation Concern (USFWS: BCC), California Department of Forestry (CDF: S), BLM Sensitive Species (BLM: S), United States Forest Service Sensitive Species (USFS: S), CDFG Fully Protected (CDFG: FP), and CDFG Species of Special Concern (CDFG: SSC). Seven special-status wildlife species were detected within the Red Bluff-CRS segment of the DPV2 transmission line including: (1) desert tortoise (*Gopherus agassizii*; FT, ST); (2) Mojave fringe-toed lizard (*Uma scoparia*; CDFG:SSC, BLM: S); (3) Colorado desert fringe-toed lizard (*Uma notata notata*; BLM:S); (4) Cooper's hawk (*Accipiter cooperii*; CDFG:SSC); (5) desert kit fox (*Vulpes macrotis*; CDFG:SSC); (6) mule deer (*Odocoileus hemionus*; USFS:MIS); and (7) red-tailed hawk (*Buteo jamaicensis*; USFWS:BCC) (Dudek, 2008; Dudek, 2009a; EPG, 2007; GANDA, 2010a). The locations of special-status wildlife species found within the project impact areas are shown in Appendix B-3: Special-status Wildlife Mapbook (under separate cover), Figures CRD-168 to CRD-295.

Temporary and permanent impacts to special-status wildlife that occur or have the potential to occur in the Project area are listed in Appendix E, Table E-3. SCE will implement the applicable Project APMs and MMs (CPUC, 2006), BO CMs (USFWS, 2011), and CD measures (CDFG, 2011) to mitigate impacts to special-status wildlife species and their habitats.

2.1.4 Jurisdictional Waters

The CRS-Red Bluff segment of the DPV2 transmission line contains United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Game (CDFG) wetland and non-wetland waters (Dudek, 2010b; Dudek, 2011). Impacted jurisdictional feature types include braided ephemeral channels, low-flow channels, ditches/culverts, and narrow ephemeral channels (Dudek, 2010b; Dudek, 2011).

Temporary and permanent impacts to jurisdictional waters that occur within the Project area are listed in Appendix E, Table E-4. SCE will implement the applicable Project APMs and MMs (CPUC, 2006), BO CMs (USFWS, 2011), and CD measures (CDFG, 2011) to mitigate impacts to jurisdictional waters.

2.2 Cultural Resources

Cultural and paleontological resources associated with each work area are described in Appendix F: Devers-Palo Verde No. 2 Transmission Line Project, NTPR Red Bluff to Colorado River Substation, Cultural and Paleontological Resources Assessment.

3.0 PROJECT COMPONENTS

This section describes the Project components, including site facilities, operations, and site work associated with construction of the CRS-Red Bluff Transmission Line and the OHGW replacement with OPGW, including installation and required removal/demolition.

Construction equipment operating hours for the work on the ROW associated with the installation of the CRS-Red Bluff Transmission Line are permitted from 7:00 a.m. to 6:00 p.m. weekdays or in accordance with an alternative schedule in compliance with the local jurisdiction. Currently, SCE is in the process of obtaining variances from the local jurisdictions to extend these permitted hours. SCE has dedicated a DPV2 toll-free information line ([866] 602-3782) and website (www.sce.com/dpv2) for this Project. The information line is the designated public notification contact for DPV2, as described in the Project Wide Construction Notification Plan.

3.1 Construction Activities and Operation Components/Activities

3.1.1 Colorado River Substation-Red Bluff Transmission Line

Following is a list of elements and activities that will possibly be present or active throughout the construction of the CRS-Red Bluff Transmission Line:

Project Elements	Construction Activities
<ul style="list-style-type: none">• New stub roads and maintenance of existing access roads• Wire setup sites (that is, pull sites, wire splice sites, tensioning sites)• Transmission tower foundations, structures, and wires• Temporary guard structures• Construction equipment and vehicles• Helicopters• Permit requirements (for example, best management practices)• Watering for dust control	<ul style="list-style-type: none">• Grading and excavation; blasting as required• Installation of foundations, tower/pole structures, and wires• Operation of construction equipment and vehicles• Operation of helicopters• Installation, maintenance, and removal of guard structures• Implementation, installation, maintenance, and removal of permit requirements (for example, Stormwater Pollution Prevention Plan [SWPPP])• Operation of water trucks

3.1.2 Overhead Groundwire Replacement with Optical Groundwire

Following is a list of elements and activities that will possibly be present or active throughout the construction of the OHGW replacement:

Project Elements	Construction Activities
<ul style="list-style-type: none">• OPGW	<ul style="list-style-type: none">• Removal of existing OHGW• Installation of new OPGW• Operation of construction equipment and vehicles• Operation of helicopters• Installation, maintenance, and removal of permit requirements• Material salvage and disposal

3.2 Site Work and Activities

3.2.1 Colorado River Substation-Red Bluff Transmission Line

Site work for the installation of the transmission line will include grading for access roads and site preparation; installation of new transmission structures/foundations, wires and hardware assemblies. Specific information on these activities is provided in the following section.

3.2.2 Existing DPV1 Overhead Ground Wire Replacement with Optical Ground Wire

Due to the outage schedule constraint and to reduce the impact of ground disturbance from equipment, the majority of the construction activities for replacing the existing OHGW with OPGW will be performed by helicopters. No access road, site preparation, and belowground activities are required for this scope of work.

3.2.3 Access Roads

Constructing the CRS-Red Bluff Transmission Line stub roads will involve clearing, grubbing, and grading. All new stub roads have been designed to be a 14-foot-wide roadway. Berms or swales that are approximately 2 to 3 feet wide will be created on each side of the stub road where necessary. Additionally, stub road widths will accommodate vehicle turning, vehicle turnouts, sidecasting, and backslope. Drainage improvements may be implemented in certain stub road locations to divert water away from stub roads to control erosion according to approved engineering designs. During construction, periodic maintenance of existing access roads may also be required.

3.2.4 Site Preparation

Construction activities associated with the construction of the CRS-Red Bluff Transmission Line will require grading and other site preparation activities. Some of these activities would be temporary (for example, construction roads, land disturbance for pull site, construction staging areas, and crane pads associated with tower assembly and erection). Other construction activities would be permanent, and the land would remain in use after construction (for example, tower footings and access roads). Typically, the staging area for

construction activities would require an area of approximately 200 by 200 feet at each tower; and in locations of relatively level terrain, only vegetation removal would occur to prepare the site for construction. In more rugged terrain or sloping site conditions, both vegetation removal and grading may be necessary to prepare the staging area for construction.

To support the equipment and vehicle traffic, the graded area will be compacted. Site preparation is necessary to accommodate, installation of new tower sites and to perform crane operation during the assembly and erection of tower structures.

Vehicles, equipment, and/or materials may be staged on the existing DPV1 access roads within the ROW.

Prior to stringing activities, temporary protective netting systems, guard structures, or temporary guard arms mounted on boom trucks will be used at crossings for roads, streets, railroads, highways, or other transmission, distribution, or communication facilities, as required. On roads where traffic is light, guard structures may not be necessary; however, the use of barriers, flagmen, and/or temporary stopping of traffic will be required.

There are approximately 51 pull sites, 12 splicing sites, and 22 guard structures for the CRS-Red Bluff Transmission Line scope. Each pull/tension site, wire splice site, and wire setup will typically occupy a work area measuring approximately 300 by 150 feet.

All site preparation will be conducted in compliance with all permit requirements and will include installation of SWPPP best management practices.

3.2.5 Underground, Belowground, and Abovegrade Activities

3.2.5.1 Major Underground Activities

None applicable to this NTPR.

3.2.5.2 Major Belowgrade Activities

It is anticipated that belowgrade activities such as excavation, drilling, and foundation installation will be performed for construction of the CRS-Red Bluff Transmission Line. Construction of the new LSTs will require construction of drilled concrete pier foundations.

Planned belowgrade activities for construction of the CRS-Red Bluff Transmission Line are summarized as follows:

Construction of Foundations for 91 Lattice Steel Towers

Each LST will require four excavated holes of approximately 3 to 7 feet in diameter and 20 to 40 feet deep.

3.2.5.3 Major Abovegrade Activities

CRS-Red Bluff Transmission Line Construction of 91 Lattice Steel Towers

The CRS-Red Bluff Transmission Line consists of the construction of 91 LSTs, as well as wire installation. Construction will be completed before April 1, 2013, to support the substation in-service schedule. All tower structures will be assembled and erected by cranes, and helicopters will be utilized for installing sock line during wire pulling operations.

Existing DPV1 Overhead Ground Wire Replacement with Optical Ground Wire

The planned construction activities will be performed during the scheduled DPV1 outage in April to May of 2012. The intent is to use helicopters to perform the majority of this work to reduce the impact of ground disturbance from setting equipment, and to complete the scope within outage schedule constraints. The existing OHGW will be utilized to pull in the new OPGW. The existing OHGW will be unclipped, the shoes will be removed, and the OHGW will be placed in stringing sheaves. The existing OHGW sag tension will be maintained during the installation process, and the hardware assemblies will be installed during the final sagging process.

Major abovegrade activities will be removal of 5 miles of existing OHGW and associated hardware, and installation of 5 miles of new OPGW and associated hardware.

3.2.6 Parking/Staging

In order to support construction activities along the transmission ROW, where terrain and/or soil conditions within the 200- by 200-foot work area will not support parking of vehicles, parking and temporary staging is proposed along the existing DPV1 access route, along established disturbed routes. All parking and staging will occur outside of any Environmentally Sensitive Area (ESA).

3.2.7 Other Activities

Water trucks will be used for dust control during the construction for compliance with South Coast Air Quality Management District requirements and Project mitigation requirements.

4.0 ACTIVITY SCHEDULE

The anticipated activity schedule for the CRS-Red Bluff construction activities are shown in the table below:

Construction Schedule – CRS-Red Bluff and OHGW Replacement Construction Activities	
Construction Activity	Start Date
CRS-Red Bluff	
Road Construction and Maintenance	December 2011
Foundation Installation	April 2012
Structure Assembly	May 2012
Structure Erection	May 2012
Conductor Installation	January 2013
GW and OPGW Installation	January 2013
OHGW Replacement	
OHGW and OPGW Replacement	April 2012

5.0 REFERENCES

California Department of Fish and Game (CDFG). 2011. *California Endangered Species Act Consistency Determination No. 2080-2011-010-06*.

California Public Utilities Commission Energy Division (CPUC). 2006. *Environmental Impact Report/Environmental Impact Statement for the Devers-Palo Verde No. 2 Transmission Line Project*. Final. October 24.

CH2M HILL. 2011a. *Administrative Draft Habitat Restoration and Compensation Plan*. August 2011.

CH2M HILL. 2011b. *Final Transplant Plan*. September 2011.

CH2M HILL. 2011c. *Administrative Draft Special-status Plant Impact Avoidance and Minimization Plan*. September 2011. Currently in draft.

Dudek. 2009a. *Focused Presence/Absence Surveys for Small Mammals for Devers to Palo Verde No. 2 Project – Valley Substation to Colorado River Segments, Riverside County, California*. June.

Dudek. 2009b. *Roosting Bat Survey, Devers-Palo Verde No. 2 500 kV Transmission Line Project, Segments 1 and 2, Riverside County, California*. December.

Dudek. 2009c. *Aeolian and Wind-Blown Sand Dune Habitat Assessment, Devers Palo Verde No.2 500 kV Transmission Line Project, Segments 1 and 2, Riverside County, California*. December.

Dudek. 2010a. *Vegetation Communities Mapping for the Devers to Palo Verde No. 2 Project*. April.

Dudek. 2010b. *Jurisdictional Determination Report for the Devers-Palo Verde No. 2 500 kV Transmission Line Project, Riverside County, California*. August.

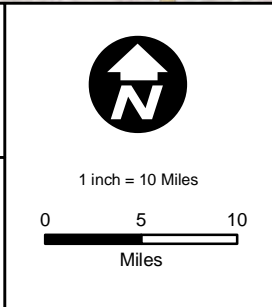
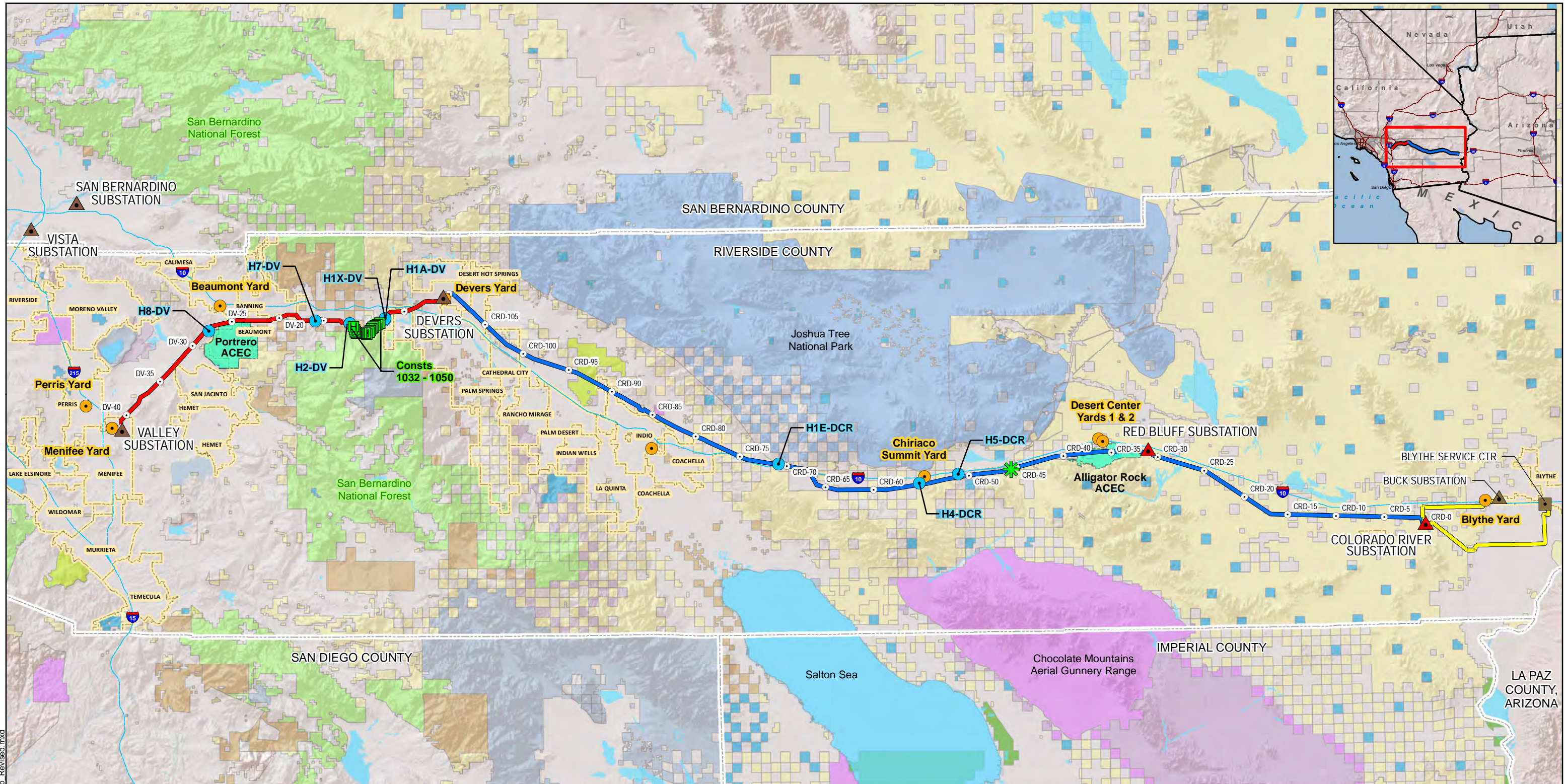
Dudek. 2011. *Section 404 Pre-Construction Notification for the Devers–Palo Verde No. 2 500 kV Transmission Line Project, Riverside County, California*. May.

Environmental Planning Group (EPG). 2007. *Palo Verde #2 Transmission Line Project Biological Assessment for Threatened and Endangered Species*. May.

Garcia and Associates (GANDA). 2010a. *DPV2 Transmission Project Segment 2: Devers-Colorado Biological Survey Report*. December.

GANDA. 2010b. *Late-Blooming Special Status Plant Surveys of DPV2 Transmission Line Project, Riverside County, California*.

United States Fish and Wildlife Service (USFWS). 2011. *Section 7 Biological and Conference Opinion on the Devers to Palo Verde No. 2 Transmission Line Project, Riverside County, California.*



Source: Southern California Edison / ESRI Basemaps/ Eagle Aerial Imagery-Flights from 2007, 2008, & 2009

Project features shown represent best available data as of August 14, 2011. Project features may change.

Devers-Palo Verde No. 2 Transmission Line Project 2011

Southern California Edison (SCE) has no reason to believe that there are any inaccuracies or defects with information incorporated in this work and make no representations of any kind, including, but not limited to, the warranties of merchantability or fitness for a particular use, nor are any such warranties to be implied, with respect to the information or data, furnished herein. No part of this map may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying and recording system, except as expressly permitted in writing by SCE.

- Legend**
- Proposed Substation
 - Existing Substation
 - Service Center
 - Proposed Helicopter Landing Platform
 - Proposed Helicopter Landing Zone
 - Proposed Construction Yard
 - Proposed & Existing Series Capacitor
 - Segment 1 - Devers Substation to Valley Substation with Mile Marker
 - Segment 2 - Colorado River Substation to Devers Substation with Mile Marker
 - Proposed Telecom Line
 - Interstate
 - City Boundary
 - County Boundary

- Ownership**
- Bureau of Land Management
 - Bureau of Reclamation
 - California Fish and Game
 - U.S. Fish & Wildlife Service
 - U.S. Forest Service
 - Nature Conservancy
 - National Park Service
 - Native American Tribe (BIA)
 - Military (Army)
 - Military (Navy)
 - State
 - Private
 - ACEC

Figure 1

DEVERS-PALO VERDE NO. 2 500kV TRANSMISSION LINE AND DEVERS TO VALLEY SEGMENTS

PROJECT LOCATION MAP

Appendix A

Project Site and Access Maps

(Under Separate Cover)

Appendix B

Biological Resources Maps

(Under Separate Cover)

Appendix C

Required Environmental Submittals:

APM, MM, and CM Table

Attachment C
Required Environmental Submittals: APM, MM and BO Measure Table
Red Bluff to CRS Transmission Line and OPGW Replacement NTPR

Note: This table contains USFWS Conservation Measures (BO) in addition to the Mitigation Measures (MM) and Applicant Proposed Measures (APM) from the MMCPRP.

Preconstruction*
 During Construction
 Post Construction

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Agriculture	MM AG-1a	Establish agreement and coordinate construction activities with agricultural Landowners. Sixty (60) days prior to the start of project construction, Southern California Edison (SCE) shall secure a signed agreement with property owners of Farmland (Prime Farmland, Farmland of Statewide Importance, Unique Farmland) and Williamson Act lands that will be used for construction and operation of the project, access and spur roads, staging areas, and other project-related activities. The purpose of this agreement will be to set forth the use of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Williamson Act lands during construction in order to: (1) schedule proposed construction activities at a location and time when damage to agricultural operations would be minimized, and (2) ensure that any areas damaged or disturbed by construction are restored to a condition mutually agreed upon by the landowner and SCE. SCE shall coordinate with the agricultural landowners in the affected areas where Farmland or Williamson Act land will be temporarily disturbed in order to determine when and where construction should occur in order to minimize damage to agricultural operations. This includes avoiding construction during peak planting, growing, and harvest seasons. If damage or destruction does occur, SCE shall perform restoration activities on the disturbed area in order to return the area to a pre-determined condition or the pre-construction condition, whichever option is agreed upon by the landowner and SCE. This could include activities such as soil preparation, regarding, and reseeded. This measure applies to agricultural landowners with land that is impacted by the Proposed Project. SCE shall provide proof of the continued use of Farmland and/or Williamson Act lands through the submittal of a signed agreement between an individual property owner and SCE. The signed agreements shall be submitted to the CPUC and BLM for review and approval prior to the start of construction.	Pre-construction, during and post construction	YES	NO	According to the FEIS, agricultural lands are present from Midpoint (CRS) to Cactus City Recreation Area and Cactus City Recreation Area to Devers. There are no agricultural lands that are impacted by construction of the CRS-Red Bluff transmission line and OHGW replacement.
Agriculture	MM AG-4a	Locate transmission towers and pulling/splicing stations to avoid agricultural operations. SCE shall site transmission towers and pulling/splicing stations in locations that minimize impacts to active agricultural operations. Specifically, SCE shall comply with the following measures when siting transmission towers and splicing/pulling stations within areas where active cultivated farmland would be removed through the presence of structures: <ul style="list-style-type: none"> • SCE shall avoid orchards, vineyards, row crops, and furrow-irrigated crops where towers would interfere with irrigation and harvest activities. • SCE shall avoid irrigation canals and ditches. • SCE shall align towers adjacent to field boundaries and parallel to rows (if located in row crops), and shall avoid diagonal orientations and angular alignments within agricultural land. • SCE shall match tower spans with existing DPV1 towers within agricultural land. • SCE shall construct towers with heights and spacing to minimize safety hazards to aerial applicators flying in the Palo Verde Valley (CA) and other agricultural areas; • SCE shall consult with the Palo Verde Irrigation District (PVID) regarding tower placement to minimize disruption to PVID facilities; • SCE shall document and provide proof of compliance with the above listed items 90 days prior to the start of Proposed Project construction. This documentation shall be submitted to the CPUC and the BLM for review and approval prior to the start of construction, and reviewed with affected landowners during coordination presented in Mitigation Measure AG 1a (Establish agreement and coordinate construction activities with agricultural landowners). 	Pre-construction	YES	NO	The CRS-Red Bluff transmission line and OHGW replacement do not impact any agricultural operations.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Air Quality	MM AQ-1a	<p>Develop and Implement a Fugitive Dust Emission Control Plan: SCE shall develop and implement a Fugitive Dust Emission Control Plan (FDECP) for construction work. Measures to be incorporated into the plan include, but are not limited to the APMs (A-1 and A-5 through A-7) and the following, which also incorporate and revise the requirements of APMs A-2 through A-4 to make them definitive and enforceable:</p> <p>CARB certified non-toxic soil binders shall be applied to all active unpaved roadways, unpaved staging areas, and unpaved parking area(s) throughout construction (as allowed by responsible agencies such as the BLM or USFWS) in amounts meeting manufacturer's recommendations to meet the CARB certification fugitive dust reduction efficiency of 84 percent.</p> <p>Water the disturbed areas of the active construction sites, where CARB certified soil binders have not been applied, at least three times per day.</p> <p>Enclose, cover, water three times daily, or apply non-toxic soil binders according to manufacturer's specifications to exposed piles with a five percent or greater silt content.</p> <p>Install wheel washers/cleaners or wash the wheels of trucks and other heavy equipment where vehicles exit the site or unpaved access roads and sweep paved streets daily with water sweepers if visible soil material from the construction sites or unpaved access roads are carried onto adjacent public streets.</p> <p>Establish a vegetative ground cover or allow natural revegetation to occur on temporarily disturbed areas following the completion of construction (in compliance with biological resources impact mitigation measures), or otherwise create stabilized surfaces on all unpaved areas at each of the construction sites within 21 days after active construction operations have ceased.</p> <p>Increase the frequency of watering, or implement other additional fugitive dust mitigation measures, to all disturbed fugitive dust emission sources when wind speeds (as instantaneous wind gusts) exceed 25 miles per hour (mph).</p> <p>Travel route planning will be completed to identify required travel routes to minimize unpaved road travel to each construction site to the extent feasible.</p>	Pre-Construction and during construction	YES	YES	This measure is addressed through the Project-wide Mitigation Plan approved on 4/18/11. This plan will be implemented during construction.
Air Quality	MM AQ-1b	Use ultra low-sulfur diesel fuel. CARB-certified ultra low-sulfur diesel (ULSD) fuel containing 15 ppm sulfur or less shall be used in all diesel-powered construction equipment.	During construction	YES	YES	This measure will be implemented during construction. Fuel purchase records will be kept onsite.
Air Quality	MM AQ-1c	Restrict engine idling to 10 minutes	During construction	YES	YES	This measure will be implemented during construction.
Air Quality	MM AQ-1d	Use lower emitting off-road diesel-fueled equipment. All off-road construction diesel engines not registered under CARB's Statewide Portable Equipment Registration Program, which have a rating of 50 hp or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless that such engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine shall be equipped with a Tier 1 engine. In the event a Tier 1 engine is not available for any off-road engine larger than 100 hp, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter), unless certified by engine manufacturers that the use of such devices is not practical for specific engine types. Equipment properly registered under and in compliance with CARB's Statewide Portable Equipment Registration Program are considered to comply with this mitigation measure.	During construction	YES	YES	This measure will be implemented during construction. Off-road equipment records shall be kept in each vehicle, will be available to the monitors and will be submitted to the CPUC prior to construction.
Air Quality	MM AQ-1e	Use on road vehicles that meet California on road standards. All on road construction vehicles working within California shall meet all applicable California on road emission standards and shall be licensed in the State of California. This does not apply to construction worker personal vehicles.	During construction	YES	YES	This measure will be implemented during construction.
Air Quality	MM AQ-1f	Use lower emitting off-road gasoline-fueled equipment. All off-road stationary and portable gasoline powered equipment shall have EPA Phase 1/Phase 2 compliant engines, where the specific engine requirement shall be based on the new engine standard in effect two years prior to the initiating project construction.	During construction	YES	YES	This measure will be implemented during construction.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Air Quality	MM AQ-1g	Reduce helicopter use during construction. Helicopter use shall be limited in California to that necessary for conductor installation, using helicopters of the smallest practical size and helicopters shall not be used for delivering supplies or personnel within California federal or State ozone nonattainment areas except as specifically excepted by the CPUC due to limitations in road access and/or to reduce other adverse environmental impacts associated with road construction/travel (such as to biological resources or cultural resources).	During construction	NO	NO	This does not apply to the Red Bluff to CRS segment as towers will not be constructed using helicopters.
Air Quality	MM AQ-1h	Schedule deliveries outside of peak hours. For marshalling and construction yards west of the eastern border of the City of Indio, all material deliveries to the yards and from the yards to the construction sites shall be scheduled to occur outside of peak "rush hour" traffic hours (7:00 to 10:00 a.m. and 4:00 to 7:00 pm) to the extent feasible, and other truck trips during peak traffic hours shall be minimized to the extent feasible.	During construction	NO	NO	The Red Bluff to Devers and OHGW is east of Indio and this measure doesn't apply.
Air Quality	MM AQ-1i	Obtain NOx emission offsets. SCE shall obtain NOx emission reduction credits or offsets in sufficient quantities to offset construction emissions of NOx that exceed the South Coast Air Basin ozone nonattainment area federal General Conformity Rule applicability threshold as determined in the General Conformity analysis for the project. The emission offset method shall comply with SCAQMD rules and regulations, and offsets shall be obtained by SCE prior to construction.	Pre-construction	NO	NO	This measure does not apply to the CRS-Red Bluff transmission line.
Air Quality	APM A-1	Heavy duty off-road diesel engines would be properly tuned and maintained to manufacturers specs to ensure minimum emissions under normal operations	During construction	YES	YES	This measure will be implemented during construction.
Air Quality	APM A-2	Water or chemical dust suppressants would be applied to unstabilized disturbed areas and/or unpaved roads in sufficient quantity and frequency to maintain a stabilized surface	During construction	YES	YES	This measure will be implemented during construction.
Air Quality	APM A-3	Water or water-based chemical additives would be used in such quantities to control dust on areas with extensive traffic including unpaved access roads; water, organic polymers, lignin compounds, or conifer resin compounds would be used depending upon availability, cost and soil type.	During construction	YES	YES	This measure will be implemented during construction.
Air Quality	APM A-4	Surfaces permanently disturbed by construction activities would be covered or treated with a dust suppressant after completion of activities at each site of disturbance	During and post construction	YES	YES	This measure will be implemented during and post construction as applicable.
Air Quality	APM A-5	Vehicle speeds on unpaved roadways would be restricted to 15 mph.	During construction	YES	YES	This measure will be implemented during construction.
Air Quality	APM A-6	Vehicles hauling dirt would be covered by tarps or other means.	During construction	YES	YES	This measure will be implemented during construction.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Air Quality	APM A-7	Site construction workers would be staged offsite at or near paved intersections and workers would be shuttled in crew vehicles to construction sites as part of the construction contract SCE would require bidders to submit a construction transportation plan describing how workers would travel to the jobsite.	Pre-construction and during construction	YES	YES	Construction workers will be staged within the boundaries of the yards. If the contractor will need to park outside of the yard boundaries, a Transportation Plan will be provided prior to construction.
Greenhouse Gas Emissions	MM (SEIR) GHG 1	Avoid sulfur hexafluoride emissions. SCE shall ensure that project equipment, specifically the circuit breakers at the Colorado River Substation, maintains a leakage rate of 0.5 percent per year or less for sulfur hexafluoride (SF6). To accomplish this, SCE shall include this limit as a performance specification for the gas insulated switchgear that would be installed as part of the project. Maintenance, repair, and replacement of all gas insulated switchgear shall be consistent with manufacturer's recommendations for achieving this performance specification and in compliance with CARB regulations for reducing sulfur hexafluoride emissions from gas insulated switchgear (17 CCR 95350).	Pre-construction	NO	NO	This measure applies to the CRS expansion and does not apply to either transmission line segment.
Biology	MM B-1a	Prepare and implement a Habitat Restoration/Compensation Plan. SCE shall restore all areas disturbed by project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations that are removed during construction of the Proposed Project. Where onsite restoration is planned for mitigation of temporary impacts to sensitive vegetation communities, SCE shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC/BLM. Hydroseeding, drill seeding, or an otherwise proved restoration technique shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC/CDFG/ADGF/FWS and BLM. SCE shall flag the limits of disturbance at each construction site. The Plan shall incorporate the measures identified in the June 2006 Memorandum of Understanding regarding vegetation management along rights-of-way for electrical transmission and distribution facilities on Federal lands. In project areas that occur in the WRCMSHCP plan area, SCE shall use the applicable Best Management Practices identified in the WRCMSHCP. The creation or restoration of habitat shall be monitored for five years after mitigation site construction, or until established success criteria are met, to assess progress and identify potential problems with the restoration site. Remedial activities (e.g., additional planting, weeding, or erosion control) shall be taken during the monitoring period if necessary to ensure the success of the restoration effort. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise noted by the CPUC/BLM.	Pre-construction, during and post construction	Yes	Yes	Applies to vegetated areas disturbed by construction activities. CH2M HILL, 2011a; GANDA, 2010b
Biology	MM B-2a	Conduct invasive and noxious weed inventory. SCE shall survey the project corridor, including access roads, for populations of invasive and noxious weeds prior to the start of construction. All populations of invasive and noxious weeds within 500 feet of each tower location shall be flagged prior to construction. The Applicant shall submit a Noxious Weed Control Plan to BLM, CPUC, ADGF, CDFG, and/or USFWS at least 60 days prior to the start of construction. The weed control plan shall specify the location of existing weed populations; measures to control introduction and spread of noxious weeds in the project corridor; worker training, specifications, and inspection procedures for construction materials and equipment used in the project corridor; post-construction monitoring for noxious weeds; and eradication and control methods. Known populations of invasive and noxious weeds in the project corridor shall be evaluated by BLM, CPUC, CDFG, and USFWS to identify candidates for eradication. Selected weed populations shall then be eradicated prior to construction. All seeds and straw material shall be certified weed free. All gravel and fill material used during project construction and maintenance shall be certified weed free by the local County Agriculture Commissioner's Office.	Pre-construction and during construction	Yes	Yes	Baseline inventories have been completed and standard weed control measures will be implemented. A project-wide Noxious Weed Control Plan has been prepared which addresses this measure. This plan was submitted to the CPUC on 08/15/2011. CH2M HILL, 2011b; Dudek, 2008a; GANDA, 2010b

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	MM B-2b	<p>Implement control measures for invasive and noxious weeds. SCE shall adhere to the BLM management guidelines for reducing the potential for the introduction of noxious weeds and invasive, non-native plant species by implementation of the following standards:</p> <p>Wash all equipment and vehicles. Vehicles and all equipment must be washed BEFORE AND AFTER entering all project sites unless otherwise directed in writing by the BLM. This includes wheels, undercarriages, bumpers and all parts of the vehicle. In addition, all tools such as chain saws, hand clippers, pruners, etc., must also be washed BEFORE AND AFTER entering all project areas. For example, vehicles traveling into contaminated areas are the main dispersal mechanism for yellow star-thistle. All washing must take place where rinse water is collected and disposed of in either a sanitary sewer or a landfill.</p> <p>Keep written logs. When vehicles and equipment are washed, a daily log must be kept stating the location, date and time, types of equipment, methods used and staff present. The log shall contain the signature of the responsible crewmember. Written logs will be available for CPUC/BLM inspection and shall be turned in to BLM on a weekly basis.</p> <p>Post-construction weed abatement on the Coachella Valley Preserve. Post-construction follow-up weed abatement will be conducted on the work areas within the Coachella Valley Preserve and Kofa National Wildlife Refuge. Weed abatement will be conducted during the spring following construction and</p>	During and post construction	Yes	Yes	This measure will be implemented during construction in compliance with the Noxious Weed Control Plan. CH2M HILL, 2011b
Biology	MM B-5a	<p>Conduct pre-construction surveys and monitoring for breeding birds. SCE shall conduct protocol level surveys for nesting birds if construction activities are scheduled to occur during the breeding season for raptors and other migratory birds. Surveys shall be conducted in areas within 500 feet of tower sites, laydown/staging areas, substation sites, and access road/spur road locations. SCE shall be responsible for designating a CPUC/BLM-approved qualified biologist who can conduct pre-construction surveys and monitoring for breeding birds. If State or federally listed birds with active nests are found, a biological monitor shall establish a 500-foot buffer around the nest and no activities will be allowed within the buffer until the young have fledged from the nest or the nest fails. The biological monitor shall conduct regular monitoring of the nest to determine success/failure and to ensure that project activities are not conducted within the 500-foot buffer until the nesting cycle is complete or the nest fails. The biological monitor shall be responsible for documenting the results of the surveys and the ongoing monitoring. A 300-ft buffer shall be implemented in the event that raptors or other species protected under the MBTA are located. This buffer will be evaluated after consultation with the CPUC/BLM/CDFG and USFWS.</p>	Pre-construction and during construction	Yes	Yes	Due to potentially suitable nesting habitat for some avian species, preconstruction nesting bird surveys will be required during the appropriate time of year. If breeding birds with active nests are found, a biological monitor will establish a suitable buffer around the nest for ground-based construction activities.
Biology	MM B-6a	<p>Develop a transplanting plan. In coordination with the BLM, SCE shall prepare a transplanting plan in compliance with both Arizona and California laws and regulations regarding native and sensitive plants, prior to project construction activities. The plan will provide details on the plants being transplanted, including which species and how many individuals of each species; where the plants will be transplanted; how the plants will be maintained during the transplanting efforts; and if the plants will be used to re-vegetated disturbed areas of the construction site. As a condition of the plan, a pre-construction survey will be conducted to mark (using bright-colored flagging) all plants that will be transplanted. Some cacti will need to be transplanted facing the same direction as they currently face (in other words, the north side of the plant must stay facing the north); these cacti will be identified in the plan and appropriately marked to identify which side faces north. For listed plant species SCE shall identify if the plants can be avoided. If avoidance is not possible, SCE shall purchase off site mitigation in coordination with the USFWS and CDFG.</p>	Pre-construction and during construction	Yes	Yes	Transplantable species (Ferocactus and Coryphantha) will be addressed as outlined in the Transplant Plan. Special-Status annuals will be addressed as outlined in the Special-Status Plant Impact Avoidance and Minimization Plan. CH2M HILL, 2011c
Biology	MM B-7b	<p>Conduct pre-construction tortoise surveys.</p>	Pre-construction and during construction	Yes	Yes	Pre-construction desert tortoise clearance surveys will be conducted in accordance with the requirements of the Project Biological Opinion (CM 34). USFWS, 2011

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	MM B-7c	Purchase mitigation lands for impacts to tortoise habitat. Following construction, SCE shall acquire lands to compensate for the loss of tortoise habitat within the Category II and III management areas in Arizona and California. The amount of land to be acquired will depend on the acreage of disturbance within these management areas. Acquired lands will be in a nearby area of good tortoise density and within tortoise habitat. BLM and SCE shall conduct a field inspection of the disturbed areas after completion of construction of the transmission line to determine the exact acreage required for compensation. The lands purchased will be transferred to the United States and be administered by the BLM. Land may be transferred to the BLM and/or incorporated into an existing management area.	Post-Construction	Yes	Yes	Mitigation land will be purchased in accordance with the ratios provided in the Project Biological Opinion. USFWS, 2011; Dudek, 2008a; GANDA, 2011a
Biology	MM B-7d	<p>Purchase mitigation lands for impacts to fringe-toed lizard habitat. SCE shall purchase or enhance lands for all permanent loss of habitat that are within the Coachella Valley fringe-toed lizard Critical Habitat unless otherwise directed by the USFWS Biological Opinion for the Proposed Project. Mitigation Lands shall be determined in consultation with the USFWS, CDFG, and CPUC.</p> <p>Clearing work areas of CVFTL in the Coachella Valley Preserve. A temporary fence or other effective barrier that does not allow lizards to enter the work areas shall be constructed around the perimeter of each of the work areas in the refuge. Any lizards found within the barrier shall be relocated outside of the work areas.</p> <p>Duration of Surveys for fringe-toed lizard and flat-tailed horned lizard. Surveys for CVFTL and FTHL shall be conducted during the appropriate seasons (May 1 through the end of summer) and conditions for species identification. The duration of the surveys shall coincide with the duration of construction activities in potential habitat for these species (particularly on the Coachella Valley Preserve) that occurs during the summer season. For any areas of suitable habitat, this measure shall apply. Construction shall not occur on the Preserve or in other potential habitat areas outside of the detection period for FTHL.</p>	During and Post construction	No	No	The Project elements do not contain suitable habitat for Coachella Valley fringe-toed lizard or flat tail horned lizard; therefore, purchase of mitigated lands for these species is not required. CH2M HILL, 2011a
Biology	MM B-7e	<p>Conduct focused surveys for California gnatcatchers. SCE shall conduct protocol level surveys for California Gnatcatchers in all areas supporting suitable coastal sage or Riversidean sage scrub habitats that may be affected by the project (San Bernardino to Vista Substation and San Bernardino Junction to San Bernardino Substation). This will include a minimum 300 foot buffer around construction areas. Presence/absence of this species shall be determined prior to construction activities. If direct impacts to coastal California gnatcatcher occupied habitat cannot be avoided, then impacts to this species shall be addressed through either the Section 7 or Section 10(a)(1)(B) Process under the Federal Endangered Species Act of 1973, as amended and consistent with the WRCMSHCP. SCE shall complete compliance with the Federal Endangered Species Act prior to Project construction. After definition of suitable habitat, the following requirements apply:</p> <ul style="list-style-type: none"> • Construction activities shall be restricted within coastal sage scrub habitat during the gnatcatcher breeding season (March 15 July 31); • SCE shall implement the applicable Best Management practices in the WRSMSHCP; • SCE shall restore, create, or enhance on site coastal sage scrub habitat; and/or • SCE shall purchase land or mitigation bank credits at an appropriate ratio to offset impacts to gnatcatchers and their habitat. 	Pre-construction, during and post construction	No	No	The Project elements do not support suitable habitat for coastal California gnatcatchers; therefore, focused surveys are not required. Dudek. 2008c; Dudek. 2011b; 2010a

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	MM B-7f	Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat. Prior to the implementation of construction in areas that support suitable habitat for Stephens' kangaroo rat and San Bernardino kangaroo rat (Calimesa and San Timoteo Canyon). SCE shall conduct focused surveys to determine if sign (burrows, scat, and etc.) of these species is present in all areas within 100 feet that would be permanently or temporarily affected by construction activities. All surveys shall be conducted by a qualified biologist who holds the appropriate Federal FWS permits to conduct trapping surveys for these species. If sign is found to be present, then SCE shall conduct focused trapping surveys according to accepted protocols to determine presence/absence of these species. If these species are found, then SCE shall implement measure to avoid direct impacts, including the placement of exclusion fencing around work areas where impacts will occur, trapping of animals from inside impact areas, and placement of those animals outside of exclusion fencing until construction is completed. A qualified biological monitor shall be present during construction to ensure that animals are not harmed. Following completion of construction, SCE shall remove all exclusion fencing and recontour the soils to the pre-construction condition.	Pre-construction, during and post construction	No	No	The Project elements do not contain suitable habitat for Stephens' kangaroo rat or San Bernardino kangaroo rat; therefore, focused surveys are not required. Dudek. 2009b, CH2M HILL, 2011a
Biology	MM B-8a	Conduct surveys for listed plant species. SCE shall conduct focused surveys for listed and sensitive plants prior to construction, Surveys shall be conducted during the appropriate floristic period necessary for the identification of sensitive plant species in all suitable habitat located within the Project ROW and within 100' of all surface disturbing activities. Populations of sensitive plants shall be flagged and mapped prior to construction. If listed plants are located during the focused surveys, then modification of the placement of towers, access roads, laydown areas, and other ground disturbing activities would be implemented in order to avoid listed plants. If listed plants cannot be avoided, SCE shall be responsible for the translocation of plants and/or collection of seeds from existing populations that would be impacted and the planting/seeding of these plants in adjacent suitable portions of the ROW that would not be affected by Proposed Project construction or maintenance activities. Impacts to listed plant species would addressed through the context of a biological opinion.	Pre-construction and during construction	Yes	Yes	Three special-status species were observed during focused surveys. If avoidance is not feasible, the measures outlined in the Special Status Plant Impact Avoidance and Minimization Plan will be implemented. Dudek. 2008a; CH2M HILL, 2011d; GANDA, 2011b; GANDA. 2010c
Biology	MM B-9a	Conduct pre-construction surveys. SCE shall conduct pre-construction surveys for sensitive wildlife in any area subject to project disturbance. Surveys shall be conducted during a time of year when these species are known to be active. The location of sensitive species identified during the pre-construction surveys shall be identified on project maps.	Pre-construction	Yes	Yes	Pre-construction surveys will be conducted to ensure impacts to sensitive plant and wildlife species are minimized to the extent possible.
Biology	MM B-9b	Conduct biological monitoring. SCE shall conduct biological monitoring of the project area including the laydown, staging, access roads, and any area subject to project disturbance. The biological monitor shall look for sensitive wildlife species (including forest watchlist animals and Forest Service Region 5 sensitive species) that may be located within or immediately adjacent to the construction areas. If sensitive species are found, the biological monitor shall move them out of harm's way (listed species require take authorization) to avoid direct impacts to these species. In the event that the wildlife species may cause harm to the biologist, the biologist shall notify the construction crews and monitor the species until it moves out of harms way. The results of all monitoring shall be recorded in daily monitoring notes that shall be included as part of the required monitoring reports for the project. The SCE shall notify the CPUC/BLM if any sensitive species are located during construction of the project. The SCE shall notify the Forest Service of all sensitive species found on Forest Service land.	During construction	Yes	Yes	Biological monitors will be present during construction activities.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	MM B-9c	Implement a Worker Environmental Awareness Program. A Worker Environmental Awareness Program (WEAP) shall be implemented for construction crews by a qualified biologist(s) provided by SCE and approved by the CPUC/BLM prior to the commencement of construction activities. Training materials and briefings shall include but not be limited to, discussion of the Federal and State Endangered Species Acts, the consequences of noncompliance with these acts, identification and values of sensitive plant and wildlife species and significant natural plant community habitats, fire protection measures, sensitivities of working on forest service lands and identification of Forest Service sensitive species and MIS wildlife species, hazardous substance spill prevention and containment measures, and review of mitigation requirements. Training materials and a course outline shall be provided to the CPUC and BLM for review and approval at least 30 days prior to the start of construction. Training materials and updates of training materials shall also be provided to the Forest Service for review and comment. SCE shall provide to the CPUC and BLM a list of construction personnel who have completed training, and this list shall be updated by SCE as required when new personnel start work. No construction worker may work in the field for more than 5 days without receiving the WEAP.	Pre-construction, and during construction	Yes	Yes	WEAP training is required for all field personnel working on the Project.
Biology	MM B-9d	<p>Conduct pre-construction reptile surveys. Prior to construction, SCE shall conduct surveys in areas of suitable habitat for Sonoran desert tortoise, common chuckwalla, banded Gila monster, and desert rosy boa within 48 hours prior to the start of construction activities. If common chuckwallas, banded Gila monsters and/or desert rosy boas are found on the construction site, they will be relocated to nearby suitable habitat outside the construction area. Following the clearance surveys, exclusion fencing will be erected or a biological monitor will be onsite during construction activities.</p> <ul style="list-style-type: none"> • If potentially suitable burrows or rock piles are found, they will be checked for occupancy. Occupied burrows will be flagged and avoided (employing a 50 foot buffer) during construction. If the burrow cannot be avoided, it will be excavated and the occupant relocated to an unoccupied burrow outside the construction area and of approximately the same size as the one from which it was removed. If an existing burrow is unavailable, the biologist will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original. Trenches, holes, or other excavations will be examined for banded Gila monster prior to filling. If individuals are found, the biological monitor will relocate them to nearby suitable habitat. • During construction, if a common chuckwalla, banded Gila monster, and/or desert rosy boa occur on the project site, construction activities adjacent to the individual's location will be halted and the animal will be allowed to move away from the construction site. If the individual is not moving, a qualified biologist will relocate it to nearby suitable habitat outside the construction area. It shall be placed in the shade of a shrub. The Forest Service will be notified of any sensitive wildlife identified on NFS lands. Also during construction, if a Sonoran desert tortoise occurs on the project site, construction activities adjacent to the individuals location will be halted and the Guidelines for Handling Sonoran Desert Tortoises Encountered During Construction Projects will be followed by qualified personnel. 	Pre-construction and during construction	Yes	Yes	The impact identified with this measure was focused on the Arizona portion of the Project. However, SCE will implement similar monitoring efforts where sensitive reptiles are found during the construction phase of the Project.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	MM B-9e	<p>Conduct pre-construction surveys and owl relocation. Prior to construction, SCE shall conduct pre-construction surveys for the western burrowing owl. Surveys shall be conducted prior to ground disturbance activities in appropriate areas within the potential impact areas of the project to determine the presence of burrowing owls and to ensure clearance of these areas. If active owl burrows are discovered during pre-construction surveys, owls would be evicted from the burrows using either active or passive techniques as recommended by the BLM and Burrowing Owl Consortium. Owl relocation, as well as discouragement of owls from returning to the site, will occur in the following manner:</p> <p>During the non-breeding season (September 1 through January 31), burrowing owls occupying the Proposed Project site will be evicted by passive relocation. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in.</p> <p>If construction is to occur during the breeding season (February 1 through August 31) and prior to the relocation of the owls, 75 meter (246 foot) protective buffers would be maintained around burrows occupied by owls until a BLM approved biologist approves other action. Other actions could include passive relocation if it is determined that owls have not begun laying eggs or postponement of construction in the area until the young are fledged and no longer dependent upon the nest burrow.</p> <p>Once fledglings are capable of independent survival and adult non-breeding owls have successfully been relocated offsite, potential owl habitat (squirrel burrows) would be collapsed in order to keep the owls from returning. Ground squirrels would be removed from the site by trapping and relocation or by other approved means. Following squirrel removal, existing ground squirrel burrows would be destroyed.</p>	Pre-construction and during construction	Yes	Yes	Portions of the Project contain suitable habitat for burrowing owls, and burrowing owls were observed during focused surveys. General pre-construction surveys will be conducted. If burrowing owls are found onsite and cannot be avoided, passive relocation will be conducted. GANDA, 2011b
Biology	MM B-9f	Perform construction outside of breeding and lambing period. Construction activities conducted within suitable habitat near Burnt Mountain, Harquahala Mountain, and Kofa NWR shall not occur during the period of the year when bighorn sheep are lambing (from January 1 to April 30). A pre-construction survey for bighorn sheep shall be conducted on Forest Service lands prior to construction and maintenance of the transmission lines. If bighorn sheep are found, then SCE shall consult with the Forest Service, USFWS, and Bighorn Institute to identify appropriate avoidance measures.	Pre-construction and during construction	No	No	Surveys were conducted with negative results. The USFWS has determined that the Project will have no effect on bighorn sheep. The Project elements do not support bighorn sheep habitat; therefore this measure does not apply.
Biology	MM B-9g	Conduct pre-construction surveys and relocation for American badger. Prior to construction, SCE shall conduct pre-construction surveys for American Badger. Surveys will be conducted prior to ground disturbance activities in areas that contain habitat for this species. Badger dens located outside the project area shall be flagged for avoidance. Unoccupied dens located in the right of way shall be covered to prevent the animal from re-occupying the den prior to construction. If occupied dens are identified in the area of the ROW that must be disturbed, the CDFG/BLM/Forest Service shall be consulted regarding options for action. Hand-excavation is an option if occupied dens cannot be avoided, but alternatives shall be considered due to potential danger to biologists. Dens shall only be hand-excavated before or after the breeding season (February 1–May 30). Any relocation of badgers shall take place after consultation with the BLM, Forest Service, and CDFG.	Pre-construction and during construction	Yes	Yes	The Project elements contain potential habitat for American badger. However, no badger dens were detected that would require avoidance. This mitigation measure will be implemented as specified if badger dens are found during construction clearance surveys. Dudek. 2008a, GANDA, 2010b
Biology	MM B-9h	Conduct pre-construction surveys for roosting bats. SCE shall conduct surveys focused surveys for suitable roosting habitat or nursery sites for sensitive bats at the tower location, access/spur roads, and laydown/staging areas that occur in rocky areas or in areas where caves or old mines are present. If suitable roosting/nursery sites are found, then focused surveys shall be conducted to determine if the sites support sensitive bat species. If sensitive bat species occur at these sensitive roosting/nursery sites, then tower-specific adjustments and adjustments of the locations of access/spur roads and laydown/staging areas shall be made to avoid these sites. If towers, access/spur roads, and/or laydown/staging areas cannot avoid these sites, then construction of the towers, roads, and establishment of laydown/staging areas shall be delayed until the breeding cycles for the sensitive bats are completed. SCE shall consult with a bat specialist in order to determine when the breeding cycle for the sensitive bats are completed. SCE shall document the results of the surveys and any avoidance of roosting/nursery sites for sensitive bats.	Pre-construction	No	No	Applies to locations near rocky areas, caves, or old mines. No bat roosting areas were located on site; therefore, this measure does not apply. Dudek, 2009c

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	MM B-9i	Schedule construction when the Coachella Valley round-tailed squirrel is dormant. SCE shall conduct pre-construction surveys for Coachella Round Tailed Squirrels prior to construction to identify locations of nesting colonies. Placement of footings, roads, and laydown areas shall avoid nesting colonies of this species. If this species is identified within the ROW, construction activities shall be scheduled only during periods when this species is dormant (between August 1 and February 28).	Pre- construction	No	No	There is no suitable habitat for Coachella Valley round-tail ground squirrel on site. GANDA, 2010b
Biology	MM B-13a	Demonstrate compliance with the Western Riverside County MSHCP. SCE shall provide documentation that it has complied with the provisions of the MSHCP.	Pre-construction and during construction	No	No	This measure applies to locations within the San Gorgonio River/San Bernardino-San Jacinto Mountains Linkage of the Western Riverside County MSHCP.
Biology	MM B-13b	Implement the Best Management Practices required by the Western Riverside County MSHCP. SCE shall provide documentation that is has implemented the Best Management Practices set forth in Appendix C of the Western Riverside MSCHP.	During construction	No	No	This measure applies to locations within the San Gorgonio River/San Bernardino-San Jacinto Mountains Linkage of the Western Riverside County MSHCP. Erosion control measures and Best Management Practices (BMPs) will be implemented as directed in the Stormwater Pollution Prevention Plans (SWPPP).
Biology	MM B-15a	Utilize collision-reducing techniques in installation of transmission lines. SCE shall install the transmission line utilizing APLIC standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994 (APLIC, 1996)." <ul style="list-style-type: none"> Placement of towers and lines will not be located significantly above existing transmission line towers and lines, topographic features, or tree lines to the maximum extent practicable. Overhead lines that occur significantly above the above-mentioned features and that are located in highly utilized avian flight paths will be marked utilizing aerial marker spheres, swinging plates, spiral vibration dampers, bird flight diverters, avifauna spirals, or other diversion device as to be visible to birds and reduce avian collisions with lines. 	Pre-construction and during construction	Yes	Yes	Collision-reducing techniques will be implemented during the installation of the transmission line.
Biology	MM B-16a	Prepare and implement a raven control plan. SCE shall prepare a common raven control plan that identifies the purpose of conducting raven control, provides training in how to identify raven nests and how to determine whether a nest belongs to a raven or a raptor species, describes the seasonal limitations on disturbing nesting raptors species (excluding ravens), describes the procedure for obtaining a permit from the USFWS's Division of Migratory Birds, and describes procedures for documenting the activities on an annual basis. SCE shall gain approval of the plan from the USFWS's Division of Migratory Birds. SCE shall provide this raven control plan to all transmission line companies that conduct operations within the ROW.	Pre-, during, and post-construction	Yes	Yes	The Project elements contain desert tortoise habitat. However this is a post-construction measure. CH2M HILL, 2011a; GANDA, 2010b
Biology	MM B-18a	No Activities in Riparian Conservation Areas. The final project design will include protective measures that prohibit construction activities on NFS lands in Riparian Conservation Areas in compliance with the Forest Plan. Examples of activities that will NOT be allowed include ground disturbance, adding potable water to these areas while implementing erosion control measures, and removing water from the waterways.	Pre-construction and during construction	No	No	This measure applies to areas within the San Bernardino National Forest; therefore, this measure does not apply.
Biology	APM B-1	Vegetation: Avoid direct disturbance of highly sensitive features (as identified in E. Linwood Smith's (1985) Impact Assessment/Mitigation Planning Chart; see Appendix E) with spanning and careful local adjustment in tower footing placement. (BLM B-5.1 Vegetation) ⁴ [Note: The reference to Appendix E is unknown. There is no Appendix E as part of the BLM right-of-way grant (provided from PEA Appendix A). However, the Smith report itself is found in FSEIS (1988) as Appendix B, Study of Desert Bighorn Sheep.]	Pre-construction	Yes	Yes	Highly sensitive features will be avoided to the extent feasible.
Biology	APM B-2	Vegetation: Avoid the introduction of noxious weeds and/or other invasive species through standard noxious weed measurements. This will benefit most of the species covered by the [Coachella Valley Multiple Species Habitat Conservation] plan. (SCE)	During construction	Yes	Yes	Standard weed control measures will be implemented as stated in the project's Noxious Weed Control Plan. CH2M HILL, 2011b

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	APM B-4	Vegetation/Wildlife: Avoid sand compaction at all sites in the Coachella Valley. This will benefit such species as the giant sand treader cricket, Coachella Valley Jerusalem cricket, and Coachella Valley milkvetch. (SCE)	During construction	Yes	Yes	Vehicles will remain on established roads to the maximum extent feasible.
Biology	APM B-6	Vegetation: Avoid vehicular travel in washes to protect triple-ridged milkvetch. (SCE)	During construction	No	No	No triple-ribbed milkvetch have been documented at the Project elements; however, if this species is identified during pre-construction surveys, avoidance and minimization measures will be implemented as stated in
Biology	APM B-7	Vegetation/Wildlife: No activities whatever should occur in wetland areas. (SCE)	During construction	Yes	Yes	This measure applies to tower placement. Wetland areas will be avoided to the greatest extent feasible; however, some jurisdictional areas were unavoidable. Dudek, 2010; Dudek, 2011a
Biology	APM B-8	Vegetation: Provide additional detailed surveys and tower-specific adjustments as needed prior to construction for major sensitive feature sites (e.g., concentrations of sensitive plants, individual palm trees, woody dune or wash communities) which cannot be easily avoided by spanning. (See Appendix B of the Devers–Palo Verde No. 2 EIR [1987] and Appendix E of the SEIS [1988].) The methodologies and results of these surveys must be submitted to and approved in writing by the BLM Authorized Officer. (BLM B-5.2 Vegetation)	Pre-construction	Yes	Yes	Additional surveys have been completed and towers will be located to minimize impacts to sensitive resources. CH2M HILL, 2011g
Biology	APM B-9	Vegetation: Initiate transplant efforts for <i>Ferocactus</i> and <i>Coryphantha</i> as soon as probable losses can be determined. Any plans for transplanting must be developed in consultation with a BLM botanist and approved in writing by the BLM Authorized Officer. (BLM B-5.4 Vegetation)	Pre-construction and during construction	Yes	Yes	Ferocactus and Coryphantha species will be transplanted according to the Transplant Plan. CH2M HILL, 2011c
Biology	APM B-11	Vegetation: The Authorized Officer may require vegetation in certain areas to be cleared by hand tools. Scalping of top soil and removal of low growing vegetation will not be allowed unless authorized by the Authorized Officer. (BLM B-5.6 Vegetation)	Pre-construction and during construction	Yes	Yes	If avoidance is not feasible, topsoil salvage may be implemented in areas that support special-status plant species that are not suitable for transplanting. CH2M HILL, 2011c; GANDA, 2011a
Biology	APM B-12	Vegetation: Where possible, towers or access roads will be located so as to avoid sensitive plants or plant communities. Where this is not feasible, affected individual plants will be transplanted. Towers will also be placed so that lines will span critical wildlife habitat. (BLM B-5.7 Vegetation)	Pre-construction and during construction	Yes	Yes	Towers have been located to avoid sensitive plants and plant communities to the extent feasible. If avoidance is not feasible, topsoil salvage may be implemented in areas that support special-status plant species that are not suitable for transplanting.
Biology	APM B-13	Vegetation: Tower sites will be selected to allow maximum spacing of sensitive features. (BLM B-5.8 Vegetation)	Pre-construction	Yes	Yes	Towers have been located to avoid sensitive plants and plant communities to the extent feasible. CH2M HILL, 2011g; GANDA, 2011b
Biology	APM B-14	Vegetation: Minimize the area needed for equipment operation and material storage and assembly. (BLM B-5.3 Vegetation)	Pre-construction	Yes	Yes	The staging areas were designed and located to minimize impacts to biological resources. CH2M HILL. 2011g

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	APM B-18	Wildlife: Disturbed areas – To the maximum extent possible, transmission pylons and poles, equipment storage areas, and wire-pulling sites should be sited in a manner that avoids desert tortoise burrows. (SCE)	Pre-construction and during construction	Yes	Yes	Pre-construction clearance surveys for desert tortoise will be conducted. Desert tortoise burrows will be flagged for avoidance to the extent feasible.
Biology	APM B-19	Wildlife: Restoration – Whenever possible, spur roads and access roads and other disturbed sites created during construction should be recontoured and restored. (SCE)	Pre-construction, during and post construction	Yes	Yes	Temporary disturbance areas will be recontoured or restored in accordance with the project's Habitat Restoration / Compensation Plan. CH2M HILL, 2011a
Biology	APM B-20	Wildlife: Ravens – All transmission lines should be designed in a manner that would reduce the likelihood of nesting by common ravens. Each transmission line company should remove any common raven nests that are found on its structures. Transmission line companies must obtain a permit from USFWS's Division of Migratory Birds to take common ravens or their nests. (SCE)	Pre-construction, during and post construction	Yes	Yes	Raven Management will be conducted in accordance with the Projects Raven Control Plan. CH2M HILL, 2011d
Biology	APM B-21	Wildlife: No clearing of or other disturbance to riparian habitats. If unavoidable, riparian habitats must be replaced or restored. This action will benefit several riparian bird species including summer tanager, yellow warbler, yellow breasted chat, least Bell's vireo, and southwestern willow flycatcher. (SCE)	Pre-construction and during construction	Yes	Yes	Project elements will avoid impacts to riparian habitats to the extent feasible. Dudek. 2010
Biology	APM B-22	Wildlife: Avoid impact to mesquite-dominated habitats to protect crissal thrasher. (SCE)	Pre-construction and during construction	No	No	The Project elements do not support mesquite-dominated habitat. CH2M HILL, 2011a; GANDA, 2010b
Biology	APM B-23	Wildlife: Minimize impact to or removal of creosote bush to benefit LeConte's thrasher. (SCE)	Pre-construction and during construction	Yes	Yes	The Project elements contain suitable habitat for LeConte's thrasher. Impacts to creosote bush scrub will be minimized to the extent feasible. CH2M HILL, 2011a; GANDA, 2010b
Biology	APM B-24	Wildlife: Avoid any alterations to the vegetation structure of Washington fan palm oases to benefit southern yellow bat. (SCE)	Pre-construction and during construction	No	No	The Project elements do not support Washington fan palm oases; therefore, this measure does not apply. CH2M HILL, 2011a
Biology	APM B-25	Wildlife: Avoid any alterations of mesquite hummock habitat to benefit Coachella Valley round-tailed ground squirrel. (SCE)	Pre-construction and during construction	No	No	The Project elements do not support mesquite hummock habitat; therefore, this measure does not apply. CH2M HILL, 2011a
Biology	APM B-26	Wildlife: Wash communities along the entire route and sand dune communities in the Coachella Valley (see Map 10-AZ in the Draft SEIS and Figure 4.5-1 in the CPUC Draft EIR, 1987) will be spanned to the extent possible. (BLM B-5.2 Wildlife)	Pre-construction and during construction	Yes	Yes	Wash communities and sand dune habitat will be avoided to the extent feasible.
Biology	APM B-27	Wildlife: Prior to construction activities, the Holder shall have a qualified tortoise biologist present a class or briefing to construction workers. Subjects addressed shall include tortoise sensitivity to human disturbance, daily and seasonal activity patterns, and proper handling for removal from roadways. (BLM B-5.4 Wildlife)	Pre-construction and during construction	Yes	Yes	WEAP training is required for all construction personnel working on the Project.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	APM B-28	Wildlife: The Holder shall hire a qualified tortoise biologist to conduct daily inspections of roads and work areas within tortoise habitat during the tortoise season of activity (February 15 to June 15, July 15 to October 15). Tortoises found to be in jeopardy will be removed to a nearby site. Tortoises may be held for short periods, if judged necessary, to allow construction crews to pass through an area. The Holder will provide proper facilities for such temporary holding. (BLM B-5.6 Wildlife)	During construction	Yes	Yes	The Project elements contain desert tortoise habitat. A Qualified Biologist or FCR will ensure compliance with all desert tortoise conservation measures per the requirements in the USFWS Biological Opinion. CH2M HILL, 2011a; GANDA, 2010b; USFWS, 2011
Biology	APM B-29	Wildlife: The Holder shall restrict the speed on all roads within tortoise habitat to a maximum of 25 miles per hour. The Holder is responsible for ensuring compliance with this limit by its employees. (BLM B-5.6 Wildlife)	During construction	Yes	Yes	The Project elements contain desert tortoise habitat. A Qualified Biologist or FCR will ensure compliance with all desert tortoise conservation measures per the requirements in the USFWS Biological Opinion. Speeds will be posted per the requirements in the USFWS Biological Opinion.
Biology	APM B-30	Wildlife: Within tortoise habitat in California, spur roads shall not be bladed except where necessary to allow access for construction vehicles. Required vehicles shall enter on one pathway which is flagged and developed only by the passage of vehicles crushing vegetation. The spur shall be flagged by a qualified tortoise biologist prior to use. The spur shall avoid tortoise burrows and large perennial plants, yet be as short as possible within these requirements.	Pre-construction and during construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b
Biology	APM B-31	Wildlife: Any desert tortoise observed on access roads or work areas will be moved immediately away from the roadway into safe areas. (BLM B-5.8 Wildlife)	During construction	Yes	Yes	The Project elements contain desert tortoise habitat. A Qualified Biologist or FCR will ensure compliance with all desert tortoise conservation measures per the requirements in the USFWS Biological Opinion. CH2M HILL, 2011a; GANDA, 2010b; USFWS, 2011
Biology	APM B-32	Wildlife: In areas considered to comprise suitable tortoise habitat, or other areas where tortoise are observed, all access roads and tower construction sites will be surveyed by a qualified biologist to delineate burrows or individuals for protection. Burrows near construction sites will be clearly delineated on the ground. Road, footing, and work area alignments should be modified to the extent possible to avoid adversely affecting any tortoise burrows encountered during these surveys. Where tortoise burrows will be unavoidably destroyed, they should be excavated carefully using hand tools, under the supervision of a field biologist with demonstrated prior experience with this species. See Map 11-AZ in Appendix F in the Draft EIS (1988) and Figure 4.5-2 in the Devers-Palo Verde No. 2 EIR (1987). Also see Appendix E for link and milepost descriptions and mitigation measures. (BLM B-5.9 Wildlife)	Pre-construction and during construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b
Biology	APM B-33	Wildlife: If possible, no new roads, tower sitings, or spur roads will be built in blow sand areas. However, if new spur roads are required through wind-blown sand habitat, the road will be returned to natural conditions and effectively closed (gated or bermed) following construction. Pre-construction surveys will identify wind-blown sand dune habitats. (BLM B-5.10 Wildlife)	Pre-construction and during construction	Yes	Yes	Temporary disturbance areas within blowsand habitat will be recontoured or restored in accordance with the Project Habitat Restoration and Compensation Plan. CH2M HILL, 2011a

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	APM B-34	<p>Wildlife: Where the project crosses through the Coachella Valley Preserve, the Holder will cooperate with the Preserve in closing (gating) existing access roads. (a) A qualified biologist will also be present with work crews to survey and clear work areas daily for Coachella Valley fringe-toed lizard (CVFTL), flat-tailed horned lizard (FTHL), and other sensitive species in the Preserve and sand dune communities from Link 14 (Milepost 7.6) to Link 16 (Milepost 5.0) to identify if any additional areas of occupied CVFTL and FTHL habitat are present along the route or at construction staging areas. (b) This survey will be conducted during appropriate seasons (March 15 to May 15) and conditions for species identification. For any areas of suitable habitat, this measure will apply.</p> <p>In the Coachella Valley, compacted soils should be scarified and seeded with a mix of native plant seeds, including bugseed (<i>Dicoria canescens</i>), to promote revegetation of plant species valuable to the lizard.</p> <p>Construction activity and surface disturbance will be prohibited during the period from January 1 to March 31 for the protection of the bighorn sheep lambing areas. These areas along the proposed route include Link 2 (Milepost 29.0 to 34.0) and Link 6 (Milepost 0.0 to 6.0). (BLM B-5.11 Wildlife)</p>	During construction and post construction.	No	No	The Project elements are not located within the Coachella Valley Preserve; therefore, this measure does not apply.
Biology	APM B-35	Wildlife: Avoid upland areas where desert tortoises might occur and/or have a biologist present during construction activities that involve earth moving in order to move any tortoises (in burrows or cover-sites, or on the surface) that would likely be impacted. (BLM B-5.17 Wildlife)	During construction	Yes	Yes	The Project elements contain desert tortoise habitat. A Qualified Biologist or FCR will ensure compliance with all desert tortoise conservation measures in the USFWS Biological Opinion. USFWS, 2011
Biology	APM B-36	Wildlife: Avoid construction activities that would tend to create wind barriers that might result in sand stabilization in order to minimize impacts to populations of the Coachella Valley fringe-toed lizard. (BLM B-5.18 Wildlife)	During construction	No	No	The Project elements are not located in Coachella Valley fringe-toed lizard habitat; therefore this measure does not apply. CH2M HILL, 2011a
Biology	APM B-37	Wildlife: Mitigation for the coastal California gnatcatcher should include protocol-driven pre-construction surveys. If gnatcatchers are found to be present, suitable habitat should be avoided, including relocating towers and access. If habitat cannot be avoided, SCE should either restore damaged habitat, as at the Weapons Support Facility, Fallbrook Detachment, San Diego County (Soil Ecology and Research Group, 2004), or participate in land set-aside programs such as the Natural Community Conservation Planning program (NCCP). Another potential mitigation action would be that of assisting in the provision of funding for monitoring programs that may be undertaken through the Western Riverside County Multiple Species Habitat Conservation Plan.	Pre-, during, and post construction.	No	No	The Project elements do not support suitable coastal California gnatcatcher habitat; therefore, this measure does not apply. Dudek, 2008c; 2010a
Biology	APM B-38	Wildlife: For least Bell's vireo, suitable habitat would be completely avoided by relocating tower sites and/or associated access roads. If avoidance is not possible and the habitat is damaged or lost, SCE should participate in habitat banking programs or provide funding through the Western Riverside County Multiple Species Habitat Conservation Plan for plan-related monitoring of this species.	Pre-construction and during construction	No	No	The Project elements do not support suitable least Bell's vireo habitat; therefore, this measure does not apply. Dudek, 2008b
Biology	APM B-39	Wildlife: Stephens' kangaroo rat habitat would be avoided, where possible.	Pre-construction and during construction	No	No	The Project elements do not support suitable habitat for the Stephens' kangaroo rat; therefore this measure does not apply. CH2M HILL, 2011a; Dudek, 2009

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	MM (SEIR) B-8b	<p>Minimize off-site impacts to Harwood's eriastrum, Harwood's milk-vetch, and flat-seeded spurge habitat. SCE and their contractors or affiliates shall avoid adverse impacts to Harwood's eriastrum, Harwood's milk-vetch, and flat-seeded spurge habitat (i.e., sandfields and dunes) adjacent to the project site that may result from project construction or operation, such as equipment staging, spoils transport or storage, weed control, soil tackifiers or stabilization agents, collection and disposal of accumulating aeolian sand, or erosion. SCE shall prepare and implement a focused Special-Status Plant Impact Avoidance and Minimization Plan to describe specific measures to be taken during substation construction and operation to minimize impacts to Harwood's eriastrum, Harwood's milk-vetch, and flat-seeded spurge habitat. The Plan shall include consideration of the following components:</p> <ol style="list-style-type: none"> 1. Delineation of the limits of construction disturbance area on-site prior to beginning of construction (the construction disturbance area includes equipment staging areas, spoils transport or storage areas, access routes and all other areas that may be temporarily disturbed by construction); 2. Preconstruction surveys to identify and designate suitable habitat (whether occupied or not) for any of these species throughout the construction disturbance area and a 250-foot buffer are surrounding it; 3. Specific measures to be implemented and monitored throughout substation construction and operation, including but not limited to a. prevent overspray of herbicides, pesticides, soil tackifiers, or other potential toxins into suitable habitat during weed control or other site maintenance activities. b. on-site management of runoff to prevent nuisance runoff from draining into suitable habitat and prevent erosion of the habitat during heavy rains. c. management and control of weeds on and adjacent to the site to prevent weed invasions into suitable adjacent special-status plant habitat; d. prevent damage to suitable special-status plant habitat that may result from collecting or disposing accumulating sand; 4. Schedule and format for reporting to CPUC on implementation and progress of the components listed above. <p>The Plan shall be reviewed and approved by the CPUC at least 60 days prior to construction.</p>	Prior to start of construction	No	No	This measure applies to the CRS expansion and does not apply to any transmission line segment.
Biology	MM (SEIR) B-9j	Provide compensatory mitigation and restoration/enhancement of protected land for impacts to sand dune habitat. To mitigate for habitat loss and direct impacts to Mojave fringe-toed lizards, SCE shall acquire compensatory habitat.	Prior to start of construction	No	No	This measure applies to the CRS expansion and does not apply to any transmission line segment.
Biology	CM-1	At least 60 days prior to the initiation of ground-disturbing activities, SCE will designate a field contact representative (FCR) who will be responsible for overseeing compliance with project specifications and all conservation measures outlined in this biological/conference opinion.	During Construction	Yes	Yes	Field Contact Representatives have been designated by SCE.
Biology	CM-2	The FCR will be on site for all ground-disturbing activities within kangaroo rat, milk-vetch, fringe-toed and horned lizard, and tortoise habitat, and will have the authority to halt all work activities that are not in compliance with the project's conservation measures and incidental take statement requirements. The FCR will be responsible for ensuring that any activities found to be out of compliance with the conservation measures are corrected immediately and the corrective action documented. The following incidents will require immediate cessation of non-compliant construction activities causing the incident, including (1) imminent threat of injury or death to kangaroo rats, milk-vetch, fringe-toed lizard and horned lizards, and tortoises; (2) unauthorized handling of a kangaroo rat, milkvetch, fringe-toed and horned lizard, or tortoise, regardless of intent; (3) operation of construction equipment or vehicles outside the project footprint cleared of kangaroo rats, milk-vetch, fringe-toed or horned lizards, and tortoises, except on designated roads, and (4) construction activity without a Authorized or Qualified Biologist where one is required. If the Authorized or Qualified Biologist and FCR do not agree on an issue, the BLM's compliance officer will be contacted for resolution. All parties may refer the resolution to the BLM's authorized officer.	During Construction	Yes	Yes	The Project elements contain habitat for desert tortoise. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-3	The FCR will coordinate with the Authorized or Qualified Biologist to provide a monthly written report to the BLM, Service, and CDFG, detailing completed and ongoing construction-related compliance activities, any non-compliance issues pertaining to the kangaroo rat, milk-vetch, fringe-toed or horned lizard, and tortoise, and any incidental observations of healthy, injured, or dead individuals of these species. The Authorized or Qualified Biologist will coordinate his/her activities with the FCR as frequently as needed to effectively implement the project's conservation measures.	During Construction	Yes	Yes	The Project elements contain habitat for desert tortoise. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-4	All final contract documents involving project construction activities that relate to the project's conservation measures will ensure (a) the FCR is vested with oversight authority for all activities of contractors and subcontractors in the action area, including the halting of any project-related activities; (b) all contractors and subcontractors are obligated to adhere to any orders issued by the FCR addressing compliance issues with the project's conservation measures; (c) adherence of all project-related activities and designs to the requirements of the conservation measures; and (d) the obligation of all workers in the action area to complete the WEAP (see CM 14) and immediately report the observation of any healthy, injured, or dead kangaroo rats, milk-vetch, fringe-toed or horned lizards, or tortoises or crushed milk-vetch to the FCR or Authorized or Qualified Biologist, whoever is first available.	During Construction	Yes	Yes	This measure will be implemented.
Biology	CM-5	Should any kangaroo rats, milk-vetch, fringe-toed or horned lizards, or tortoises be injured or killed, or milk-vetch crushed during ground-disturbing activities, all activities in the immediate area will be halted, and the FCR and/or Authorized or Qualified Biologist will be immediately contacted. The FCR, Authorized or Qualified Biologist will be responsible for reporting the incident (via fax or email) to the BLM, Service, and CDFG within 24 hours of the incident.	During Construction	Yes	Yes	The Project elements contains habitat for desert tortoise. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-6	Prior to the initiation of ground-disturbing activities, all work area boundaries associated with temporary and permanent disturbances will be conspicuously staked, flagged, or marked to minimize surface disturbance activities. All workers will strictly limit activities and vehicles to the designated work areas.	During Construction	Yes	Yes	This measure will be implemented.
Biology	CM-7	Removal of perennial, native vegetation in work areas will be avoided to the maximum extent practicable, particularly while accessing pulling and splicing stations and during pulling and splicing activities. Access to work areas in undisturbed habitat will be achieved by crushing, instead of removal, to the maximum extent practicable.	During Construction	Yes	Yes	This measure will be implemented.
Biology	CM-8	To minimize harassment or killing of wildlife and to prevent the introduction of destructive animal diseases to native wildlife populations, project personnel will not be allowed to bring pets into the action area.	During Construction	Yes	Yes	This measure will be implemented.
Biology	CM-9	During construction-related activities, motor vehicles will be limited to maintained roads, designated routes, and areas identified as permanently or temporarily impacted by construction of the project.	During Construction	Yes	Yes	This measure will be implemented.
Biology	CM-10	Motor vehicle speed along project routes and existing access roads within modeled, critical, and/or occupied habitat for the kangaroo rat, fringe-toed or horned lizard, or tortoise will not exceed 25 miles per hour (mph). Speed limits will be clearly marked and all workers will be made aware of these limits.	During Construction	Yes	Yes	The Project elements contain habitat for desert tortoise. This measure will be implemented. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-11	All project components (e.g., towers, spur roads, pulling/splicing stations, construction yards/staging areas) will be located as to avoid sensitive plants and plant communities, or sensitive animals (e.g., burrows) to the maximum extent practicable.	During Construction	Yes	Yes	This measure will be implemented.
Biology	CM-12	Construction yards and helicopter assembly sites will be located outside of kangaroo rat, fringe-toed lizard, and horned lizard habitat (modeled, critical, or occupied habitat).	During Construction	No	No	This measure applies to construction yards and helicopter assembly areas; therefore, this measure does not apply.
Biology	CM-13	All auger holes, trenches, pits, or other steep-sided excavations that pose a hazard to kangaroo rats, fringe-toed or horned lizards, or tortoises will be securely fenced or covered when unattended to prevent accidental death or injury. At the start and end of each workday, and just before backfilling, all excavations will be inspected for trapped animals. If found, trapped animals will be removed by the Authorized or Qualified Biologist.	During Construction	Yes	Yes	The Project elements contain habitat for desert tortoise. This measure will be implemented. CH2M HILL, 2011a; GANDA, 2010b

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-14	SCE will prepare a Worker Education and Awareness Program (WEAP) that will be presented by the FCR or Authorized or Qualified Biologist to all existing and new employees/contractors prior to their involvement in any onsite project activities. The WEAP, at a minimum, will consist of the following elements for kangaroo rat, milk-vetch, fringe-toed lizard, horned lizard, and tortoise: (a) distribution, general behavior, and ecology, (b) species sensitivity to human activities, (c) legal protection, (d) penalties for violation of State and Federal laws, (e) worker responsibilities for trash disposal and safe/humane treatment of species found in the action area and associated reporting requirements, (f) handout materials summarizing all the contractual obligations and protective requirements specified in the biological/conference opinion, and (g) requirements and penalties regarding adherence to speed limits in the project footprint. The outline of the WEAP will be submitted to the BLM, Service, and CDFG for review and approval at least 60 days prior to the initiation of surface-disturbing activities. The names of all employees, contractors, etc., who have participated in the WEAP will be kept on file at the project field construction office.	During Construction	Yes	Yes	WEAP training is required for all field personnel.
Biology	CM-15	To prevent the spread of invasive nonnative plant species (as designated by BLM or the California Department of Food and Agriculture) into previously uninfested areas, a Qualified Botanist or Range Ecologist ⁵ will survey all proposed work areas prior to construction within the transmission line corridor. Any areas that contain BLM- and/or State-listed invasive plant species will be clearly demarcated in the field. All construction activities, vehicle operation, material and equipment storage, and any other surface disturbing activities will be prohibited in the demarcated area. If avoidance is not possible in the demarcated zone, the invasive plant species will be removed via acceptable mechanical, cultural, or herbicidal methods approved by the BLM, Service, and CDFG. Prior to entering the action area for the first time, all ground-disturbing equipment will be thoroughly cleaned at one of the wash stations at a construction yard to ensure against the introduction of invasive nonnative plants. The wash stations will be located outside of suitable habitat for kangaroo rat, milk-vetch, fringe-toed lizard, horned lizard, and tortoise.	During Construction	Yes	Yes	Invasive, non-native plant species will be addressed in accordance with the Project Noxious Weed Control Plan. CH2M HILL, 2011b
Biology	CM-16	Immediately after completion of construction-related activities, the FCR or designated representative will record the perimeter of the post-construction project footprint, including all tower pads, spur roads, pulling and splicing stations and access routes, substation components, and other project-related infrastructure in a GIS-compatible format to verify the extent of project disturbance. The GIS coverage layer will be provided to the BLM, Service, and CDFG within 90 days of completing construction; the coverage will be compared to impact acreages estimated in this biological/conference opinion to determine final ground-disturbance associated with project construction. If final impact acreages are less than those estimated in Table 1 of this biological/conference opinion, SCE will receive a mitigation credit that could be applied to mitigation for future activities along the DPV1/DVP2 ROW.	During Construction	Yes	Yes	This measure will be implemented.
Biology	CM-17	During construction-related activities in occupied habitat, a Qualified Biologist will install exclusion fencing around work areas where impacts will occur, trap animals from inside impact areas, and relocate trapped animals out of harm's way outside of exclusion fencing until construction is completed. The Qualified Biologist will be present during construction to ensure that animals are not harmed. Following completion of construction, SCE will remove all exclusion fencing and recontour the soils to the preconstruction condition. The name and qualifications of the Qualified Biologist will be submitted to the Service and CDFG for approval at least 30 days prior to project construction in occupied kangaroo rat habitat.	During Construction	No	No	The Project elements do not contain modeled or potential Stephens' kangaroo rat habitat; therefore, this measure does not apply. CH2M HILL, 2011a; Dudek, 2009
Biology	CM-18	During construction in suitable habitat, work will only occur during daylight hours and no night lighting will be used in kangaroo rat habitat.	During Construction	No	No	The Project elements do not contain modeled or potential Stephens' kangaroo rat habitat; therefore, this measure does not apply.
Biology	CM-19	During construction in suitable habitat, a load spreading device (e.g., plywood) will be used to reduce impacts to burrow systems. Load spreading devices must be removed each night.	During Construction	No	No	The Project elements do not contain modeled or potential Stephens' kangaroo rat habitat; therefore, this measure does not apply.
Biology	CM-20	To reduce the potential for kangaroo rats to utilize access roads, and therefore be subject to impact, along the DPV2 alignment, earthen berm heights will not exceed 13 centimeter (cm) [5 inches (in)] in height in suitable habitat.	During Construction	No	No	The Project elements do not contain modeled or potential Stephens' kangaroo rat habitat; therefore, this measure does not apply.
Biology	CM-21	No fuel modification will be conducted in suitable habitat.	During Construction	No	No	The Project elements do not contain modeled or potential Stephens' kangaroo rat habitat; therefore, this measure does not apply.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-22	To partially offset the impacts of permanent and temporary/long-term losses of kangaroo rat habitat associated with the proposed project, SCE will acquire at least 0.08 ha (0.20 ac) and restore/enhance at least 1.13 ha (2.80 ac) of kangaroo rat habitat. The compensation ratio will be 1:1 for permanent and temporary/long-term impacts to kangaroo rat habitat [0.08 ha (0.20 ac) of permanent impacts ×1 = 0.08 ha (0.20 ac); and 1.13 ha (2.80 ac) of temporary/long term impacts ×1 = 1.13 ha (2.80 ac)]. Permanent impacts will be offset through the purchase of 0.08 ha (0.20 ac) of occupied kangaroo rat habitat within the Southwestern Riverside County Multiple Species Reserve. Payment of \$2,800 (at \$14,000/ac) will be made to the Metropolitan Water District of Southern California for acquisition of kangaroo rat habitat prior to any project work within kangaroo rat habitat. Temporary impacts will be offset by the restoration or enhancement of 1.13 ha (2.80 ac) of kangaroo rat habitat within the Lake Perris State Recreation Area portion of the San Jacinto Lake Perris Stephens' Kangaroo Rat Reserve as designated within the Habitat Conservation Plan for the Stephens' Kangaroo Rat in Riverside County. The habitat enhancement will consist of nonnative grass suppression by mowing, hand clearing and/or fusillade application in kangaroo rat habitat. The enhancement will be funded by SCE (at \$1,050/ac) and be carried out under the direction of the California Department of Parks and Recreation. SCE will provide payment of \$2,940 to the California Department of Parks and Recreation prior to the initiation of construction in kangaroo rat habitat.	During Construction	No	No	The Project elements do not contain modeled or potential Stephens' kangaroo rat habitat; therefore, this measure does not apply. CH2M HILL, 2011a; Dudek, 2009
Biology	CM-23	To the extent possible, all construction activities in modeled habitat will be conducted outside of the seed germination and growing season, generally January to May.	During Construction	No	No	The Project elements do not contain modeled or potential Coachella Valley milk-vetch habitat; therefore, this measure does not apply.
Biology	CM-24	A Qualified Biologist will conduct preconstruction focused surveys in areas of the project in modeled habitat in the winter (generally January and February) preceding initiation of ground disturbing activities and be present throughout construction activities in modeled habitat. The name and qualifications of the Qualified Biologist will be submitted to the BLM and Service for approval at least 30 days prior to project construction in modeled habitat.	During Construction	No	No	The Project elements do not contain modeled or potential Coachella Valley milk-vetch habitat; therefore, this measure does not apply. CH2M HILL, 2011a; CH2M HILL, 2011h
Biology	CM-25	Milk-vetch locations identified during the preconstruction surveys will be delineated on aerial photography, incorporated into the construction management plans, and avoided to the maximum extent possible. Where avoidance is not possible, SCE will develop a Plant Salvage Plan to be submitted to the BLM and Service for approval 30 days prior to the initiation of ground disturbing activities where milk-vetch will be impacted. The Salvage plan will include, but is not limited to, seed collection and storage at an appropriate facility (e.g., Rancho Santa Ana Botanical Garden), reseeding in appropriate existing or restored habitat, or other similar activities. Salvage will be conducted by a Qualified Biologist.	During Construction	No	No	The Project elements do not contain modeled or potential Coachella Valley milk-vetch habitat; therefore, this measure does not apply. CH2M HILL, 2011a; CH2M HILL, 2011h

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-26	To partially offset the impacts of permanent and temporary/long-term losses of milk-vetch modeled habitat associated with the proposed project, SCE will acquire at least 50.99 ha (126 ac) of milk-vetch habitat. The compensation ratio will be 2:1 for permanent and temporary/long-term impacts to milk-vetch modeled habitat [25.50 ha (63 ac) of impact x2 = a total of 50.99 ha (126 ac)]. The lands will be purchased either by SCE or SCE can deposit funds with the National Fish and Wildlife Foundation (NFWF) account governed by the Renewable Energy Action Team/NFWF Memorandum of Agreement (REAT/NFWF MOA 2010); if funds are deposited with NFWF, a compensation fee will be assessed based on current fair market appraised value for the specific geographic area in which the acquisition occurs. The acquired lands will occur in milk-vetch habitat with equivalent function and value. The replacement habitat is intended to benefit the population of milk-vetch adversely affected by the project, and will be located within or adjacent to priority conservation areas in the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) with comparable or better habitat value. The BLM and Service will coordinate to reach mutual agreement on the selection and ownership/management of acquired lands. If funds are provided to NFWF, the compensation (1) funds will be provided prior to project construction, (2) lands will be acquired prior to completion of project construction, and (3) lands will be conserved in perpetuity by a legal mechanism agreed to by the three agencies. If the conservation lands are acquired directly by SCE, steps #2 and #3 will apply. Regardless of the acquisition method (by SCE or NFWF), SCE will establish a management fund for the agency that owns and manages the acquired lands. The management fund will consist of an interest-bearing account (as described in the REAT/NFWF MOA), with the amount of capital commensurate to generate sufficient interest to fund all monitoring, management, and protection of the acquired lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and other actions designed to protect or improve the habitat values of the acquired lands. A Property Analysis Record, as described at: http://cnlm.org/cms/index.php?option=com_content&task=view&id=21&Itemid=155 or comparable method, will be conducted by SCE and reviewed by the BLM and Service to determine the management needs and costs described above, which then will be used to calculate the amount of capital needed for the management fund. This management fund will be held and managed by NFWF or another entity approved by the BLM and Service.	During Construction	No	No	The Project elements do not contain modeled or potential Coachella Valley milk-vetch habitat; therefore, this measure does not apply. CH2M HILL, 2011a; CH2M HILL, 2011h
Biology	CM-27	To the extent possible, all construction activities within modeled/blow sand habitat will be conducted during the active season, between April and October (inclusive of both months). Construction activities in modeled/blow sand habitat may be extended beyond the active season if exclusionary fencing is installed during the active season.	During Construction	No	No	The Project elements do not contain modeled Coachella Valley fringe-toed lizard or blow sand habitat ; therefore, this measure does not apply. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-28	A Qualified Biologist will conduct preconstruction clearance surveys immediately prior to the initiation of ground disturbing activities during the active season, between April and October inclusive of both months), in modeled/blow sand habitat and be present during all construction activities in these areas. The name and qualifications of the Qualified Biologist will be submitted to the BLM, Service, and CDFG for approval at least 30 days prior to project construction in modeled/blow sand habitat.	During Construction	No	No	The Project elements are outside the known range of Coachella Valley fringe-toed and flat-tailed horned lizard; therefore this measure will not be implemented. CH2M HILL, 2011a
Biology	CM-29	If fringe-toed or horned lizards are found, the Qualified Biologist will capture and relocate any individuals to the nearest suitable habitat in modeled/blow sand habitat outside of the DPV1/DPV2 ROW.	During Construction	No	No	The Project elements are outside the known range of Coachella Valley fringe-toed and flat-tailed horned lizard; therefore this measure will not be implemented. CH2M HILL, 2011a

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-30	<p>To partially offset the impacts of permanent and temporary/long-term losses of fringe-toed The security will be in the amount of \$413,600 based on the following estimated costs of implementing the mitigation, monitoring and reporting requirements: land acquisition costs for impacts to habitat, calculated at \$3,000.00/ac for 35.61 ha (88 ac): \$264,000; costs of enhancing mitigation lands, calculated at \$250.00/ac: \$22,000; long term maintenance and management, calculated at \$1,450.00/ac: \$127,600.</p>	During Construction	No	No	<p>The Project elements are outside the known range of Coachella Valley fringe-toed and flat-tailed horned lizard; therefore this measure will not be implemented.</p>

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-31	To partially offset the impacts of permanent and temporary/long-term losses of horned lizard habitat, SCE will acquire at least 12.95 ha (32 ac) of horned lizard habitat. The compensation ratio will be 2:1 for permanent and temporary/long-term impacts to horned lizard modeled habitat [6.47 ha (16 ac) of impact x2 = a total of 12.95 ha (32 ac)]. The lands will be purchased either by SCE or SCE can deposit funds with the NFWF under the account governed by the REAT/NFWF MOA (REAT/NFWF MOA 2010); if funds are deposited with NFWF, a compensation fee will be assessed based on current fair market appraised value for the specific geographic area in which the acquisition occurs. The acquired lands will occur in horned lizard habitat with equivalent function and value. The replacement habitat is intended to benefit the population of horned lizard adversely affected by the project, and will be located within or adjacent to priority conservation areas in the CVMSHCP with comparable or better habitat value. The BLM and Service will coordinate to reach mutual agreement on the selection and ownership/management of acquired lands. If funds are provided to NFWF, the compensation (1) funds will be provided prior to project construction, (2) lands will be acquired prior to completion of project construction, and (3) lands will be conserved in perpetuity by a legal mechanism agreed to by the three agencies. If the conservation lands are acquired directly by SCE, steps #2 and #3 will apply. Regardless of the acquisition method (by SCE or NFWF), SCE will establish a management fund for the agency that owns and manages the acquired lands. The management fund will consist of an interest-bearing account (as described in the REAT/NFWF MOA), with the amount of capital commensurate to generate sufficient interest to fund all monitoring, management, and protection of the acquired lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and other actions designed to protect or improve the habitat values of the acquired lands. A Property Analysis Record, as described at: http://cnlm.org/cms/index.php?option=com_content&task=view&id=21&Itemid=155 or comparable method, will be conducted by SCE and reviewed by the BLM and Service to determine the management needs and costs described above, which then will be used to calculate the amount of capital needed for the management fund. This management fund will be held and managed by NFWF or another entity approved by the BLM and Service.	During Construction	No	No	The Project elements are outside the known range of Coachella Valley fringe-toed and flat-tailed horned lizard; therefore this measure will not be implemented. CH2M HILL, 2011a
Biology	CM-32	To the extent possible, all construction activities in modeled, critical, and occupied habitat will be conducted when tortoises are less active, generally November to March.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented to the extent feasible during construction.
Biology	CM-33	An Authorized Biologist will be present during all construction activities in tortoise habitat modeled, critical habitat, and/or occupied habitat) during the tortoise's more active season (April thru May and September thru October). The name and qualifications of the Authorized Biologist will be submitted on the Service's Desert Tortoise Authorized Biologist Request Form (September 2009) or most current version to the BLM, Service, and CDFG for approval at least 30 days prior to initiation of ground-disturbing activities in tortoise habitat.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-34	The Authorized Biologist will conduct clearance surveys and tortoise handling following procedures outlined in the Service's Desert Tortoise Field Manual (December 2009) or more current Service guidance.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-35	The Authorized Biologist will conduct preconstruction clearance surveys immediately prior to initiation of ground disturbing activities in tortoise habitat regardless of the time of year. The goal of a clearance survey is to find all tortoises on the surface and in burrows that could be harmed by construction activities. Surveys will cover 100 percent of the acreage to be disturbed. All potential burrows within 30.5 m (100 ft) of construction activity will be marked and avoided to the extent practicable. Those that cannot be avoided will be excavated by the Authorized Biologist.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-36	Tortoises found on the surface during preconstruction clearance surveys or during construction activities will be moved out of harm's way and released within 500 m (1,640 ft) from point of collection.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-37	Tortoises found in burrows during preconstruction clearance surveys or during construction activities during the species' less active period (November to March) will be avoided to the extent practicable. Those that cannot be avoided will be excavated and the tortoise removed, blocked into an artificial or empty natural burrow within 500 m (1,640 ft) from the construction area, and monitored until construction activities in the area are complete. Excavation, creation of artificial burrows, and handling of eggs, juveniles and adults will be conducted in accordance with the Service's Desert Tortoise Field Manual (December 2009) or more current Service guidance.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented. CH2M HILL, 2011a; GANDA, 2010b

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-38	During construction, parked vehicles will be inspected prior to being moved. If a tortoise is found beneath a vehicle, the Authorized Biologist will be contacted to move the animal out of harm's way, or the vehicle will not be moved until the tortoise leaves on its own accord. The Authorized Biologist will be responsible for taking appropriate measures to ensure that any tortoises moved in this manner is not exposed to temperature extremes which could be harmful to the animal.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-39	Constructed road berms in modeled, critical, and occupied habitat will be less than 30.48 cm (12 in) in height and have slopes less than 30 degrees.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-40	A trash collection system will be established to ensure that all food and other trash that could attract tortoise predators is properly disposed of in self-closing, sealable containers with lids that latch to prevent wind, common ravens, and mammals from opening containers. All trash receptacles will be regularly inspected and emptied to prevent spillage and maintain sanitary conditions, and removed from the project footprint when construction activities are complete.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented during construction. CH2M HILL, 2011a; GANDA, 2010b
Biology	CM-41	Road-killed animals or other carcasses detected in the DPV2 ROW access road during DPV2-related construction activities will be picked up and disposed of immediately (e.g., removal to a landfill or disposal at SCE facility). For special-status species road-kill, the Qualified Biologist or FCR will contact CDFG and Service within 1 working day of receipt of the carcass for guidance on disposal or storage of the carcass.	During Construction	Yes	Yes	This measure will be implemented during construction.
Biology	CM-42	The goal of the RCP will be to utilize methods to deter raven depredation of juvenile tortoises, as well as other wildlife species that may be listed or may be considered sensitive, in order to ensure that overall numbers of tortoises along DPV2 do not decrease. The plan will incorporate an adaptive management strategy that will be implemented immediately following construction and evaluated after 5 years of monitoring. The following activities will be implemented as part of the RCP: (1) Common Raven Nest Monitoring and (2) Contribution to the Raven Management Plan. Common Raven Nest Monitoring: A Qualified Biologist(s) or Service-approved SCE designee with expertise identifying common raven nests and tortoise remains (e.g., carcass, shell and bone fragments) will conduct surveys for the presence of common raven nests on DPV2 tower structures and for the presence of tortoise remains within a 15-m (49-ft) radius of each tower in tortoise modeled, critical, and occupied habitat. The name and qualifications of the Qualified Biologist will be submitted to the BLM, Service, and CDFG for approval 30 days before the commencement of monitoring each year. Nest surveys will be conducted at least once per month, between the 15th and last day of each month, during the primary common raven nest building period (February to May) and will begin the first common raven nesting season following the completion of tower construction in tortoise habitat. Nest surveys methods may include vehicular windshield surveys or pedestrian surveys, as appropriate. In the event that a common raven is documented initiating a new nesting attempt during the May surveys, follow up visits to that nest will be made in the subsequent months to establish whether or not the pair is bringing tortoises back to the nest. Throughout the survey period, if tortoise remains are found below an active nest, SCE will document the remains and verify the nesting status of the common ravens (e.g., incubating, feeding nestlings), herein referred to as offending ravens, and notify the BLM, Service, and CDFG verbally (via phone call) and in writing (via email or fax) within 24 hours of documenting the remains. Upon being notified, the Service will contact the Common Raven Management Working Group which will coordinate immediate removal of the offending common raven(s). SCE will establish a Cooperative Service agreement with USDA/APHIS allowing for Wildlife Services to conduct the removal efforts of offending common raven(s) within the DPV2 ROW. SCE will be responsible for expenses attributed to removal of offending ravens nesting on DPV2 towers. Also, at least once per year outside of the avian breeding season and the tortoise's more active season (April thru May and September thru October), SCE will remove all previously documented offending raven nests from all DPV2 tower structures along the surveyed transmission line and completely dispose of the nesting material so that it is no longer available for use for nest building (e.g., removal to a landfill or disposal at SCE facility). Raven nest removal will be scheduled in a manner that does not impact personnel safety or system reliability. The Qualified Biologist(s) or Service-approved SCE designee will also conduct nest surveys at the Devers and Colorado River substations. Surveys will begin in February and will continue through May, occurring between the 15th and last day of each month. If an active common raven nest is located, searches for the presence of tortoise remains within a 15-m (49-ft) radius of the nest will be conducted. If tortoise remains are found, SCE will follow the same procedure outlined above. Similarly, offending ravens nesting on the substation facilities will be removed in accordance with the aforementioned procedures. Raven nest removal will be scheduled in a manner that does not impact personnel safety or system reliability. SCE will submit a report on the survey effort and a GIS layer to the Service of all the nests recorded during the year within 90 days of the last survey effort. The Service will be responsible for sharing the nest information with the Common Raven Management Work Group. An evaluation of the	Post Construction		Yes	This measure applies to post-construction monitoring activities associated with DPV2 tower structures; therefore, this measure will be implemented.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-43	To partially offset the impacts of permanent and temporary/long-term losses of tortoise habitat, SCE will acquire at least 670.16 ha (1,656 ac) of tortoise habitat. For impacts to habitat in the Chuckwalla Critical Habitat Unit (CHU) or Chuckwalla Desert Wildlife Management Area (DWMA) but outside of modeled habitat, the compensation ratio will be 5:1 for permanent and temporary/long-term impacts to tortoise habitat [63.54 ha (157 ac) of impact × 5 for a total of 1,939.78 ha (785 ac)]. For habitat in the Chuckwalla CHU or DWMA also identified as modeled habitat, the compensation ratio also will be 5:1 [43.71 ha (108 ac) of impact × 5 for a total of 218.53 ha (540 ac)]. For impacts to modeled habitat outside the Chuckwalla CHU or DWMA, the compensation ratio will be 1:1 for permanent and temporary/long-term impacts to tortoise habitat [72.84 ha (180 ac) of impact × 1 for a total of 72.84 ha (180 ac)]. For impacts to occupied habitat outside the Chuckwalla CHU, DWMA, or modeled habitat, the compensation ratio will also be 1:1 [61.11 ha (151 ac) of impact × 1 for a total of 61.11 ha (151 ac)]. The lands will be purchased either by SCE or SCE can deposit funds with the NFWF under the REAT account governed by the REAT/NFWF MOA (REAT/NFWF MOA 2010); if funds are deposited with the NFWF, a compensation fee will be assessed based on current fair market appraised value for the specific geographic area in which the acquisition occurs. The acquired lands will occur in tortoise habitat with equivalent function and value. The replacement habitat is intended to benefit the population of tortoises adversely affected by the project. Therefore, replacement habitat will be acquired to offset impacts as follows: (a) habitat intended to replace modeled habitat in the CVMSHCP area will be located within or adjacent to priority conservation areas in the CVMSHCP area, (b) habitat intended to compensate for impacts to critical habitat in the CVMSHCP area will be located within critical habitat in the CVMSHCP area, (c) habitat intended to compensate for impacts to critical habitat outside of the CVMSHCP area will be located within critical habitat in the NECO plan area, and (d) habitat intended to replace occupied habitat outside of the CVMSHCP area and outside of critical habitat will be located within the NECO plan area. The BLM, Service, and CDFG will coordinate to reach mutual agreement on the selection and ownership/management of acquired lands. If funds are provided to NFWF, the compensation (1) funds will be provided no later than 30 days prior to ground disturbance, (2) lands will be acquired no later than 18 months after ground-disturbing activity, and (3) lands will be conserved in perpetuity by a legal mechanism agreed to by the three agencies. SCE will establish a management fund for the agency that owns and manages the acquired lands. The management fund will consist of an interest-bearing account (as described in the REAT/NFWF MOA), with the amount of capital commensurate to generate sufficient interest to fund all monitoring, management, and protection of the acquired lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and other actions designed to protect or improve the habitat values of the acquired lands. A Property Analysis Record, as described at: http://cnlm.org/cms/index.php?option=com_content&task=view&id=21&Itemid=155 or comparable method, will be conducted by the SCE and reviewed by the BLM, Service, and CDFG, to determine the management needs and costs described above, which then will be used to calculate the amount of capital needed for the management fund. This management fund will be held and managed by NFWF or another entity approved by the BLM, Service, and CDFG. If conservation lands are acquired directly by SCE they must meet the CDFG's fully mitigated standard.	During Construction	Yes	Yes	The Project elements contain desert tortoise habitat. SCE will purchase compensatory mitigation land through Wildlands LLC. USFWS, 2011
Biology	CM-44	General O&M Plan. SCE will submit an O&M Plan for the DPV2 project to the BLM, Service, and CDFG within 90 days following the completion of construction activities. The project-specific O&M Plan will specify the location of maintained facilities, patrol and inspection procedures, detailed description of routine O&M activities, location of suitable habitat for listed plant and wildlife species covered in this biological/conference opinion, measures to avoid and minimize impacts to listed plants and wildlife, and procedures for action and reporting during non-routine maintenance activities. The O&M plan will include biological resource maps compiled during the DPV2 project's construction phase to be used to determine location of suitable habitat for listed species covered by this biological/conference opinion. The worker education program for sensitive biological resource prepared for project construction will be adapted for O&M activities and be provided to O&M crews when working in suitable habitat for listed species.	Post Construction	Yes	Yes	This measure will be implemented post-construction.
Biology	CM-45	Annual O&M Work Plan. SCE will submit an annual O&M work plan to the BLM, CDFG, and Service at least 3 months prior to the initiation of Class 1 and Class 2 O&M activities planned each calendar year. The annual O&M work plan will specify all routine O&M activities anticipated to occur in the given year and include maps depicting the location of anticipated O&M activities relative to the location of modeled, critical, and/or occupied habitat for the kangaroo rat, milk-vetch, fringe-toed and horned lizards, and tortoise, and list the conservation measures from this biological/conference opinion that will be implemented to avoid, minimize, and offset impacts to these species.	Post Construction	Yes	Yes	This measure will be implemented post-construction.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-46	Annual Reporting. SCE will report on the status of all O&M activities identified in the annual O&M work plan as part of the annual report [required as a Term and Condition of this biological/conference opinion (see "Terms and Conditions" section below)]. Annual reporting will include a description of the O&M activities initiated, in progress, and completed, the location of these activities, the amount of new ground disturbance in kangaroo rat, milk-vetch, fringe-toed and horned lizard, and tortoise modeled, critical and/or occupied habitat requiring additional habitat compensation.	Post Construction	Yes	Yes	This measure will be implemented post-construction.
Biology	CM-47	Class 4 (Emergency Repair) O&M Activities. During emergency repairs, all Conservation Measures will be followed to the extent practicable. Within 2 business days of the start of emergency repairs, SCE will notify the BLM, Service, and CDFG verbally (via telephone) of the type of repairs anticipated, the location of the repairs relative to sensitive species habitat, and whether or not an Authorized or Qualified Biologist will be on site during repairs. Once the emergency has been abated, any unavoidable environmental damage will be reported to the project FCR or Qualified Biologist, who will submit a written report of such impacts to the BLM, Service, and CDFG and any other government agencies having jurisdiction over the emergency actions within 14 days of completion of emergency repair activities. If required by the BLM, Service, CDFG, or government agencies, the FCR or Qualified Biologist will develop a reasonable and feasible mitigation plan consistent with the Conservation Measures and any permits previously issued for the project by the governmental agencies.	Post Construction	Yes	Yes	This measure will be implemented post-construction.
Biology	CM-48	SCE will offset additional impacts to kangaroo rat, milk-vetch, fringe-toed or horned lizard, and tortoise modeled, critical, occupied, or suitable habitat associated with Class 2 and Class 4 O&M activities following the process and compensation ratios identified in CMs 22, 26, 30, 31, and 43 above.	Post Construction	Yes	Yes	This measure will be implemented post-construction.
Biology	CM-49	Routine Maintenance Limits. The area limits of project maintenance activities will be limited to the permanent disturbance areas noted on the final design engineering drawings and the vegetation-free buffers [typically 0.61 to 1.52 m (2 to 5 ft) beyond berm's or road's edge] for access and fire prevention along roads as described in the Routine ROW road maintenance (Class 2) description. Routine maintenance activity will be restricted to and confined within those limits. In addition, maintenance personnel will keep vehicles on existing roads. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate limits of maintenance activity where any sensitive biological resources or wildlife habitats occur. Temporary demarcation methods such as flagging tape, pin flags, or wooden stakes will be used when necessary to ensure that all workers strictly limit activities and vehicles to the designated work areas.	Post Construction	Yes	Yes	This measure will be implemented post-construction.
Biology	CM-50	All existing and new employees/contractors will undergo the WEAP (see CM 14) prior to their involvement in all Class 1 and Class 2 O&M activities.	Post Construction	Yes	Yes	The Project elements contain desert tortoise habitat. This measure will be implemented post-construction. GANDA, 2010b
Biology	CM-51	During Class 2, ground-disturbing O&M activities in occupied habitat, a Qualified Biologist will determine if trapping is necessary to reduce harm to kangaroo rats. If kangaroo rats are found in the disturbance area, and the work will take less than 2 days to complete the Qualified Biologist will trap the area and hold kangaroo rats until the project is complete. If the Class 2 O&M activity will take more than 2 days, an exclusionary fence will be installed around the work areas where impacts will occur. The area will then be trapped and animals from inside the impact area will be relocated out of harm's way, outside of exclusion fencing until construction is completed. Following completion of O&M activities in the area occupied by kangaroo rats, SCE will remove all exclusion fencing and recontour the soils to the preconstruction condition. The name and qualifications of the Qualified Biologist will be submitted to the BLM, Service and CDFG for approval at least 30 days prior to O&M activities in occupied kangaroo rat habitat.	Post Construction	Yes	Yes	This measure will be implemented post-construction.
Biology	CM-52	A Qualified Biologist will be present during Class 2, ground-disturbing O&M activities conducted in modeled habitat during the species' seed germination and growing season, generally January to May. The name and qualifications of the Qualified Biologist will be submitted to the BLM and Service for approval at least 30 days prior to project construction in modeled habitat. Milk-vetch locations identified during the preconstruction surveys will be surveyed to determine if additional germination has occurred. Any milkvetch locations found during O&M activities will be marked (e.g., flagging tape, pin flags, wooden stakes) and avoided to the maximum extent possible. Where avoidance is not possible, milk-vetch plants will be salvaged following the Plant Salvage Plan (see CM 25). The name and qualifications of the Qualified Biologist will be submitted to the BLM, Service, and CDFG for approval at least 30 days prior to O&M activities in modeled habitat.	Post Construction	No	No	The Project elements do not support modeled Stephens' kangaroo rat habitat. Therefore, this measure does not apply. Dudek, 2009

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Biology	CM-53	Class 2, ground-disturbing O&M activities within modeled/blow sand habitat, defined in the post-construction O&M Plan Maps, will be conducted between April and October (inclusive of both months) when air temperature is above 75 degrees Fahrenheit to minimize potential impacts to fringe-toed and horned lizards.	Post Construction	No	No	The Project elements do not support modeled Coachella Valley milk-vetch habitat. Therefore, this measure does not apply.
Biology	CM-54	To reduce direct impacts to fringe-toed and horned lizards during O&M activities, a Qualified Biologist will monitor all Class 2 ground-disturbing activities within modeled/blow sand habitat. The Qualified Biologist(s) will be present throughout ground disturbing O&M activities in modeled/blow sand habitat to identify, capture, and relocate any individuals to the nearest suitable habitat outside of the DPV1/DPV2 ROW. The name and qualifications of the Qualified Biologist will be submitted to the BLM, Service, and CDFG for approval at least 30 days prior to O&M activities in modeled/blow sand habitat.	Post Construction	No	No	The Project elements do not support modeled Coachella Valley fringe-toed lizard or sand blow habitat. Therefore, this measure does not apply. CH2M HILL. 2011a; GANDA, 2010b
Biology	CM-55	During the tortoise's most active season (April thru May and September thru October), operators of heavy equipment (such as road graders) will be accompanied by an Authorized Biologist during Class 2 ground-disturbing O&M activities in tortoise modeled, critical habitat, and/or occupied habitat. The Authorized Biologist will have the responsibility and authority to halt all project activity should danger to a tortoise arise. Work will proceed only after hazards to the tortoise are removed, the tortoise is no longer at risk, or the tortoise has been moved from harm's way of its own will or by the Authorized Biologist. The name and qualifications of the Authorized Biologist will be submitted on the Service's Desert Tortoise Authorized Biologist Request Form (September 2009) or most current version to the BLM, Service, and CDFG for approval at least 30 days prior to initiation of ground disturbing O&M activities in tortoise habitat.	Post Construction	Yes	Yes	This measure will be implemented post-construction.
Cultural and Paleontological	MM C-1a	Inventory and evaluate cultural resources in Final APE. Prior to construction and all other surface disturbing activities, the Applicant shall have conducted and submitted for approval by the BLM (and the USFS, on San Bernardino National Forest land and the THPO on Agua Caliente land) an inventory of cultural resources within the project's final Area of Potential Effect. The nature and extent of this inventory shall be determined by the BLM in consultation with the appropriate State Historic Preservation Officer (SHPO) and shall be based upon project engineering specifications (BLM B-9.1). Results of this inventory shall also be filed with appropriate State repositories and local governments. As part of the inventory, the Applicant shall conduct field surveys of sufficient nature and extent to identify cultural resources that would be affected by tower pad construction, reconductoring activities, access road installation, and transmission line construction and operation. At a minimum, field surveys shall be conducted along newly proposed access roads, new construction yards, new tower sites, and any other projected areas of potential ground disturbance outside of the previously surveyed potential impact areas. Site-specific field surveys also shall be undertaken at all projected areas of impact within the previously surveyed corridor that coincide with previously recorded resource locations. The selected right-of-way shall be staked prior to the cultural resource field surveys (based on BLM B-9.2). As part of the inventory report, the Applicant shall evaluate the significance of all affected cultural resources on the basis of surface observations and provide recommendations with regard to their eligibility for the National Register of Historic Places (NRHP) or local registers. Preliminary determinations of NRHP eligibility will be made by the BLM, in consultation with the appropriate local governments, the USFS (on USFS land), and the appropriate SHPO or THPO (based on BLM B-9.3).	Pre-construction	YES	YES	These project elements are located within the previously surveyed area for the DPV2 Project (Eckhardt et al. 2011) and have been submitted to the agencies under separate cover from this NTPR.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Cultural and Paleontological	MM C-1b	<p>Avoid and protect potentially significant resources. On the basis of preliminary National Register of Historic Places (NRHP) eligibility assessments (Mitigation Measure C-1a) the BLM may require the relocation of the line, ancillary facilities, or temporary facilities or work areas, if any, where relocation would avoid or reduce damage to cultural resource values (based on BLM B-9.5). Where operationally feasible, potentially NRHP-eligible resources shall be protected from direct project impacts by project redesign.</p> <p>Where the BLM decides that potentially NRHP-eligible cultural resources cannot be protected from direct impacts by project redesign, the Applicant shall undertake additional studies to evaluate the resources' NRHP-eligibility and to recommend further mitigative treatment. The nature and extent of this evaluation shall be determined by the BLM in consultation with the appropriate State Historic Preservation Officer (SHPO) and shall be based upon final project engineering specifications. Evaluations will be based on surface remains, subsurface testing, archival and ethnographic resources, and in the framework of the historic context and important research questions of the project area. Results of those evaluation studies and recommendations for mitigation of project effects shall be incorporated into a Historic Properties Treatment Plan consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).</p> <p>All potentially NRHP-eligible resources (as determined by the BLM) that will not be affected by direct impacts, but are within 50 feet of direct impact areas will be designated as Environmentally Sensitive Areas (ESAs). Protective fencing, or other markers, at the BLM's discretion, shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. Construction personnel and equipment shall be instructed on how to avoid ESAs. ESAs shall not be identified specifically as cultural resources. A monitoring program shall be developed as part of the Historic Properties Treatment Plan and implemented by the Applicant to ensure the effectiveness of ESAs.</p>	Pre-construction and during construction	YES	YES	Avoidence of potentially significant cultural resources in the APE will be implemented as outlined in the HPMP.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Cultural and Paleontological	MM C-1c	<p>Develop and implement Historic Properties Treatment Plan. Upon approval of the inventory report and the National Register of Historic Places (NRHP)-eligibility evaluations by the BLM, consistent with Mitigation Measures C-1a (Inventory and evaluate cultural resources in Final APE) and C-1b (Avoid and protect potentially significant resources), the Applicant shall prepare and submit for approval a Historic Properties Treatment Plan (HPTP) for NRHP-eligible cultural resources to mitigate or avoid identified impacts. Treatment of cultural resources shall follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act and other appropriate State and local regulations. Avoidance, recordation, and data recovery will be used as mitigation alternatives (BLM B-9.4). The HPTP shall be submitted to the BLM and CPUC for review and approval.</p> <p>As part of the HPTP, the Applicant shall prepare a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP-eligible sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection, and site documentation. A possible exception would be a site where burials, cremations, or sacred features are discovered that cannot be avoided.</p> <p>The HPTP shall define and map all known NRHP-eligible properties in or within 50 feet of all project APEs and shall identify the cultural values that contribute to their NRHP-eligibility. A cultural resources protection plan shall be included that details how NRHP-eligible properties will be avoided and protected during construction. Measures shall include, at a minimum, designation and marking of Environmentally Sensitive Areas (ESAs), archaeological monitoring, personnel training, and effectiveness reporting. The plan shall detail: what measures will be used; how, when, and where they will be implemented; and how protective measures and enforcement will be coordinated with construction personnel.</p> <p>The HPTP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried NRHP-eligible cultural resources, including burials, cremations, or sacred features. The HPTP shall detail provisions for monitoring construction in these high-sensitivity areas. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing NRHP-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the HPTP shall detail the methods, the consultation procedures, and the timelines for assessing NRHP-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and CPUC, appropriate local governments, appropriate Native Americans, and the appropriate State Historic Preservation Officer prior to implementation.</p> <p>The HPTP shall include provisions for analysis of data in a regional context, reporting of results within one year of completion of field studies, curation of artifacts (except from private land) and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that</p>	Pre-construction and during construction	YES	YES	A Draft HPMP was submitted for review 9/2/2011 and is pending approval. All measures outlined in the HPMP will be implemented prior to construction.
Cultural and Paleontological	MM C-1d	<p>Conduct data recovery to reduce adverse effects. If National Register of Historic Places (NRHP)-eligible resources, as determined by the BLM and SHPO, cannot be protected from direct impacts of the Proposed Project, data-recovery investigations shall be conducted by the Applicant to reduce adverse effects to the characteristics of each property that contribute to its NRHP eligibility. For sites eligible under Criterion d, significant data would be recovered through excavation and analysis. For properties eligible under Criteria a, b, or c, data recovery may include historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation. Data gathered during the evaluation phase studies and the research design element of the Historic Properties Treatment Plan (HPTP) shall guide plans and data thresholds for data recovery; treatment will be based on the resource's research potential beyond that realized during resource recordation and evaluation studies. If data recovery is necessary, sampling for data-recovery excavations will follow standard statistical sampling methods, but sampling will be confined, as much as possible, to the direct impact area. Data-recovery methods, sample sizes, and procedures shall be detailed in the HPTP consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan) and implemented by the Applicant only after approval by the BLM and CPUC. Following any field investigations required for data recovery, the Applicant shall document the field studies and findings, including an assessment of whether adequate data were recovered to reduce adverse project effects, in a brief field closure report. The field closure report shall be submitted to the BLM and CPUC for their review and approval, as well as to appropriate State repositories and local governments. Construction work within 100 feet of cultural resources that require data recovery fieldwork shall not begin until authorized by the BLM or CPUC, as appropriate.</p>	Pre-construction, during and post construction	No	No	Data recovery methods and requirements are outlined in the HPMP and will be implemented prior to construction occurring in areas requiring data recovery. If any cultural resources are discovered during project activities, the Plan of Discovery as outlined in the HPMP will be implemented.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Cultural and Paleontological	MM C-1e	<p>Monitor construction. The Applicant shall implement archaeological monitoring by a professional archaeologist during subsurface construction disturbance at all locations identified in the Historic Properties Treatment Plan (HPTP). Full-time monitoring shall occur when ground disturbing activities take place at all archaeological High-Sensitivity Areas described above and at all cultural resource Environmentally Sensitive Areas (ESAs). These locations and their protection boundaries shall be defined and mapped in the HPTP. Intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the BLM and CPUC. Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project, and under direct supervision of a principal archaeologist. The qualifications of the principal archaeologist and archaeological monitors shall be approved by the BLM and CPUC. A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. The monitoring plan in the HPTP shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.</p> <p>Compliance with and effectiveness of the cultural resources monitoring plan shall be documented by the Applicant in a monthly report to be submitted to the BLM and CPUC, and, on San Bernardino National Forest, to the USFS, and on Agua Caliente land, to the THPO, or the duration of project construction. In the event that cultural resources are not properly protected by ESAs, all project work in the immediate vicinity shall be diverted by the archaeological monitor until authorization to resume work has been granted by the BLM and CPUC. The Applicant shall notify the BLM of any damage to cultural resource ESAs. The Applicant shall consult with the BLM to mitigate damages and to increase effectiveness of ESAs. At the discretion of the BLM and CPUC, such mitigation may include, but not be limited to modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.</p>	Pre-construction and during construction	YES	YES	Monitor construction as outlined in the HPMP.
Cultural and Paleontological	MM C-1f	<p>Train construction personnel. 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. The Applicant shall complete training for all construction personnel. 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 Environmentally Sensitive Areas (ESAs) 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 artifacts or other cultural materials on or off the right-of-way by the Applicant, his 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 (BLM B-9.11). The following issues shall be addressed in training or in preparation for construction:</p> <ul style="list-style-type: none"> • All construction contracts shall include clauses that 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. • The Applicant shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, 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. • Upon discovery of potential buried cultural materials by archaeologists or construction personnel, or damage to an ESA, work in the immediate area of the find shall be diverted and the Applicant's archaeologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's archaeologist will consult with the BLM to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs. 	Pre-construction and during construction	YES	YES	A cultural/paleontological WEAP has been submitted and accepted by the CPUC. This WEAP training will be required for all construction personal prior to development or use of all yards.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Cultural and Paleontological	MM C-2a	Consult agencies and Native Americans. If human remains are discovered during construction, all work will be diverted from the area of the discovery and the BLM authorized officer will be informed immediately. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains. The Applicant shall assist and support the BLM in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the BLM. The Applicant shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM.	During construction	YES	YES	If human remains and/or cultural items (funerary objects) defined by the NAGPRA are inadvertently discovered during construction activities, all work in the vicinity of the find will cease within a 200-foot radius of the remains, the area will be protected by posting a monitor or construction worker to ensure that no additional disturbance occurs, the monitor will contact SCE archaeologist Audry Williams who will notify the Riverside County Coroner, BLM Field Manager, and BLM archaeologist George Kline pursuant to Section (3)(d)(1) of the NAGPRA. If the discovery occurs at the end of the work day, the area must be secured by posting a guard and covering the area with heavy metal plates (if remains are found below surface in a trench) until the BLM Field Manager provides specific protection and treatment guidance.
Cultural and Paleontological	MM C-3a	Complete consultation with Native American and other Traditional Groups. The Applicant shall provide assistance to the BLM, as requested by the BLM, to complete 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 assess the impact of the Proposed Project on Traditional Cultural Properties or other resources of Native American concern. As directed by the BLM, the Applicant shall undertake required treatments, studies, or other actions that result from such consultation. Written documentation of the completion of all pre-construction actions shall be submitted by the Applicant and approved by the BLM at least 30 days before commencement of construction activities. Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties Treatment Plan and implemented by the Applicant, consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).	Pre-construction and during construction	YES	YES	Consultation with Native Americans is on going between the BLM and tribes who have expressed interest in the DPV2 project.
Cultural and Paleontological	MM C-4a	Inventory paleontological resources in Final APE. Prior to construction and all other surface-disturbing activities, the Applicant shall have conducted and submitted for approval an inventory of potentially significant paleontological resources, based on field inspection of areas of high or undetermined paleontological sensitivity, that will be affected by the project as determined by the BLM and CPUC. As part of the inventory report, the Applicant shall evaluate and refine the paleontological sensitivity modeling of sediments that will be affected.	Pre-construction	YES	YES	These project elements are located within the area previously inventoried for paleontological resources for the DPV2 Project (CH2M Hill 2010) and the report has been submitted to the agencies under separate cover from this NTPR.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Cultural and Paleontological	MM C-4b	Develop Paleontological Monitoring and Treatment Plan. The Applicant shall, upon approval of the paleontological inventory report by the BLM and CPUC, prepare and submit for approval a plan to mitigate identified impacts. The Paleontological Monitoring and Treatment Plan shall identify construction impact areas of high sensitivity for encountering significant resources and the depths at which those resources are likely to be discovered. The Plan shall outline a coordination strategy to ensure that all construction disturbance in high sensitivity sediments will be monitored full-time by qualified professionals. Sediments of undetermined sensitivity will be spot-checked. 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, post-excavation preparation and analysis of specimens, final duration of specimens at a federally recognized, accredited facility, 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 professionals on a currently valid Paleontological Collecting Permit for the appropriate State. Notices to proceed will be issued by the BLM CPUC following approval of the Paleontological Monitoring and Treatment Plan.	Pre-construction	YES	YES	Procedures for monitoring construction is outlined in the PMTP (CH2M Hill 2010), which has been submitted to the agencies under separate cover from this NTPR.
Cultural and Paleontological	MM C-4c	Monitor construction for paleontology. Based on the paleontological sensitivity assessment and Monitoring and Treatment Plan consistent with Mitigation Measure C-4b (Develop Paleontological Monitoring and Treatment Plan), the Applicant shall conduct full-time construction monitoring in areas where and when sediments of high paleontological sensitivity will be disturbed. Construction activities shall be diverted when data recovery of significant fossils is warranted.	During construction	YES	YES	These project elements are located in areas defined as LOW, potential for paleontological resources. Monitoring of construction activities
Cultural and Paleontological	MM C-4d	Conduct paleontological data recovery. If avoidance of significant paleontological resources is not feasible or appropriate, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the Applicant, in accordance with the BLM-approved Treatment Plan per Mitigation Measure C-4b (Develop Paleontological Monitoring and Treatment Plan).	During construction	YES	YES	If resources are uncovered, treatment methods outlined in the PMTP will be followed.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Cultural and Paleontological	MM C-4e	<p>Train construction personnel. All construction personnel shall be trained regarding the recognition of possible buried paleontological resources and protection of all paleontological resources during construction, prior to the initiation of construction or ground-disturbing activities. The Applicant 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 (ESAs) 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 federally protected fossils on or off the right-of-way by the Applicant, his representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order (BLM B-9.11). The following issues shall be addressed in training or in preparation for construction:</p> <ul style="list-style-type: none"> • All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried paleontological deposits, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources. • The Applicant shall provide a background briefing for supervisory construction personnel describing the potential for exposing paleontological resources, the location of any potential ESA, 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 potential buried paleontological materials by paleontologists or construction personnel, work in the immediate area of the find shall be diverted and the Applicant's paleontologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's paleontologist will notify the BLM and CPUC and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure C-5b (Develop Paleontological Monitoring and Treatment Plan). 	Pre-construction and during construction	YES	YES	A cultural/paleontological WEAP has been submitted and accepted by the CPUC. This WEAP training will be required for all construction personal prior to construction.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Cultural and Paleontological	MM C-5a	<p>Protect and monitor NRHP-eligible properties. Protect and monitor NRHP-eligible properties. The Applicant shall design and implement a long-term plan to protect National Register of Historic Places (NRHP)-eligible sites from direct impacts of project operation and maintenance and from indirect impacts, such as erosion that result from the presence of the project. The plan shall be developed in consultation with the BLM to design measures that will be effective against project maintenance impacts and project -related vehicular impacts. The plan shall also include protective measures for NRHP-eligible properties within the DPV corridor that will experience operational and access impacts as a result of the Proposed Project. The proposed measures may include restrictive fencing or gates, permanent access road closures, signage, stabilization of erosion, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting NRHP-eligible properties. 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 NRHP-eligible properties. The plan shall be submitted to the BLM and CPUC for review and approval at least 30 days prior to project operation.</p> <p>Monitoring of selected sites shall be conducted annually by a professional archaeologist for a period of five 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 one month following the annual resource monitoring. The report shall indicate any properties that have been impacted by erosion or vehicle or maintenance impacts. For properties that have been impacted, the Applicant shall provide recommendations for mitigating impacts and for improving protective measures. After the fifth year of resource monitoring, the BLM or CPUC, as appropriate, will evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the BLM or CPUC may require that the Applicant 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 project operation.</p> <p>If the annual monitoring program identifies adverse effects to National Register of Historic Places (NRHP)-eligible properties from operation or long-term presence of the project, or if, at any time, the Applicant, BLM or CPUC become aware of such adverse effects, the Applicant shall notify the BLM and CPUC immediately and implement mitigation for adverse changes, as directed by the BLM and CPUC. At the discretion of the BLM and CPUC, such mitigation may include, but not be limited to modification of protective measures, refinement of monitoring protocols, data recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection.</p>	Pre-construction and post construction	YES	YES	ESA Fencing will be installed around all resources prior to construction activities as outlined in the HPMP. If any cultural resources are discovered during project activities, the Plan of Discovery as outlined in the HPMP will be implemented.
Cultural and Paleontological	APM C-7	When necessary to relocate the proposed line, ancillary facilities, temporary facilities, or work areas as a result of inventory, onsite avoidance decisions, or the Holder's approved request for relocation, the Holder shall inventory the proposed new locations for cultural resources and provide inventory results to the Authorized Officer prior to construction. Any mitigation deemed necessary by the Authorized Officer shall be completed prior to undertaking any surface disturbing activities. (BLM B-9.7)	Pre-construction and during construction	YES	YES	Where feasible, project components have been moved to avoid cultural resources. No construction activities will take place until all mitigation measures are implemented per the HPMP.
Cultural and Paleontological	APM C-8	All cultural resource work undertaken by the Holder on public lands shall be carried out by qualified professionals designated on a currently valid Cultural Resource Use Permit for the appropriate State. (BLM B-9.8)	Pre-construction and during construction	YES	YES	All cultural inventory has been completed under BLM ARPA permits and Filed Work Authorization.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Cultural and Paleontological	APM C-9	Notices to proceed (NTP) will be issued following completion, and approval by the Authorized Officer, of any fieldwork determined necessary through the inventory, evaluation, and consultation process described above. (BLM B-9.9)	Pre-construction	YES	YES	All NTPRs will be submitted to both the CPUC and the BLM.
Cultural and Paleontological	APM C-10	Vehicles and equipment shall be confined and operated only within areas specified by the Authorized Officer. (BLM B-9.10)	Pre-construction and during construction	YES	YES	Vehicles and equipment will remain outside of all ESA. ESA will be monitored to ensure compliance.
Geology, Mineral Resources and Soils	MM G-1a	Protect desert pavement. Grading for new access roads or work areas in areas covered by desert pavement shall be avoided if possible. If avoidance of these areas is not possible, the desert pavement surface shall be protected from damage or disturbance from construction vehicles by use of temporary mats on the surface. A plan for identification and avoidance or protection of sensitive desert pavement shall be prepared and submitted to the CPUC, BLM, and USFWS for review and approval at least 60 days prior to start of construction.	Pre-construction and during construction	YES	YES	This measure is addressed through the Project-wide Desert Pavement Plan.
Geology, Mineral Resources and Soils	MM G-2a	Design-level geotechnical studies shall be performed by the Applicant to identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion shall be utilized, such as 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. Study results and proposed solutions shall be provided to the CPUC and BLM, as appropriate, for review and approval at least 60 days before construction.	Pre-construction and during construction	YES	YES	Measure will be implemented.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Geology, Mineral Resources and Soils	MM G-3a	Conduct geotechnical surveys for landslides. The Applicant shall perform design level geotechnical surveys in areas crossing and adjacent to hills and mountains. These surveys will acquire data that will allow identification of specific areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved transmission line route and in other areas of ground disturbance, such as grading for access and spur roads. The investigations shall include an evaluation of subsurface conditions, identification of potential landslide hazards, and provide information for development of excavation plans and procedures. Where landslide hazard areas cannot be avoided, appropriate engineering design and construction measures shall be incorporated into the project designs to minimize potential for damage to project facilities. A report documenting these surveys and design measures to protect structures shall be submitted to the CPUC and BLM for review and approval at least 60 days before construction	Pre-construction and during construction	NO	NO	Measure will be implemented.
Geology, Mineral Resources and Soils	MM G-5a	Design project facilities to avoid impact from ground failure. Since seismically induced ground failure has the potential to damage or destroy project components, the Applicant shall complete design-level geotechnical investigations at tower locations in areas with potential liquefaction-related impacts. These studies shall specifically assess the potential for liquefaction and lateral spreading hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project designs. A report documenting results of the geotechnical surveys shall be submitted to the CPUC and BLM for review and approval at least 60 days before construction.	Pre-construction and during construction	NO	NO	Measure will be implemented.
Geology, Mineral Resources and Soils	MM G-6a	Coordinate with quarry operations. Operations and management personnel for the Indio Pit quarry shall be consulted regarding locations of active mining and for coordination of construction activities in and through those areas. A plan to avoid or minimize interference with mining operations shall be prepared in conjunction with mine/quarry operators prior to construction. SCE shall document compliance with this measure prior to the start of construction by submitting the plan to the CPUC and BLM for review at least 60 prior to the start of construction.	Pre-construction and during construction	NO	NO	This mitigation measure does not apply to the CRS-Red Bluff transmission line or OPGW replacement as there are no quarry operations in the vicinity.
Geology, Mineral Resources and Soils	MM G-7a	Minimize project structures within active fault zones. SCE shall perform a geologic/geotechnical study to confirm the location of mapped traces of active and potentially faults crossed by the project route. For crossings of active faults, the towers shall be placed as far as feasible outside the area of mapped fault traces. Compliance with this measure shall be documented to the CPUC and BLM in a report submitted for review and approval at least 60 days prior to the start of construction.	Pre-construction and during construction	NO	NO	Not applicable to the CRS-Red Bluff transmission line or OPGW.
Geology, Mineral Resources and Soils	APM G-1	The line will be located to minimize the disruption of any active mining operations. (BLM B-2.1)	Pre-construction	NO	NO	This mitigation measure does not apply to the CRS-Red Bluff transmission line or OPGW replacement as there are no mining operations in the vicinity.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Geology, Mineral Resources and Soils	APM G-2	Individual transmission towers will not be sited on nor straddle the mapped traces of any known fault that has been designated active or potentially active. In areas where known faults are present, the Holder will visually check the tower site area before clearing, and will check the tower footing holes for any trace of a previously unmapped fault. If manifestations of a fault are found, construction will immediately stop at that site and the Holder will consult with the Holder's Geologist and the BLM Authorized Officer. The Holder's Geologist and the BLM Authorized Officer will determine if it is a fault trace and if so, will ascertain if it is active, potentially active, or inactive. (BLM B-2.2)	Pre-construction	NO	NO	Not applicable to the CRS-Red Bluff transmission line or OPGW replacement.
Geology, Mineral Resources and Soils	APM G-3	Towers will be located so that the line will span the surface traces of active and potentially active faults such that a relative lateral surface displacement would shorten the span between towers, and thus avoid potential line breaks. Where this is not feasible, the Holder will incorporate slack spans to bridge the fault(s) such that the projected lateral surface displacement, as forecast by the Holder's Geologist and accepted by the BLM Authorized Officer, will not structurally affect the associated towers. (BLM B-2.3)	Pre-construction	NO	NO	Not applicable to the CRS-Red Bluff transmission line or OPGW replacement.
Geology, Mineral Resources and Soils	APM G-4	In general, an appropriate tower design which accounts for lateral wind loads and conductor loads exceeds any credible seismic loading (groundshaking). (BLM B-2.4)	Pre-construction	YES	NO	Measure will be implemented.
Geology, Mineral Resources and Soils	APM G-5	Towers will be located to avoid areas of highly sensitive dune sand areas. Where these areas cannot be avoided, towers will be located to minimize disturbance to the deposits at a site approved by the BLM Authorized Officer. (BLM B 2.5. Note: Text here omits references to specific figures and maps in the original [1987 88] DEIR and DEIS.)	Pre-construction	YES	NO	Measure will be implemented.
Geology, Mineral Resources and Soils	APM G-6	Wherever feasible to minimize the potential for slope instability, towers will be located to avoid gullies or active drainages, and over-steepened slopes. (BLM B-2.6)	Pre-construction	YES	NO	Measure will be implemented.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Geology, Mineral Resources and Soils	APM G-7	SCE will provide a list of sites where helicopter construction is recommended. The Authorized Officer may require, on a site-specific basis, helicopter assisted construction in sensitive areas. Sensitive areas are those that exhibit both (1) high erosion potential and/or slope instability; and (2) a lack of existing stub roads within a reasonable distance of the tower site or existing access that is not suitable for upgrading to accommodate conventional tower construction or line stringing equipment, and where it is determined that, after field review, the issues of erosion and/or slope instability cannot be successfully mitigated through implementation of accepted engineering practices. (BLM B-2.7)	Pre-construction	YES	YES	Measure will be implemented
Geology, Mineral Resources and Soils	APM G-8	Mitigation of potentially significant impacts to the western end of the proposed transmission line due to (1) potential surface fault rupture along the Banning, Mission Creek, and Mecca Hills faults, and (2) potential for severe seismic shaking can be achieved by standard design methods listed below: a. Towers will be sited so as not to straddle active fault traces. b. The alignment will be designed to cross an active fault such that future rupture on the fault would not cause excessive stress on the line or the towers. c. Standard foundation and structural design measures will be utilized to minimize the impact from severe seismic shaking. (BLM B-2.8)	Pre-construction and during construction	NO	NO	This measure does not apply to the CRS-Red Bluff transmission line and OPGW replacement.
Geology, Mineral Resources and Soils	APM G-9	Appropriate design of tower foundations will be used to reduce the potential for settlement and compaction. (BLM B-2.9)	Pre-construction	YES	NO	Measure will implemented.
Geology, Mineral Resources and Soils	APM G-10	New access roads and soil disturbance will be avoided or minimized in all areas designated as having high erosion hazards or potential slope instability. If the Authorized Officer, after consultation and review of alternatives (including helicopter or helicopter assisted construction), deems the proposed new access road feasible, design plans must be submitted for approval, in writing, prior to construction. (BLM B-3.1. Note: Text here omits references to specific figures and maps in the original (1987-88) DEIR and DEIS.)	Pre-construction	YES	YES	Measure will be implemented.
Geology, Mineral Resources and Soils	APM G-11	New access roads, which are required, will be designed to minimize ground disturbance from grading. They will follow natural ground contours as closely as possible and include specific features for road drainage, including water bars on slopes over 25 percent. Other measures could include drainage ditches, side ditches, slope drains, and velocity reducers. Where temporary crossings are constructed, the crossings will be restored and repaired as soon as possible after completion of the discrete action associated with construction of the line in the area. (BLM B-3.2)	Pre-construction, during and post construction	YES	YES	Measure will be implemented.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Geology, Mineral Resources and Soils	APM G-12	Side casting of soil during grading will be minimized. Excess soil and excavated soil will be properly stabilized or, dispersed around tower construction sites or on stub or access roads. (BLM B-3.3)	During construction	YES	YES	This measure will be implemented during construction as needed.
Geology, Mineral Resources and Soils	APM G-13	During grading operations, care would be exercised to minimize side casting. No earth would be removed below final elevations, and no cuts would be made deeper than necessary for clearing and road construction. (SCE)	During construction	YES	YES	This measure will be implemented during construction as needed.
Geology, Mineral Resources and Soils	APM G-14	Upon completion of construction, any drainage deficiencies would be corrected to prevent future erosion. Trees and brush would be cleared only when necessary to provide electrical clearance, line reliability, or suitable access for maintenance and construction. (SCE)	Post construction	YES	YES	Upon completion of construction, this measure will be implemented if required.
Geology, Mineral Resources and Soils	APM G-15	Counterpoise may need to be installed if the local soil conditions indicate that the soil has a resistance above 30 ohms. This is accomplished by attaching a 0.375-inch cable to the tower steel. The cable is installed 1 foot underground and extends approximately 100 feet within the ROW from two or more footings.	Pre-construction and during construction	YES	YES	This measure will be implemented either during construction or upon completion of construction if required.
Geology, Mineral Resources and Soils	APM G-16	The line would be located to minimize the disruption of any active mining operations. (SCE)	Pre-construction	NO	NO	This mitigation measure does not apply to the CRS-Red Bluff transmission line or OPGW replacement as there are no active mining operations in the vicinity.
Geology, Mineral Resources and Soils	APM G-17	Appropriate tower design would be used to mitigate the potential for impacts from very strong seismic groundshaking. In general, an appropriate tower design which accounts for lateral wind loads and conductor loads during line stringing exceeds any credible seismic loading (groundshaking). (SCE)	Pre-construction	YES	NO	Measure will be implemented.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Geology, Mineral Resources and Soils	APM G-18	Whenever possible to minimize the potential for slope instability, towers would be located to avoid gullies or active drainages, and over-steepened slopes. (SCE)	Pre-construction and during construction	YES	NO	Measure will be implemented.
Geology, Mineral Resources and Soils	APM G-19	New access roads, where required, would be designed to minimize ground disturbance from grading. They would follow natural ground contours as closely as possible and include specific features for road drainage, including water bars on slopes over 25 percent. Other measures could include drainage dips, side ditches, slope drains, and velocity reducers. Where temporary crossings are constructed, the crossings would be restored and repaired as soon as possible after completion of the discrete action associated with construction of the line. Side casting of soil during grading would be minimized. Excess soil would be properly stabilized, or if necessary, hauled to an approved disposal site. (SCE)	Pre-construction and during construction	YES	YES	Measure will be implemented.
Hydrology and Water Resources	MM H-1a	Restore disturbed soil with re-vegetation or construction of permanent erosion-control structures. Soil disturbance at towers and access roads shall be the minimum necessary and designed to prevent long-term erosion through revegetation or construction of permanent erosion control structures according to plans to be reviewed and approved by the U.S. Forest Service. Copies of the final approved plans shall be submitted to the CPUC/BLM for their files.	Pre-construction, during and post-construction	NO	NO	Not applicable to the CRS-Red Bluff transmission line or OPGW replacement.
Hydrology and Water Resources	MM H-6a	Design diversion dikes or other site remediation's to avoid damage to adjacent property. Where diversion dikes are required to protect towers or other project structures from flooding or erosion, these dikes shall be so designed as to avoid increasing the risk of erosion or flooding onto adjacent property where life, existing improvements or land values could be threatened. Diversion dike designs shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to construction.	Pre-construction	YES	NO	Measure will be implemented as required.
Hydrology and Water Resources	APM W-1	During the first year following construction, potential soil erosion sites will be inspected by the Holder after each major rainstorm as access permits. For the purpose of this measure, a major rainstorm is defined as any singular storm where the total precipitation exceeds the arithmetic mean for similar events in the area and results in flooding. Examples include cloudbursts (high quantity – short duration) or storms where saturated soils produce runoff (high quantity – long duration). (BLM B-4.1)	Post-Construction	YES	YES	This measure will be implemented post construction.
Hydrology and Water Resources	APM W-2	Construction equipment will be kept out of flowing stream channels except when absolutely necessary to construct crossings. (BLM B-4.2)	Pre-construction and during construction	YES	YES	This measure will be implemented during project construction as needed.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Hydrology and Water Resources	APM W-3	Erosion control and hazardous material plans will be incorporated into the construction bidding specifications to ensure compliance. (BLM B-4.3)	Pre-construction and during construction	YES	YES	A SWPPP has been prepared and will be implemented during construction. The proposed project will not contain enough hazardous materials to warrant a Hazardous Materials Business Plan.
Hydrology and Water Resources	APM W-4	Appropriate design of tower footing foundations, such as raised foundations and/or enclosing flood dikes, will be used to prevent scour and/or inundation by a 100-year flood.	Pre-construction and during construction	YES	NO	Measure will be implemented.
Hydrology and Water Resources	APM W-5	Towers will be located to the extent feasible, to avoid active drainage channels, especially downstream of steep hill slope areas, to minimize the potential for damage by flash flooding and mud and debris flows.	Pre-construction and during construction	YES	NO	Measure will be implemented.
Hydrology and Water Resources	APM W-6	Diversion dikes or other structural enhancements will be required to divert runoff around a tower structure if a) the location in an active channel cannot be avoided; and b) where there is a very significant flood scour/deposition threat, unless specifically exempted by BLM Authorized Officer.	Pre-construction and during construction	YES	YES	This measure will be implemented during project construction as needed.
Hydrology and Water Resources	APM W-7	Runoff from roadways will be collected and diverted from steep, disturbed or otherwise unstable slopes. (BLM B-4.7)	During construction	YES	YES	This measure will be implemented during project construction as needed.
Hydrology and Water Resources	APM W-8	Ditches and drainage concourses will be designed to handle the concentrated runoff, will be located to avoid disturbed areas, and will have energy dissipations at discharge points. (BLM B-4.8)	Pre-construction and during construction	YES	YES	This measure will be implemented during project construction as needed.
Hydrology and Water Resources	APM W-9	Cut and fill slopes will be minimized by a combination of benching and following natural topography where possible. (BLM B-4.9) *Please note SBNF Easement Conditions, Stipulation 13 may override the use of benching: 13.Tower structures and sites will be designed to conform with the terrain. Leveling and benching of the site will not be allowed.	Pre-construction and during construction	YES	YES	This measure was implemented during project design as feasible and will be implemented during project construction as needed.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Hydrology and Water Resources	MM (SEIR) H-5a	Construction site dewatering management. If groundwater is unexpectedly encountered during project construction, dewatering activities shall be performed in accordance with the California Stormwater Quality Association (CASQA) Handbook for Construction or other similar guidelines, as approved by the County of Riverside. Examples of construction site dewatering Best Management Practices include but are not limited to the following: fiber rolls, gravel bag berms, straw bale barriers, sediment basins and sediment traps, weir tanks, dewatering tanks, and various filters (gravity bag filter, sand media particulate filter, pressurized bag filter, cartridge filter). The project Applicant shall notify the Colorado River Basin Regional Water Quality Control Board (RWQCB) and County at the onset of dewatering and submit written description of all executed dewatering activities, including steps taken to return encountered groundwater to the subsurface, upon the completion of dewatering activities at the affected site(s).	During construction	NO	NO	This measure is required for the CRS Expansion and does not apply to either segment.
Hydrology and Water Resources	MM (SEIR) H-7a	Groundwater Well Contingency Plan. Prior to issuance of construction permits, the Applicant shall prepare a Groundwater Well Contingency Plan (Plan) to drill and construct a secondary supply well that would supplement groundwater production rates from the primary supply well, should the pumping capacity (daily yields) of the primary well become inadequate to meet the project requirements. The Plan shall identify the following features of the secondary supply well, should it be needed: <input type="checkbox"/> location within the Colorado River Substation (CRS) site; <input type="checkbox"/> proximity to existing wells (private and/or municipal); <input type="checkbox"/> estimated total depth, well screen depth, diameter, and estimated yield; and <input type="checkbox"/> time required to have the well drilled, constructed, developed and fully operational. The Plan shall also specify what conditions would trigger use of the second supply well, as well as the person responsible for determining when to utilize the second supply well. The County of Riverside shall be notified prior to installation of the secondary supply well, should it be necessary. The Applicant shall submit the Groundwater Well Contingency Plan to the CPUC and the County of Riverside for review and approval thirty (30) days before the start of extraction of groundwater for construction or operation.	Prior to start of construction	NO	NO	This measure is required for the CRS Expansion and does not apply to either segment.
Hydrology and Water Resources	MM (SEIR) H-7b	Groundwater Monitoring and Reporting.	Pre-construction	NO	NO	This measure is required for the CRS Expansion and does not apply to either segment.
Hydrology and Water Resources	MM (SEIR) H-7c	Water Supply Plan for Use of Colorado River Water.	Pre-construction	NO	NO	This measure is required for the CRS Expansion and does not apply to either segment.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Land Use	MM L-1a	<p>Prepare Construction Notification Plan. Forty-five days prior to construction, SCE shall prepare and submit a Construction Notification Plan to the CPUC and the BLM for approval. The Plan shall identify the procedures to ensure that SCE will inform property and business owners of the location and duration of construction, identify approvals that are needed prior to posting or publication of construction notices, and include template copies of public notices and advertisements (i.e., formatted text). To ensure effective notification of construction activities, the plan shall address at a minimum the following components:</p> <p>Public notice mailer. Fifteen days prior to construction, a public notice mailer shall be prepared. The notice shall identify construction activities that would restrict, block, or require a detour to access existing residential properties, retail and commercial businesses, wilderness and Recreation facilities, and public facilities (e.g., schools and memorial parks). The notice shall state the type of construction activities that will be conducted, and the location and duration of construction. SCE shall mail the notice to all residents or property owners within 300 feet of the right-of-way and to specific public agencies with facilities that could be impacted by construction. If construction delays of more than seven days occur, an additional notice shall be prepared and distributed. Newspaper advertisements. Fifteen days prior to construction, newspaper advertisements shall be placed in local newspapers and bulletins. The advertisement shall state when and where construction will occur and provide information on the public liaison person and hotline identified below.</p> <p>Public venue notices. Thirty days prior to construction, notice of construction shall be posted at public venues such as trail crossings, rest stops, desert centers, resource management offices (e.g., Bureau of Land Management field offices, San Bernardino National Forest Ranger Station), and other public venues to inform residents and visitors to the purpose and schedule of construction activities. For public trail closures, SCE shall post information on the trail detour at applicable resource management offices and post the notice within two miles north and south of the detour. For Recreation facilities, the notice shall be posted along the access routes to known Recreational destinations that would be restricted, blocked, or detoured and shall provide information on alternative Recreation areas that may be used during the closure of these facilities.</p> <p>Public liaison person and toll-free information hotline. SCE 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 disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SCE 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.</p>	Pre-construction and during construction	YES	YES	This measure is addressed through the Project-wide Construction Notification Plan. 15 days prior to construction, a public notice will be mailed to property owners 300 feet from each yard. 30 days prior to construction a public venue notice will be posted at sites indicated in the plan.
Land Use	MM L-1c	Provide proof of resolution of land acquisition issues for crossing of Agua Caliente Band of Cahuilla Indians tribal lands. SCE shall negotiate in good faith to reach a mutually acceptable agreement with the allottee. If an agreement is reached, SCE shall consult and coordinate with the Planning Department of the Agua Caliente to provide the information and/or fees requested by the Planning Department regarding land use matters. If SCE and the allottee reach an agreement then SCE shall notify the Planning Department of the Agua Caliente, and if SCE and the Planning Department agree on the legal requirements, including appropriate waivers, SCE shall notify the BLM and the CPUC of the agreement; however if SCE and the Planning department are unable to reach an agreement, SCE shall notify the CPUC of the inability to reach agreement and the CPUC may hold a hearing within thirty days of notification. SCE reserves the right to institute eminent domain proceedings. SCE believes that a conditional use permit is not required.	Pre-construction	NO	NO	The Red Bluff to CRS segment is not located on Agua Caliente land, and therefore this measure does not apply.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Land Use	MM L-1e	<p>Coordinate construction schedule with public and community facilities. SCE shall coordinate with the public and community facilities and services listed below regarding the construction schedule and duration in order to minimize impacts to these land uses. The purpose of this measure is to work with sensitive land uses that would be impacted by construction and to identify construction times/periods that would have the least impact to peak use of these public and community facilities. This coordination could result in limiting or avoiding construction during school sessions, identifying hauling routes that do not conflict with school commute routes, or working with the memorial parks to address funeral procession routes and noise sensitivities. Thirty days prior to construction, SCE shall document its coordination efforts including contact persons, information provided, and comments received, and submit this documentation to the California Public Utilities Commission and the Bureau of Land Management.</p> <ul style="list-style-type: none"> Schools near the project route: Beaumont Middle School and High School, Calvary Christian School, Chavez Elementary School, Terrace View Elementary School, public elementary school on East Canyon Vista Drive. San Geronio Memorial Park Desert Lawn Memorial Park Banning Municipal Airport Grandview Baptist Church 	Pre-construction	NO	NO	None of the facilities listed in the mitigation measure are the transmission line or OPGW replacement; therefore, this measure does not apply.
Land Use	APM L-2	Although the Holder (SCE) may restore and maintain existing access roads, they cannot be either widened or upgraded without approval of the Authorized Officer. (BLM B 1.1)	Pre-construction and during construction	YES	YES	Measure will be implemented.
Land Use	APM L-8	Link 14 crosses an open pit gravel operation. Potential impacts would be mitigated during construction by coordinating with the owner/operator to avoid critical mining periods and high volume earth-moving days. Operational mitigation would include spanning the mine. (SCE)	Pre-construction and during construction	NO	NO	There are no pit operations in the vicinity of the CRS-Red Bluff transmission line or OPGW replacement; therefore, this measure does not apply.
Noise	MM N-1a	<p>Implement best management practices for construction noise. SCE shall employ the following noise-suppression techniques to minimize the impact of temporary construction noise and avoid possible violations of local rules, standards, and ordinances:</p> <ul style="list-style-type: none"> Construction noise shall be confined to daytime, weekday hours (e.g., 7:00 a.m. to 6:00 p.m.) or an alternative schedule established by the local jurisdiction; Construction equipment shall use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer; Construction traffic shall be routed away from residences and schools, where feasible; Unnecessary construction vehicle use and idling time shall be minimized to the extent feasible. <p>The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. A "common sense" approach to vehicle use shall be applied; if a vehicle is not required for use immediately or continuously for construction activities, its engine should be shut off. (Note: certain equipment, such as large diesel-powered vehicles, require extended idling for warm-up and</p>	During construction	YES	YES	This measure will be implemented during construction.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Noise	APM N-1	The proposed construction would comply with local noise ordinances. There may be a need to work outside of the aforementioned local ordinances in order to take advantage of low electrical draw periods during the nighttime hours. SCE would comply with variance procedures requested by local authorities if required. (SCE)	Pre-construction and during construction	YES	YES	Project construction will comply with local noise ordinances or would obtain a variance . The measure will be implemented during construction.
Public Health & Safety	MM P-1a	Develop Hazardous Substance Control and Emergency Response Plan. A Hazardous Substance Control and Emergency Response Plan shall be prepared for the project, and a copy shall be kept on site (or in vehicles) during construction and maintenance of the project. SCE shall document compliance by submitting the plan to the CPUC or BLM or USFWS, as appropriate, for review and approval at least 60 days before the start of construction.	Pre-construction and during construction	YES	YES	This measure is addressed through the Project-wide Hazardous Substance Control and Emergency Response Plan.
Public Health & Safety	MM P-1b	Conduct environmental training and monitoring program. An environmental training program shall be established to communicate environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and proper Best Management Practice (BMP) implementation, to all field personnel prior to the start of construction. The training program shall emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of potentially hazardous substances) and shall include a review of all site-specific plans, including but not limited to, the project's Storm Water Pollution Prevention Plan and the Hazardous Substances Control and Emergency Response Plan. SCE shall document compliance by (a) submitting to the CPUC or BLM or USFWS, as appropriate, for review and approval an outline of the proposed Environmental Training and Monitoring Program, and (b) maintaining for monitor review a list of names of all construction personnel who have completed the training program. Best Management Practices, as identified in the project Storm Water Pollution Prevention Plan and the Hazardous Substances Control and Emergency Response Plan, shall be implemented during the construction of the project to minimize the risk of an accidental release and provide the necessary information for emergency response.	Pre-construction and during construction	YES	YES	A WEAP was prepared to address this measure and will presented to construction personnel prior to construction.
Public Health & Safety	MM P-1c	Ensure proper disposal of construction waste. All non-hazardous construction and demolition waste, including trash and litter, garbage, and other solid waste shall be disposed of properly. Petroleum products, and other potentially hazardous materials, shall be removed to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials.	During construction	YES	YES	This measure will be implemented during construction. Hazardous waste manifests, if obtained, will be kept onsite.
Public Health & Safety	MM P-1d	Maintain emergency spill supplies and equipment. Hazardous material spill kits shall be maintained at all construction sites for small spills. This shall include oil-absorbent material, tarps, and storage drums to be used to contain and control any minor releases. Emergency spill supplies and equipment shall be kept adjacent to all work areas and staging areas, and shall be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials shall be provided in the project's Hazardous Substances Control and Emergency Response Plan.	During construction	YES	YES	This measure will be implemented during construction.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Public Health & Safety	MM P-2a	Identify pesticide/herbicide contamination. Soil samples shall be collected in construction areas where the land has historically or is currently being farmed to identify the possibility of and to delineate the extent of pesticide and/or herbicide contamination. Excavated materials containing elevated levels of pesticide or herbicide will require special handling and disposal procedures. Standard dust suppression procedures (as defined in Mitigation Measure AQ-1a shall be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. Regulatory agencies for the states of Arizona or California (as appropriate) and the appropriate county shall be contacted to provide oversight regarding the handling, treatment, and/or disposal options.	Pre-construction and during construction	YES	YES	This measure is addressed in the Hazardous Substance Control and Emergency Response Plan. Soil sampling occurred along the transmission line contamination is not anticipated along the transmission line.
Public Health & Safety	MM P-3a	Observe exposed soil for evidence of contamination. During grading or excavation work, the construction contractor shall observe the exposed soil for visual evidence of contamination. If visual contamination indicators are observed during construction, the contractor shall stop work until the material is properly characterized and appropriate measures are taken to protect human health and the environment. The contractor shall comply with all local, State, and federal requirements for sampling and testing, and subsequent removal, transport, and disposal of hazardous materials. Additionally, in the event that evidence of contamination is observed, the contractor shall document the exact location of the contamination and shall immediately notify the CPUC or BLM, describing proposed actions. A weekly report listing encounters with contaminated soils and describing actions taken shall be submitted to the CPUC or BLM.	During construction	YES	YES	This measure will be implemented during construction.
Public Health & Safety	MM P-4a	Prepare Spill Prevention, Countermeasure, and Control Plans. To minimize, avoid, and/or clean up unforeseen spill of hazardous materials during operation of the proposed facilities, SCE shall update or prepare, if necessary, the Spill Prevention, Countermeasure, and Control plan for each substation, series capacitors, and the switchyard. SCE shall document compliance by providing a copy of the Spill Prevention, Control, and Countermeasures plans to the CPUC or BLM or USFWS, as appropriate, for review and approval at least 60 days before the start of operation.	During construction	YES	YES	This measure will be implemented during construction.
Public Health & Safety	MM PS-1a	Limit the conductor surface electric gradient. As part of the design and construction process for the Proposed Project, the Applicant shall limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide.	Pre-construction	YES	NO	This measure will be implemented during construction.
Public Health & Safety	MM PS-1b	Document and Resolve Electronic Interference Complaints. After energizing the transmission line, SCE shall respond to and document all radio/television/equipment interference complaints received and the responsive action taken. These records shall be made available to the CPUC for review upon request. All unresolved disputes shall be referred by SCE to the CPUC for resolution.	Post-construction	YES	NO	This measure will be implemented during operation.
Public Health & Safety	MM PS-2a	Implement Grounding Measures. As part of the siting and construction process for the Proposed Project, SCE shall identify objects (such as fences, metal buildings, and pipelines) within and near the right-of-way that have the potential for induced voltages and shall implement electrical grounding of metallic objects in accordance with SCE's standards. The identification of objects shall document the threshold electric field strength and metallic object size at which grounding becomes necessary.	Post-Construction	YES	NO	This measure will be implemented during operation.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Transportation & Traffic	MM T-7a	Repair roadways damaged by construction activities. If roadways, sidewalks, medians, curbs, shoulders, or other such features are damaged by the project's construction activities, as determined by the CPUC Environmental Monitor or the affected public agency, SCE shall coordinate repairs with the affected public agencies and ensure that any such damage is repaired to the pre-construction condition within 60 days from the end of all construction within each affected county.	During and post-construction	YES	YES	This measure will be implemented during or post construction if required.
Visual	MM V-1a	Reduce visibility of construction activities and equipment. Substation construction sites and all staging and material and equipment storage areas, including storage sites for excavated materials shall be appropriately located away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, construction sites and staging and storage areas shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Additionally, avoid construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use. This measure encompasses BLM permit requirements BLM B-7.1 and B-7.2. SCE shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.	Pre-construction and during construction	YES	YES	This measure is addressed through the Project-wide Construction Screening Plan.
Visual	MM V-1b	Reduce construction night lighting impacts. SCE shall design and install all lighting at construction and storage yards and staging areas 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. SCE shall submit a Construction Lighting Mitigation Plan to the BLM and CPUC for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SCE shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the BLM and CPUC. The Plan shall include but is not necessarily limited to the following: <ul style="list-style-type: none"> 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 is shielded to prevent light trespass outside the project boundary All lighting shall be of minimum necessary brightness consistent with worker safety High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied 	Pre-construction and during construction	YES	YES	This measure is addressed through the Project-wide Construction Lighting Plan.
Visual	MM V-2a	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. Contour grading should be used where possible to better blend graded surfaces with existing terrain. SCE shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.	Pre-construction and during construction	YES	NO	This measure is addressed through the Biological Habitat Restoration and Compensation Plan.
Visual	MM V-2b	Reduce visual contrast from unnatural vegetation lines. In those areas where views of land scars are unavoidable, the boundaries of disturbed areas should 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 on-going operation, maintenance, or access shall be returned to pre-construction conditions. This measure partially encompasses BLM permit requirement BLM B-7.9. SCE shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction.	Pre-construction and during construction	YES	NO	This measure is addressed through the Biological Habitat Restoration and Compensation Plan.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Visual	MM V-2c	Reduce color contrast of land scars. In those areas where views of land scars from sensitive public viewing locations are unavoidable, disturbed soils shall be treated with Eonite or similar treatments to reduce the visual contrast created by the lighter-colored disturbed soils with the darker vegetated surroundings. SCE will consult with the Authorized Officer on a site-by-site basis for the use of Eonite. This measure partially encompasses BLM permit requirement BLM B-6.4	Pre-construction and during construction	YES	NO	This measure is addressed through the Biological Habitat Restoration and Compensation Plan.
Visual	MM V-3a	<p>Reduce visual contrast of towers and conductors. The following design measures are to be applied to all new structures and conductors in order to reduce the degree of visual contrast caused by the new facilities:</p> <ul style="list-style-type: none"> • all new and replacement structures are to as closely as possible match the design of the existing structures with which they will be seen • all new and replacement structures are to be paired as closely as possible with the existing structure(s) in the corridor in order to avoid or reduce the number of off-setting (from existing structures) tower placements • all new and replacement structures are to match the heights of the existing DPV1 structures to the extent possible as dictated by variation in terrain • all new and reconducted spans are to match existing conductor spans as closely as possible in order to avoid or reduce the occurrence of unnecessary visual complexity associated with asynchronous conductor spans, particularly at sensitive crossings such as Salome Highway, I-10, U.S. 95, Colorado River, SR 78, Dillon Road, SR 62, Whitewater Canyon Road, and San Timoteo Canyon Road • all new conductors are to be non-specular in design in order to reduce conductor visibility and visual contrast • no new access roads are to be constructed downhill from existing or proposed towers to reduce the potential for skylining. SCE shall provide to the CPUC and BLM a Project Design Plan demonstrating implementation of this measure at least 90 days prior to the start of construction, and shall not commence construction until the Project Design Plan has been approved CPUC and BLM. 	Pre-construction	YES	NO	This measure was implemented during of the project, and all steel was ordered to meet the mitigation requirements.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Visual	MM V-6a	<p>Reduce Visual Contrast Associated with Ancillary Facilities. SCE shall submit to BLM and CPUC a Surface Treatment Plan describing the application of colors and textures to all facility structures, buildings, walls, fences, and components comprising all ancillary facilities including substations/switchyards, series capacitor banks, and optical repeater stations. 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 BLM and CPUC for approval at least 90 days prior to (a) ordering the first structures that are to be color treated during manufacture, or (b) construction of any of the ancillary facility component, whichever comes first. If the BLM or CPUC notifies SCE that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SCE shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include:</p> <p>specification, and 11"x17" color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture</p> <p>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)</p> <p>a detailed schedule for completion of the treatment</p> <p>a procedure to ensure proper treatment maintenance for the life of the project.</p> <p>SCE 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 SCE receives notification of approval of the Treatment Plan by the BLM and CPUC. Within 30 days following the start of commercial operation, SCE shall notify the BLM and CPUC that all buildings and structures are ready for inspection.</p>	Pre-construction	YES	YES	A project wide Surface Treatment Plan was prepared for the Substations and does not apply to the transmission line.
Visual	MM V-6c	<p>Reduce night lighting impacts. SCE 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.</p> <p>SCE shall submit a Lighting Mitigation Plan to the BLM and CPUC for review and approval at least 90 days prior to ordering any permanent exterior lighting fixtures or components. SCE shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the BLM and CPUC. The Plan shall include but is not necessarily limited to the following:</p> <ul style="list-style-type: none"> 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 is shielded to prevent light trespass outside the project boundary all lighting shall be of minimum necessary brightness consistent with worker safety high illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied. 	Pre-construction and during construction	YES	YES	A project wide Permanent Lighting Plan was prepared for the substations and does not apply to the transmission line.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Visual	MM V-40a	<p>Reduce visual contrast of towers and conductors. The following design measures are to be applied to all new structures and conductors in order to reduce the degree of visual contrast caused by the new facilities: (a) all new structures are to as closely as possible match the design of the existing structures with which they will be seen; (b) all new structures are to be paired as closely as possible with the existing structure(s) in the corridor in order to avoid or reduce the number of off-setting (from existing structures) tower placements; (c) all new structures are to match the heights of the existing D-V1 structures to the extent possible as dictated by variation in terrain; (d) all new spans are to match existing conductor spans as closely as possible in order to avoid or reduce the occurrence of unnecessary visual complexity associated with asynchronous conductor spans, particularly at sensitive crossings such as SR 62, I-10, SR 111, SR 243, SR 79, Gilman Springs Road, Ramona Expressway, Menifee Road, and SR 74; (e) all new conductors are to be non-specular in design in order to reduce conductor visibility and visual contrast, and (f) no new access roads are to be constructed downhill from existing or proposed towers to reduce the potential for skylining.</p> <p>SCE shall provide to the CPUC, BLM, and Forest Service a Project Design Plan demonstrating implementation of this measure at least 90 days prior to the start of construction, and shall not commence construction until the Project Design Plan has been approved by the CPUC, BLM, and Forest Service.</p>	Pre-construction and during construction	YES	NO	This measure was implemented during of the project, and all steel was ordered to meet the mitigation requirements.
Visual	MM V-40b	<p>Reduce visual contrast of towers and conductors on San Bernardino National Forest land. The following design measures are to be applied to all new structures and conductors on SBNF land based on SCE's consultation with SBNF staff prior to completion of final design. The details of these measures shall be developed:</p> <p>In all areas:</p> <ul style="list-style-type: none"> • Transmission lines should have a permanent coloring of dark gray. • All towers not back-dropped on mid-slope should have permanent coloring of cool mid-gray (battleship gray). <p>In mid-slope areas (as defined by SBNF):</p> <ul style="list-style-type: none"> • All towers and concrete bases on slopes which could serve as backdrops (mid-slope) should be painted olive drab. • Tower pads should be left uneven without leveling. • No construction roads shall be built. • Towers shall be constructed by air support. <p>At ridge crossing and mid-slope (as defined by SBNF):</p> <ul style="list-style-type: none"> • Towers should be constructed of lower profile to closer "hug" the top of the ridge to avoid tower silhouetting. • Graphic studies from dominant view sites should be used to best place towers where they would be best back-dropped from expected viewing points. • All towers and concrete bases on slopes which could serve as backdrops (mid-slope) should be painted olive drab. • Tower pads should be left uneven without leveling. • No construction roads shall be built. • Towers should be constructed by air support. 	Pre-construction	NO	NO	This measure does not apply because the CRS-Red Bluff transmission line and OPGW replacement are not on SBNF land.
Visual	MM V-40c	<p>Reduce visual contrast of towers and conductors near the Pacific Crest Trail.</p> <p>For towers located south of I-10 and outside of the SBNF, the following provisions apply:</p> <ul style="list-style-type: none"> • Where towers could be practicably back-dropped, utilize mitigation suggested for mid-slope and Ridge Crossing on SBNF lands (as defined in Mitigation Measure V-40b). • The PCT shall not be crossed with construction roads. • Locate towers so that the PCT is in the middle of the span (if this does not involve placement of extra or taller span towers to accomplish such action). 	Pre-construction and during construction	NO	NO	This measure does not apply because the CRS-Red Bluff transmission line and OPGW replacement do not traverse the Pacific Crest Trail.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Visual	APM V-1	Non-specular conductors will be used [to reduce glare and visual contrast]. (BLM B-6.1)4 [bracketed text added by SCE]	Pre-construction	YES	NO	This measure was implemented during of the project, and all conductor was ordered to meet the mitigation requirements.
Visual	APM V-2	For the proposed alignment, tower spacing will correspond to the spacing of the existing transmission line structures. Additionally, new tower heights will be adjusted such that the top elevations of each set of towers (new and existing) are horizontal with each other. This will coordinate perceptions of towers and conductors as one element. Site-specific conditions will determine when such mitigation is feasible. Other exceptions to these two measures are where towers will be sited to avoid sensitive features and/or to allow conductors to clearly span features. (BLM B-6.2) [PEA adds: "SCE will comply with the above mitigation measure to the extent possible. However, the ISO has specified that the capacity of the line be 2700 amps under normal conditions and 3600 amps under emergency conditions. This capacity rating is an increase from the 1988DPV2 capacity rating. This capacity rating necessitates that the heights of some of the proposed Devers-Harquahala towers be slightly taller than [adjacent towers], and in some locations tower spacing may not correspond to the adjacent DPV1 structures, to provide adequate ground clearance." (PEA, p. 6-31)	Pre-construction	YES	NO	This measure was implemented during project design as feasible.
Visual	APM V-3	At all highway and recreation routes-of-travel crossings, including the Colorado River, towers will be placed at the maximum feasible distance, and when feasible,[except in locations where matching existing tower spacing is deemed appropriate].(BLM B-6.3) [From "and where feasible," the BLM text reads "...at right angles, from the crossing." SCE has replaced this phrase in the bracketed text.]	Pre-construction	YES	NO	This measure was implemented during project design as feasible.
Visual	APM V-4	Improvements to existing access and new access will be accomplished according to Mitigation Measures 1 and 2 as identified under soils. (BLM B-6.4)	Pre-construction	YES	YES	This will be implemented during construction.
Visual	APM V-5	Standard tower spacing would be modified to correspond with spacing of existing transmission line towers where feasible and within limits of standard tower design to reduce visual contrast. (BLM B-6.8a)	Pre-construction	YES	NO	This measure was implemented during project design as feasible.
Visual	APM V-6	Towers would be placed so as to avoid features and/or to allow conductors to clearly span the feature (within limits of standard tower design) to minimize the amount of sensitive feature disturbed and/or reduce visual contrast (e.g., avoiding skyline situations through placement of tower to one side of a ridge or adjusting tower location to avoid highly visible locations and utilize screening of nearby landforms). (BLM B-6.8b)	Pre-construction	YES	NO	This measure was implemented during project design as feasible.
Visual	APM V-7	The proposed steel lattice towers would be constructed using a dulled galvanized steel finish, which would result in visual contrast reduction. (SCE)	Pre-construction	YES	NO	Steel lattice towers will be constructed using a dull galvanized steel finish.
Visual	APM V-8	Non-specular conductors would be used to reduce glare and resulting visual contrast.	Pre-construction	YES	NO	Non-specular conductors will be used.
Visual	APM V-9	Towers would be located adjacent to existing structures where feasible. Exceptions are at locations where the tower heights and/or spans would be modified based on terrain features allowing for adequate conductor clearance to ground and other facilities within the right-of-way. (SCE)	Pre-construction	YES	NO	This measure was implemented during project design as feasible.
Visual	APM V-10	At all highway and recreation routes-of-travel crossings, including the I-10 crossing, towers would be placed at the maximum feasible distance, except in locations where matching existing tower spacing is deemed appropriate, and when feasible, at 90 degree angles from the crossing. (SCE)	Pre-construction	YES	NO	This measure was implemented during project design as feasible.

Resource Area	MM/APM	Measure	Timing	Red Bluff to CRS	OPGW	Comments
Wilderness and Recreation	MM WR-1a	<p>Coordinate construction schedule and activities with the authorized officer for the recreation area. No less than 40 days prior to construction, SCE shall coordinate construction activities and the project construction schedule with the authorized officer of the recreation areas listed below. SCE shall schedule construction activities to avoid heavy recreational use periods, including major holidays, in coordination with, and at the discretion of the authorized officer. SCE shall locate construction equipment to avoid temporary preclusion of recreation areas per the recommendations of the authorized officer. SCE shall also prepare a public notice of construction activities consistent with Mitigation Measure L-1a (Prepare Construction Notification Plan). SCE shall document its coordination efforts with the authorized officer, and provide this documentation to the California Public Utilities Commission and the Bureau of Land Management 30 days prior to construction.</p> <p>San Jacinto Wilderness Area Santa Rosa and San Jacinto Mountains National Monument San Bernardino National Forest Pacific Crest National Scenic Trail Chuckwalla Valley Dune Thicket Area of Critical Environmental Concern Alligator Rock Area of Critical Environmental Concern Coachella Valley Preserve and Coachella Valley Fringe-Toed Lizard Area of Critical Environmental Concern Potrero Area of Critical Environmental Concern BLM off-highway vehicle trails in Shavers Valley Indio Hills Palms State Park</p>	Pre-construction and during construction	YES	NO	This measure is addressed through the Project-wide Construction Notification Plan.
Wilderness and Recreation	MM WR-1b	<p>Provide a temporary detour for Pacific Crest National Scenic Trail users. No less than 40 days prior to construction, SCE shall coordinate with the USDA Forest Service to establish a temporary detour of the trail to avoid hazardous construction areas. SCE shall prepare a public notice of the temporary trail closure and information on the trail detour consistent with Mitigation Measure L-1a (Prepare Construction Notification). SCE shall document its coordination efforts with the USDA Forest Service and submit this documentation to the CPUC/BLM 30 days prior to construction.</p>	Pre-construction	NO	NO	Neither the CRS-Red Bluff transmission line nor the OPGW replacement is located in proximity to the PCT, therefore this measure does not apply.
Wilderness and Recreation	MM WR-3a	<p>Coordinate tower and road locations with the authorized officer for the recreation area. Where the proposed route crosses the recreation areas listed below, SCE shall coordinate with the authorized officer to determine specific tower site and spur road locations in order to minimize impacts to recreational resources. This coordination shall occur no less than 30 days prior to the start of construction. SCE shall document its coordination with the authorized officer and shall submit this documentation to the CPUC and BLM prior to initiating project construction.</p> <p>Santa Rosa and San Jacinto Mountains National Monument San Bernardino National Forest Pacific Crest National Scenic Trail San Jacinto Wilderness Area Chuckwalla Valley Dune Thicket ACEC Alligator Rock ACEC Coachella Valley Preserve and Coachella Valley Fringe-Toed Lizard ACEC</p>	Pre-construction	YES	NO	This measure is addressed through the Project-wide Construction Notification Plan.

Appendix D

Permit Table

ATTACHMENT D - Permit Table
Permits Required for the CRS - Red Bluff Transmission Line NTPR

Agency	Permit Name	Comments
Local Level Permits		
Riverside County	Aerial Encroachments	Between Towers: 2546X and 2547 2549 and 2550 2574 and 2575 2608 and 2609 2634 and 2635
Regional and State Level Permits		
Regional Water Quality Control Board, Region 7 (Colorado River)	Storm Water Construction General Permit 2009-0009-DWD (SWPPP) (R7)	
State Water Resources Control Board	Clean Water Act Section 401 Permit – Water Quality Certificate	Towers 2534, 2539X, 2525ALTX, 2542X, 2546X, 2549, 2557, 2559, 2561, 2562, 2577, 2601, 2602, 2603, 2605, 2607, 2609, 2616, 2622X
California Department of Fish and Game	1602 Streambed Alteration Agreement	Towers 2534, 2539X, 2525ALTX, 2542X, 2546X, 2549, 2557, 2559, 2561, 2562, 2577, 2601, 2602, 2603, 2605, 2607, 2609, 2616, 2622X
Federal Permits		
U.S. Army Corps of Engineers	Clean Water Act Section 404 Permit – fill to waters of the U.S.	Towers 2534, 2539X, 2525ALTX, 2542X, 2546X, 2549, 2557, 2559, 2561, 2562, 2577, 2601, 2602, 2603, 2605, 2607, 2609, 2616, 2622X

Appendix E

Biological Resource Impacts Summary Tables

ATTACHMENT E: TABLE E-1

Summary of Impacts to Vegetation Communities

Draft Notice to Proceed Request for Red Bluff to Colorado River Substation Transmission Line

Vegetation Community	Guard Structures	Spur Roads	Temporary Work Limits	Tower Footings	Fiber Optic Wire Sites	DPV2 Wire Setups	Red Bluff Wire Setups	Total		Grand Total
	Temp	Perm	Temp	Perm	Temp	Temp	Temp	Perm	Temp	
Big Galleta Shrub-Steppe			0.15	0.00				0.00	0.15	0.15
Blue Palo Verde-Ironwood-Smoke Tree Woodland						0.00		0.00	0.00	0.00
Blue Palo Verde-Ironwood Woodland	0.14	0.02	0.36	0.00				0.02	0.49	0.51
Blue Palo Verde Woodland			0.86	0.00				0.00	0.86	0.86
Creosote Bush-Brittlebush-White Bursage	0.03							0.00	0.03	0.03
Creosote Bush-Cheesebush Scrub		0.10	0.63	0.00		0.56		0.10	1.19	1.29
Creosote Bush-White Bursage Scrub	0.28	0.12	7.55	0.00	0.38	1.32		0.12	9.52	9.64
Creosote Bush Scrub	0.00	5.53	38.50	0.04	0.54	19.54		5.57	58.58	64.15
Creosote Bush Scrub-Big Galleta	0.14	0.07	0.33	0.00		0.47		0.07	0.95	1.02
Creosote Bush Wash Scrub			0.02			0.10		0.00	0.12	0.12
Developed					0.01			0.00	0.01	0.01
Disturbed Land	0.12	0.45	13.36	0.00	0.01	1.35	0.08	0.46	14.93	15.39
Ironwood-Indigo Bush			0.03					0.00	0.03	0.03
Ironwood Woodland	0.69	0.20	19.96	0.01	0.41	3.18	0.06	0.21	24.31	24.52
Non-vegetated Desert			0.77	0.00		0.04		0.00	0.81	0.81
Open Pavement	0.06	0.10	4.02	0.00		0.18	0.89	0.10	5.15	5.25
Smoke Tree Woodland			0.06			0.00		0.00	0.06	0.06
Stabilized and Partially Stabilized Desert Dune		0.23	7.86	0.01	0.15	10.83		0.23	18.84	19.08
White Bursage Scrub		0.06	0.39	0.00				0.06	0.39	0.46
	1.47	6.86	94.84	0.07	1.50	37.59	1.03	6.94	136.43	143.36

Note:

Units are in acres. Total acreage may vary due to rounding.

Calculation of 0.00 have less than 0.01 acre of disturbance

ATTACHMENT E : TABLE E-2

Summary of Special-status Plants

Draft Notice to Proceed Request for Red Bluff to Colorado River Substation Transmission Line

Taxon	Status ^a Fed/State/CNPS	Flowering Period	Habitat
<i>Ammoselinum giganteum</i> (Desert sand-parsley)	--/--/2.3	May-Apr	Sonoran desert scrub, 1,312 feet
<i>Astragalus tricarinatus</i> (Triple-ribbed milkvetch)	E/--/1B.2	Feb-May	Sonoran desert scrub and Joshua tree woodland, 1,476 to 3,904 feet
<i>Astragalus insularis</i> var. <i>harwoodii</i> (Harwood's milkvetch)	--/--/2.2	Jan-May	Desert dunes, Mojavean desert scrub, 0 to 2,460 feet
<i>Astragalus lentiginosus</i> var. <i>coachellae</i> (Coachella Valley milkvetch)	E/--/1B.2	Feb-May	Sonoran desert scrub and desert dunes, 131 to 2,149 feet
<i>Ayenia compacta</i> (California ayenia)	--/--/2.3	Mar-Apr	Mojavean desert scrub and Sonoran desert scrub, 492 to 3,593 feet
<i>Chamaesyce arizonica</i> (Arizona spurge)	--/--/2.3	Mar-Apr	Sonoran desert scrub, 164 to 984 feet
<i>Chamaesyce abramsiana</i> (Abram's spurge)	--/--/2.2	Sep-Nov	Mojave and Sonoran desert scrub, -16 to 3,002 feet
<i>Chamaesyce platysperma</i> (flat-seeded spurge/sandmat)	--/--/1B.2	Feb-Sep	Sonoran desert scrub and desert dunes, 197 to 3,117 feet
<i>Cryptantha costata</i> (ribbed cryptantha)	--/--/4.3	Feb-May	Desert dunes, Mojavean desert scrub and Sonoran desert scrub in sandy soil.
<i>Ditaxis claryana</i> (Glandular ditaxis)	--/--/2.2	Oct-Mar	Mojave and Sonoran desert scrub, 0 to 1,526 feet
<i>Ferocactus cylindraceus</i> var. <i>cylindraceus</i> (California barrel cactus)	--/--/ CDNPA	Apr-June	Mojavean desert scrub; Sonoran desert scrub
<i>Gilia maculata</i> (= <i>Linanthus maculatus</i>) (Little San Bernardino Mountains gilia)	--/--/1B.2	Mar-May	Desert dunes, Mojavean desert scrub, Sonoran desert scrub and Joshua tree woodland, 640 to 6,808 feet
<i>Matelea parvifolia</i> (Spearleaf)	--/--/2.3	Mar-May	Mojavean desert scrub and Sonoran desert scrub, 1,444 to 3,593 feet
<i>Nemacaulis denudate</i> var. <i>gracilis</i> (Slender woolly-heads)	--/--/2.2	(Mar) Apr-May	Coastal dunes, desert dunes, Sonoran desert scrub, -164 to 1,312 feet

ATTACHMENT E : TABLE E-2

Summary of Special-status Plants

Draft Notice to Proceed Request for Red Bluff to Colorado River Substation Transmission Line

Taxon	Status ^a Fed/State/CNPS	Flowering Period	Habitat
<i>Salvia greatae</i> (Orocopia sage)	--/--/1B.3	Mar-Apr	Mojavean desert scrub and Sonoran desert scrub, -131 to 2,707 feet
<i>Senna covesii</i> (Coves's cassia)	--/--/2.2	Mar-Jun	Sonoran desert scrub, 656 to 3,510 feet
<i>Stemodia durantifolia</i> (Purple stemodia)	--/--/2.1	Jan-Dec	Sonoran desert scrub, 591 to 984 feet
<i>Xylorhiza cognata</i> (Mecca-aster)	--/--/1B.2	Jan-Jun	Sonoran desert scrub, 66 to 1,312 feet

Sources:

California Department of Fish and Game, 2010; California Native Plant Society, 2010; California Natural Diversity Database, 2010; United States Fish and Wildlife Service, 2010.

^aConservation status abbreviations:

United States Fish and Wildlife Service designations:

- E Endangered: Any species in danger of extinction throughout all or a significant portion of its range
- T Threatened: Any species likely to become endangered within the foreseeable future

California Department of Fish and Game designations:

- E Endangered: Any species in danger of extinction throughout all or a significant portion of its range
- T Threatened: Any species likely to become endangered within the foreseeable future

California Native Plant Society designations (excluding CNPS List 4 designations)

- 1B Plants rare, threatened or endangered in California and elsewhere
- 2 Plants rare, threatened or endangered in California, but more common elsewhere
- 3 Plants for which more information is needed – a review list

California Native Plant Society threat categories:

- .1 Seriously endangered in California
- .2 Fairly endangered in California
- .3 Not very endangered in California

California Desert Native Plants Act:

- CDNPA Protected under the California Desert Native Plants Act.

ATTACHMENT E: TABLE E-3

Summary of Impacts to Special-status Wildlife

Draft Notice to Proceed Request for Red Bluff to Colorado River Substation Transmission Line

Special-status Wildlife	Habitat Type	Spur Roads	Temporary Work Limits	Tower Footings	Fiber Optic Wire Sites	DPV2 Wire Setups	Guard Structures	Red Bluff Wire Setups	Total		Grand Total
		Perm	Temp	Perm	Temp	Temp	Temp	Temp	Perm	Temp	
DETO	Occupied	5.33	19.87	0.03	0.32	28.60			5.36	48.80	54.16
	Critical	1.08	60.11	0.03	1.15	7.63	1.34	0.95	1.12	71.19	72.30
DETO Total		6.41	79.98	0.07	1.48	36.23	1.34	0.95	6.48	119.98	126.46
MFTL	Occupied	1.87	12.74	0.02	0.42	17.04			1.89	30.20	32.09
	Potential		1.26	0.00					0.00	1.26	1.26
MFTL Total		1.87	14.01	0.02	0.42	17.04			1.89	31.46	33.35

Note:

Units are in acres. Total acreage may vary due to rounding.

DETO = desert tortoise

MFTL = Mojave fringe-toed lizard

ATTACHMENT E: TABLE E-4

Summary of Impacts to Jurisdictional Waters

Draft Notice to Proceed Request for Red Bluff to Colorado River Substation Transmission Line

	Spur Roads Perm	Tower Footings Perm	Work Limits Temp	Wire Setup Temp
USACE, RWQCB, CDFG Jurisdiction	0.00088	0.00015	0.66249	0.62126
CDFG Jurisdiction only				0.01870
Total	0.00088	0.00015	0.66249	0.63996

Note:

Units are in acres. Total acreage may vary due to rounding.

Appendix F

Devers-Palo Verde No. 2 Transmission Line Project, NTPR Colorado River Substation to Red Bluff, Cultural and Paleontological Resources Assessment

**Devers-Palo Verde No. 2 Transmission Line Project,
NTPR Request Red Bluff to Colorado River Substation
Cultural and Paleontological Resources Assessment**

This Notice to Proceed Request (NTPR) describes two scope of work within the Devers-Palo Verde No.2 (DPV2) 500 kilovolt (kV) Project. First scope is the transmission line from the new Red Bluff Substation (RBS) to the new Colorado River Substation (CRS). The second scope is the replacement of 5 miles existing overhead ground wire (OHGW) with new optical ground wire (OPGW) on the existing DPV1 T/L.

The scope of RBS to CRS T/L, starts from tower construction number RB2-5E, located south of RBS, to the tower construction number 2648, located to the north of CRS. This section of the T/L is located within the existing ROW. The scope consists of construction of stub roads, foundations, steel assembly, erection of ninety-one (91) Lattice Steel Towers (LSTs), and the installation of associated hardware assemblies and interconnecting wires.

The scope for the existing DPV1 OHGW replacement of OPGW is to replace the existing OHGW with one 96 fiber OPGW and install all associated hardware for approximately 5 miles from construction tower No. CR1-5E, to existing tower M123-T1.

A cultural resources records search and survey was completed (Eckhardt et al. 2011a). Cultural resources within this portion of the project will be protected as outlined in the DPV2 Programmatic Agreement (PA) and Historic Properties Management Plan (HPMP). Protection of cultural resources within the Area of Potential Effect (APE) will consist of ESA fencing and/or flagging, and/or monitoring as outlined in the HPMP (See Table 1 and Appendix B).

A Paleontological Monitoring and Treatment Plan (PMTP) has been completed for the DPV2 Project and previously submitted to the CPUC. Red Bluff to CRS work areas are located in low sensitivity soils for paleontological resources (CH2M Hill 2011:Table 2). Methods for protection, monitoring and treatment of paleontological resources are outlined in the PMTP.

Per the Workers Environmental Awareness Program (WEAP) implemented for the DPV2, all construction workers must adhere to communication protocols in the event of unanticipated discoveries. If cultural or paleontological resources are encountered during ground disturbing activities, all work must halt at that location until the resources can be properly evaluated by a qualified archaeologist or paleontologist. Please contact SCE archaeologist Audry Williams at (626) 222-8458 in this instance. Further, if human remains are unearthed during excavation, State Health and Safety Code Section 7050.5 states "there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered... [has made the appropriate assessment, and] ...recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code."

References

CH2M Hill. 2011. Devers-Palo Verde No. 2 Transmission Line Project Paleontological Monitoring and Treatment Plan.

Eckhardt, William T, Matthew M. DeCarlo, and Scott C. Justus. 2011a. Summary Class III Cultural Resources Inventory Proposed Southern California Edison Devers-Palo Verde 2 Transmission Line Project, Riverside County, California.

Eckhardt, William T, Matthew M. DeCarlo, Audry Williams, and Doug Mengers. 2011b. Historic Property Treatment Plan, for the Devers-Palo Verde No. 2 Transmission Line Project, Riverside County, California.