Southern California Edison Company

Documentation for Compliance
with the CPUC's
Decisions Granting a Certificate of
Public Convenience and Necessity (CPCN)

Notice to Proceed Request for
Exclusionary Fencing
NTPR # 20110803-1

Devers-Palo Verde No. 2 Transmission Line Project (DPV2)

August 2011

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1.0 INTRODUCTON

As required by the project's Federal Endangered Species Act Section 7 Biological Opinion (BO) conservation measure #27, exclusionary fencing shall be installed during the Coachella Valley fringe-toed (CVFTL) and flat-tailed horned lizard (FTHL) active season, if construction will occur November through March within modeled habitat areas. This Notice to Proceed Request (NTPR) describes the installation of CVFTL and FTHL exclusionary fencing at 41 work areas along the Colorado River Substation to Devers Substation transmission line (Colorado River-to-Devers) segment of the Devers-Palo Verde No. 2 500kV Transmission Line (DPV2) Project. The 41 work areas are located within areas identified by the Coachella Valley Association of Governments (CVAG) for the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) as modeled habitat for CVFTL and FTHL. There are additional project areas within modeled habitat where fencing is not proposed as project construction is not anticipated at these sites during the inactive season.

This Notice to Proceed (NTP) will be applicable for all activities associated with the installation of exclusionary fencing at 41 tower locations work areas (encompassing the tower pad temporary construction area) and their associated stub roads along the Colorado River-to-Devers transmission line segment.

The DPV2 Project Final Environmental Impact Report and Final Environmental Impact Statement (FEIR/FEIS), supplemented in the Project Refinements No. 1 and Project Refinements No. 2 (collectively, the Refinements Documents) submitted to the CPUC on June 24, 2010 and October 8, 2010, respectively describes the DPV2 Project components and construction activities which will occur along the transmission line. Biological resources associated with each work area are described and illustrated in the Exclusionary Fence Biological Review (Attachment A, sent under separate cover) and the Exclusionary Fence Cultural Resources Report (Attachment B, sent under separate cover).

All applicable FEIR/FEIS Applicant Proposed Measures (APMs), Mitigation Measures (MMs), and the California Department of Fish and Game Code Section 2080.1 Consistency Determination measures and BO conservation measures have been identified, and will be

implemented or completed prior to commencement of the construction associated with this NTPR (see Table 1). No required local permits are anticipated for the associated scope of work described herein. Monitoring and reporting on implementation of APMs, MMs, and BO conservation measures will be conducted in accordance with the DPV2 Mitigation Monitoring Compliance and Reporting Plan (MMCRP) issued by the CPUC. Additionally, required preconstruction surveys for biological resources will be conducted prior to the start of fence installation.

2.0 SITE LOCATION AND CONDITIONS

The DPV2 Project spans approximately 153 miles from the proposed Colorado River Substation approximately 10 miles southwest of Blythe, California, through Devers Substation near Palm Springs, California, to Valley Substation in Menifee, California. The 41 work areas identified below are along the Colorado River-Devers transmission line segment of the project, surrounding towers and spur roads identified within CVFTL and FTHL modeled habitat.

Activities associated with the installation of exclusionary fencing would occur within SCE's right-of-way (ROW) parallel to the existing 500kV Devers-Palo Verde No. 1 (DPV1) Transmission Line. Areas within the ROW where the associated activities would occur traverse multiple jurisdictions including private land within unincorporated Riverside County, state and federal land, as shown in Table 2 and the attached figures below.

Table 2 Construction Site and Ownership						
#	Site #	Ownership		#	Site #	Ownership
1	2012ALAD	Private/Riv Co.		23	2133	State/CDFG
2	2013	Private/Riv Co.		24	2134	State/CDFG
3	2015	Private/Riv Co.		25	2135	Private/Riv Co.
4	2016	Private/Riv Co.		26	2136	Private/Riv Co.
5	2017	Private/Riv Co.		27	2137	Private/Riv Co.
6	2018	Private/Riv Co.		28	2200	Private/Riv Co.
7	2019	Private/Riv Co.		29	2201	Federal/BLM
8	2020	Private/Riv Co.		30	2202	Federal/BLM
9	2100	Private/Riv Co.		31	2203	Federal/BLM
10	2101	Private/Riv Co.		32	2204	Federal/USFWS
11	2102	Private/Riv Co.		33	2205	Federal/USFWS
12	2110	Private/Riv Co.		34	2206	Federal/USFWS
13	2113	Private/Riv Co.		35	2207	Federal/USFWS
14	2122	Private/Riv Co.		36	2208	Federal/USFWS
15	2125	Private/Riv Co.		37	2211	Private/Riv Co.
16	2126	Private/Riv Co.		38	2240	Private/Riv Co.
17	2127	Private/Riv Co.		39	2241	Private/Riv Co.
18	2128	Private/Riv Co.		40	2242	Private/Riv Co.
19	2129	Private/Riv Co.		41	2243	Private/Riv Co.
20	2130	Private/Riv Co.	CDFG = California Department of Fish and Game Riv Co. = Riverside County BLM = Bureau of Land Management USFWS = United States Fish and Wildlife Service			
21	2131	Private/Riv Co.				
22	2132	State/CDFG				

3.0 PROJECT COMPONENTS

This section describes the Project components, including site facilities, operations, and site work associated with the installation of the exclusionary fencing. Construction equipment operating hours for installation of the fencing are planned to be from approximately 7:00 a.m. to 6:00 p.m. weekdays or in accordance with an alternative schedule established by the local jurisdiction. 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 Project Elements/Construction Activities

Following is a list of elements and activities that will possibly be present or active throughout the construction of the exclusionary fencing and will not be located or conducted outside of identified disturbance areas:

Project Elements	Construction Activities
• Exclusionary fencing	• Trenching for placement of exclusionary fencing per attached plans.
• Construction equipment and vehicles	• Portable Equipment trailers and toilets
• Installation of best management practices (BMPs) in accordance with the project's Storm Water Pollution Prevention Plans (SWPPPs)	• Staking disturbance areas • Construction equipment and vehicles • Watering (use of water from an offsite water source with utilization of water trucks)

3.2 Site Work

Planned work, which will consist of trenching, placement of exclusionary fencing, backfill, and compaction, will be performed by a qualified subcontractor. Ingress and egress into the work area following installation of the fencing will be through "gate" locations at the existing access road-new stub road interface. These locations will not be trenched to bury the fencing 24" below grade however fencing material will be laid on grade and stabilized with sandbags when closed during non-construction times to prevent lizards from easily entering the exclusion area at grade level.

It is planned that the subcontractor will use a skid steer equipped with a trenching attachment to excavate the 24-inch deep trench required to embed the fencing. The fencing will be backfilled and compacted with a compactor and the skid steer. A water truck will be onsite for dust control during the fence installation process and to provide a source of water for compaction of the excavated spoils. A self-contained portable restroom will be placed and secured on the equipment trailer for onsite workers.

3.2.1 Site Preparation

Site work for the installation of exclusionary fencing will include excavating a 24 inch deep trench. The fencing will be installed 24-inches below grade and 24 inches above grade on the perimeter of the above listed locations. Installation of exclusionary fencing will not include clearing of vegetation of the entire defined disturbance areas but only within the required work area associated with trenching. Ground disturbance will be limited to the trenching required for fence installation and overland vehicle (trucks, trailers, compactor and skid steer) travel from existing access roads to the work areas. The sites will be stabilized according to the Stormwater Pollution Prevention Plan (SWPPP) requirements. Excavated spoils will be replaced in the trench and compacted prior to stopping work at the end of each day. Should spoils not be replaced in the trench at the end of the workday, SWPPP requirements for stockpiling will be implemented. Rock/cobble in the trenchline and immediate vicinity will be moved inward toward the center of the disturbance area to facilitate trenching and fencing installation. In areas where the spur roads will require grading (which will occur during construction of the transmission line) outside of the spur road location, the exclusionary fencing will encompass the future road and disturbance needed for grading.

Once the exclusionary fencing is installed, the work areas will be considered “active” and SCE will implement protective measures to ensure lizards are excluded. This would include periodic surveys to inspect and maintain the fence and having qualified biologists relocate any wildlife species found inside the exclusionary fence (active work areas) to a location outside the fenced areas.

3.2.2 Access Routes

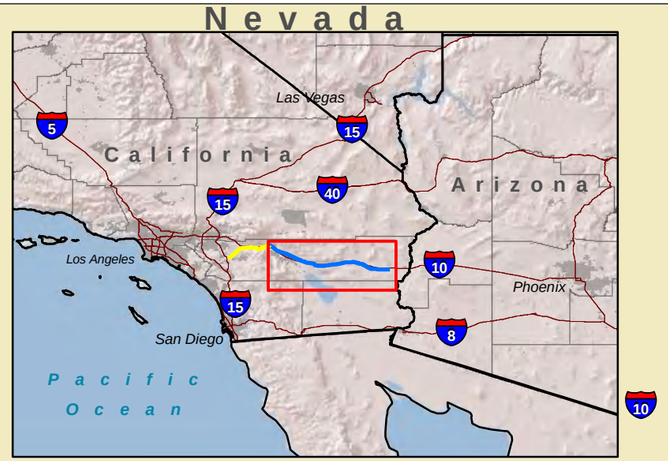
Installation of the exclusionary fencing will occur within the existing SCE ROW, with access along existing access roads. New roads and planned improvements to existing roads are not required for this activity. Spur roads, which are access points from the existing access roads to the tower locations, will also be fenced.

3.2.3 Water Source

A water truck will be onsite for dust control during the fence installation process and to provide a source of water for compaction of the excavated spoils. Prior to construction, the water source will be identified for review and approval.

3.3 Activity Schedule

Installation of the exclusionary fence is anticipated to commence on or around August 15, 2011, with an expected completion date of October 31, 2011. Fence installation will be conducted during the active season for CVFTL and FTHL, as required in the project's Biological Opinion and Consistency Determination.



Project Location Map

DEVERS-PALO VERDE NO 2
COLORADO RIVER SUBSTATION
TO DEVERS SUBSTATION

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CLD¦W9 MT EXCLUSIONARY FENCING
SHOWING
ENVIRONMENTALLY SENSITIVE AREAS (ESA'S)

MAP BOOK KEY

Engineering

- Proposed DPV2 500kV Tower Footprint
- Proposed Colorado River to Devers 500kV T/L Centerline
- Existing Devers-PaloVerde No. 1 500kV Tower Centerline Point
- Existing Devers-Palo Verde No. 1 500kV Centerline
- Proposed Spur Road
- Proposed Temporary Construction Area Work Limit
- Proposed Daylight Area
- DPV1 & 2 Combined Right-of-Way (Includes Devers-Hinds T/L)
- Existing Access Road
- Existing Access Road (New acquisition)

Other

- Coachella Valley Preserve

Environmentally Sensitive Areas

- Environmentally Sensitive Area (Polygon)
- Environmentally Sensitive Area (Line)

Seasonal Restrictions and Exclusionary Fencing

Coachella Valley Fringe-toed Lizard Seasonal Restriction Area:

Per BO Measure 27 Construction restricted Nov. through Mar.
Per BO Measure 27 and FEIR/FEIS Measure B-7d Install exclusionary fencing Apr. through Oct.

Flat-tailed Horned Lizard Seasonal Restriction Area:

Per BO Measure 27 Construction restricted Nov. through Mar.
Per BO Measure 27 Install exclusionary fencing Apr. through Oct.

The data contained herein is valid as of 7/28/2011 and is subject to final engineering

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1" = 200'
SCALE FOR ALL MAPS
Projection: NAD 83 UTM Zone 11N

DESERT HOT SPRINGS

DEVERS SUBSTATION

Joshua Tree National Park

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

PALM SPRINGS

CATHEDRAL CITY

10

Coachella Valley Preserve

RANCHO MIRAGE

PALM DESERT

INDIO

INDIAN WELLS

LA QUINTA

COACHELLA

COACHELLA

I:\MapBookGrids\MXDs\Devers_CRSY_MapBook_2400GridIndex.mxd

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Legend

- 1 — Map book sheets showing the exclusionary fencing locations
- Existing Substation
- City Boundary
- BLM
- BIA (Agua Caliente)
- Private
- Military
- Nature Conservancy
- National Park Service
- Coachella Valley Preserve

SCALE FOR ALL MAPS
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DEVERS-PALO VERDE NO 2
COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION

EXCLUSIONARY FENCING MAP BOOK GRID INDEX

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NOT TO SCALE

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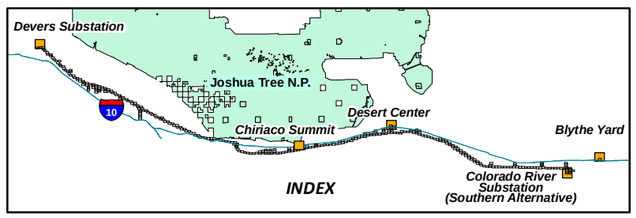

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Typical of Exclusionary Fencing Layout

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2011

M234-T3

LITTLE MORONGO RD

18TH AVE

Const No 2012ALAD

N

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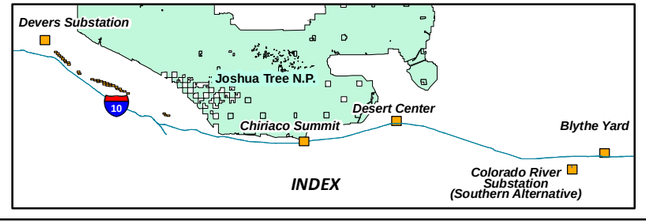
0 50 100 200 300 400 Feet

Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET
01 of 32

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

M234-T2

LITTLE MORONGO RD

Const No 2013

M234-T1

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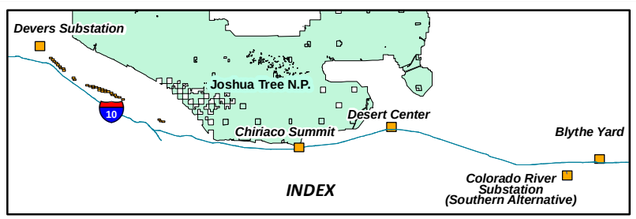

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET
02 of 32

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2015

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Const No 2016

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0 50 100 200 300 400 Feet

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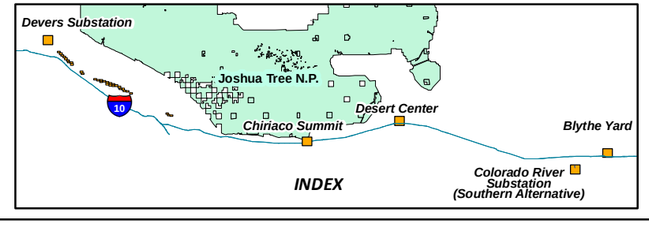

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET 03 of 32

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2017

M233-T1

20TH AVE

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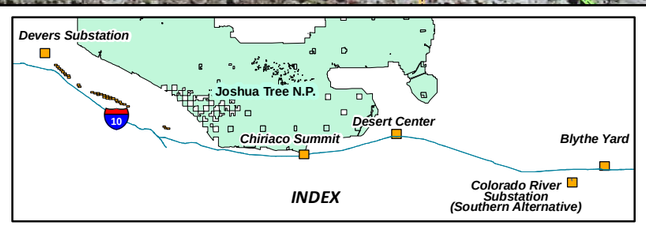

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET
04 of 32

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2018

M232-T3

PALM DR

Const No 2019

M232-T2

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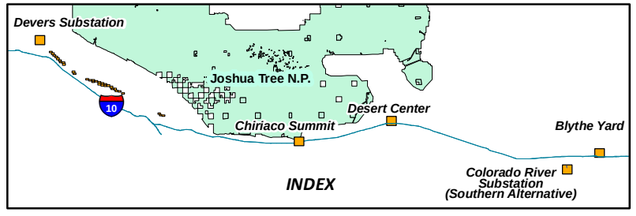

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET
05 of 32

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

MP 105

PALM DR

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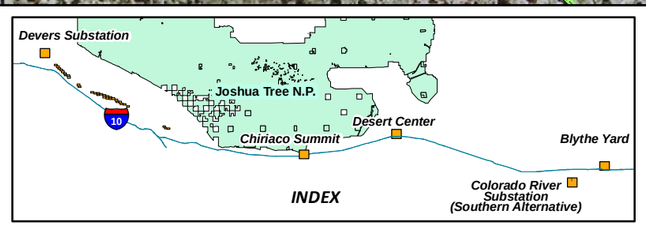

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET
06 of 32

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2100

M231-T4

VARNER RD

PALM DR

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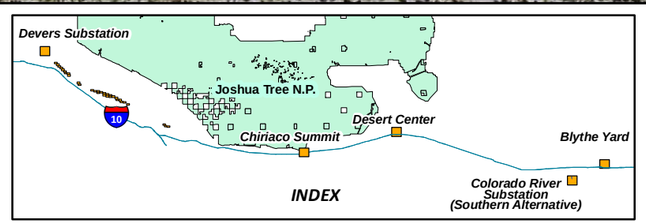

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET
07 of 32

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

VARNER RD

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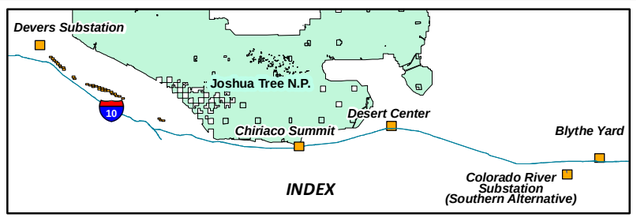

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET
08 of 32

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2102

M231-T2

Const No 2103

M231-T1

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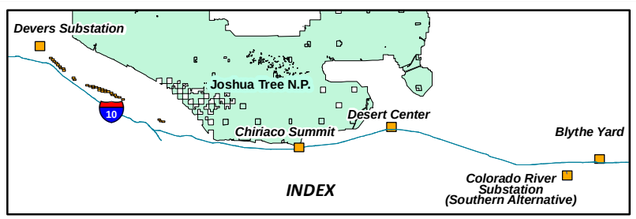

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET
09 of 32

August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGE-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2110

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VARNER RD

DATE PALM DR

Const No 2112

M228-T3

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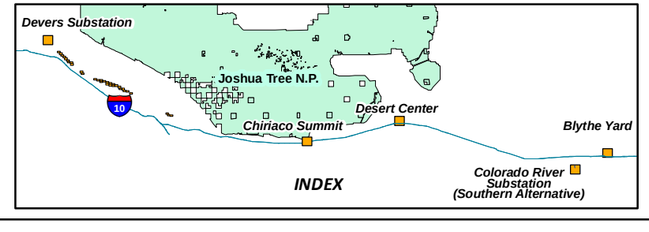

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET
10 of 32

August 4, 2011

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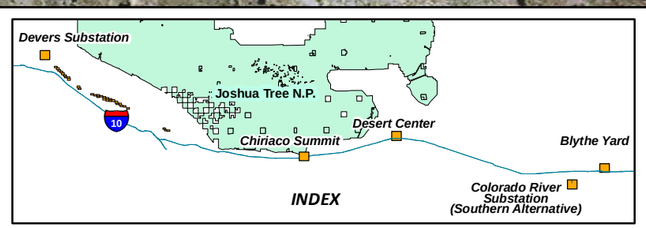
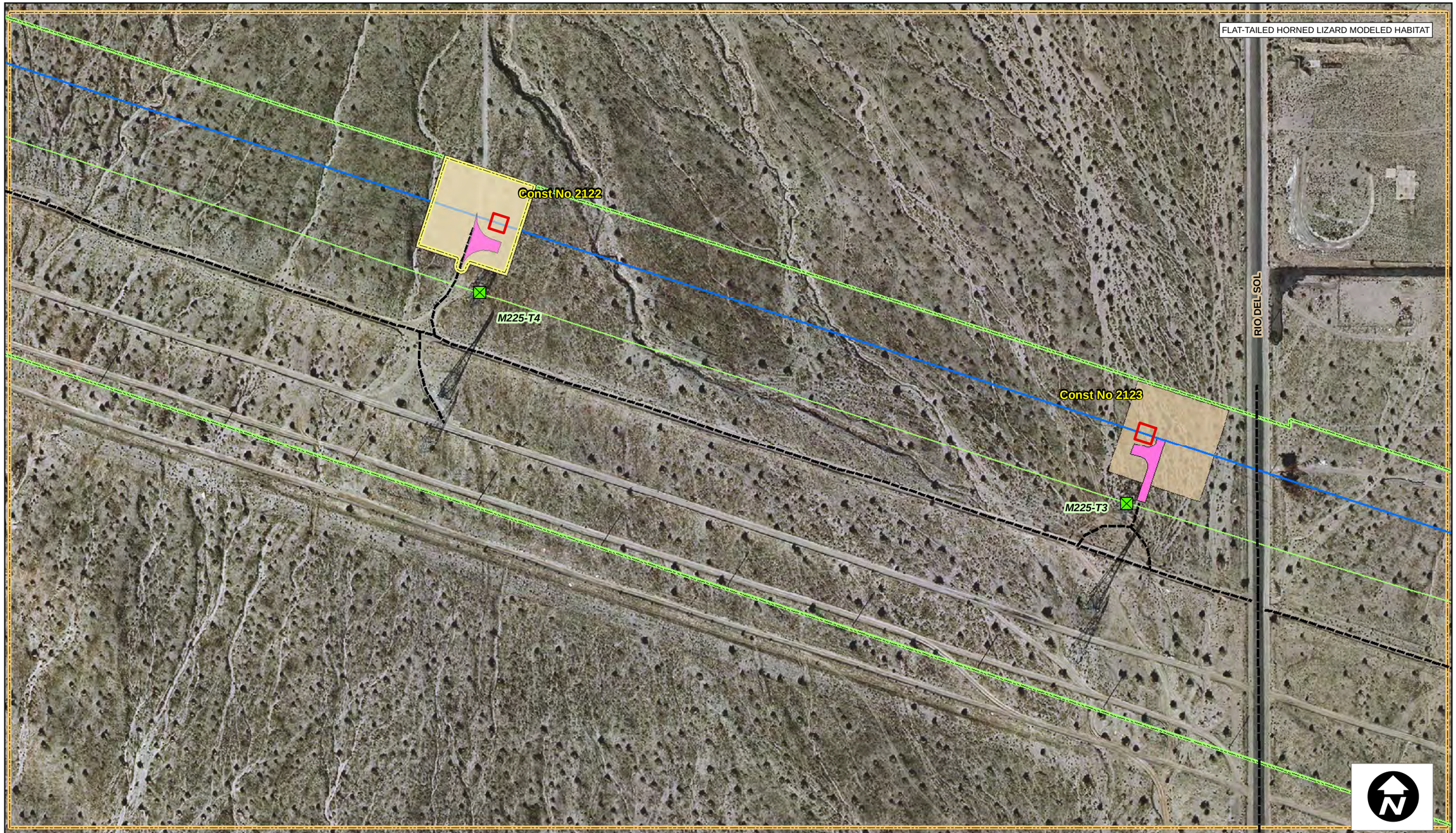


DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

SHEET 11 of 32

August 4, 2011



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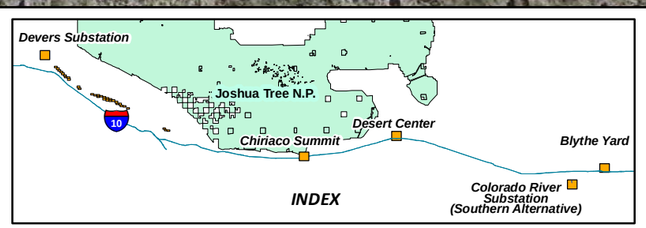
CONFIDENTIAL
Contains Critical Electric Infrastructure Information
If any questions contact Corporate Security (626-302-7875) for handling/storage requirements.

1 inch = 200 feet

0 50 100 200 300 400 Feet

Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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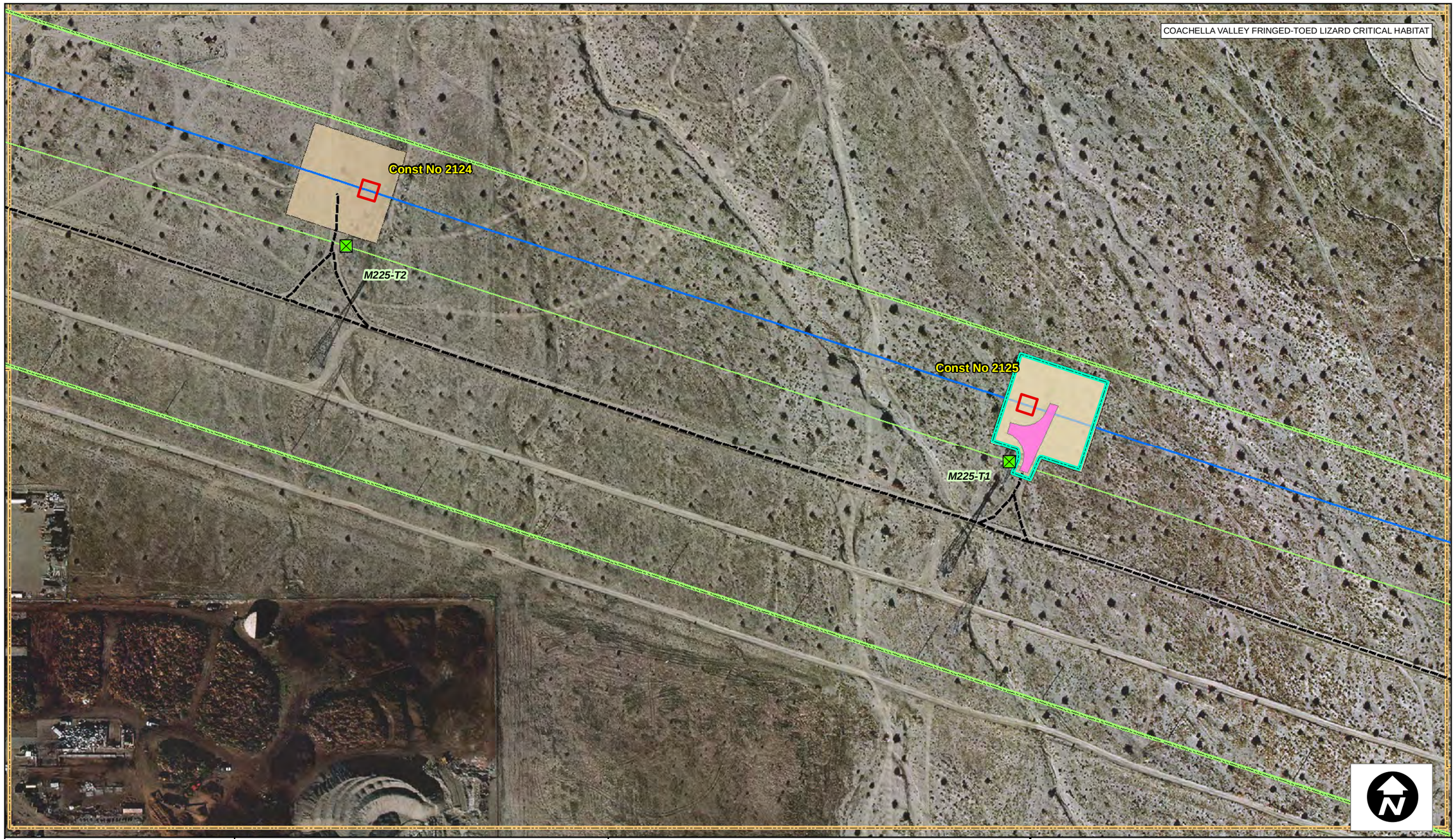
August 4, 2011



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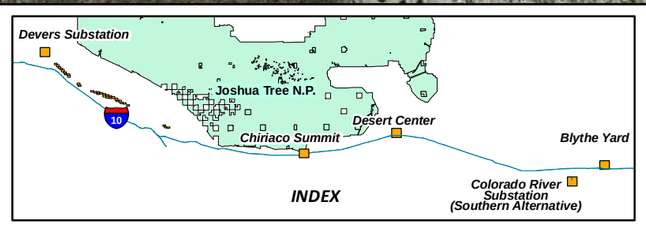
Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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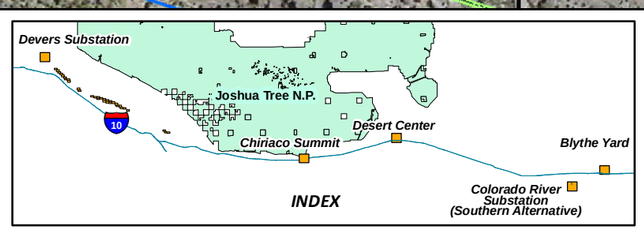

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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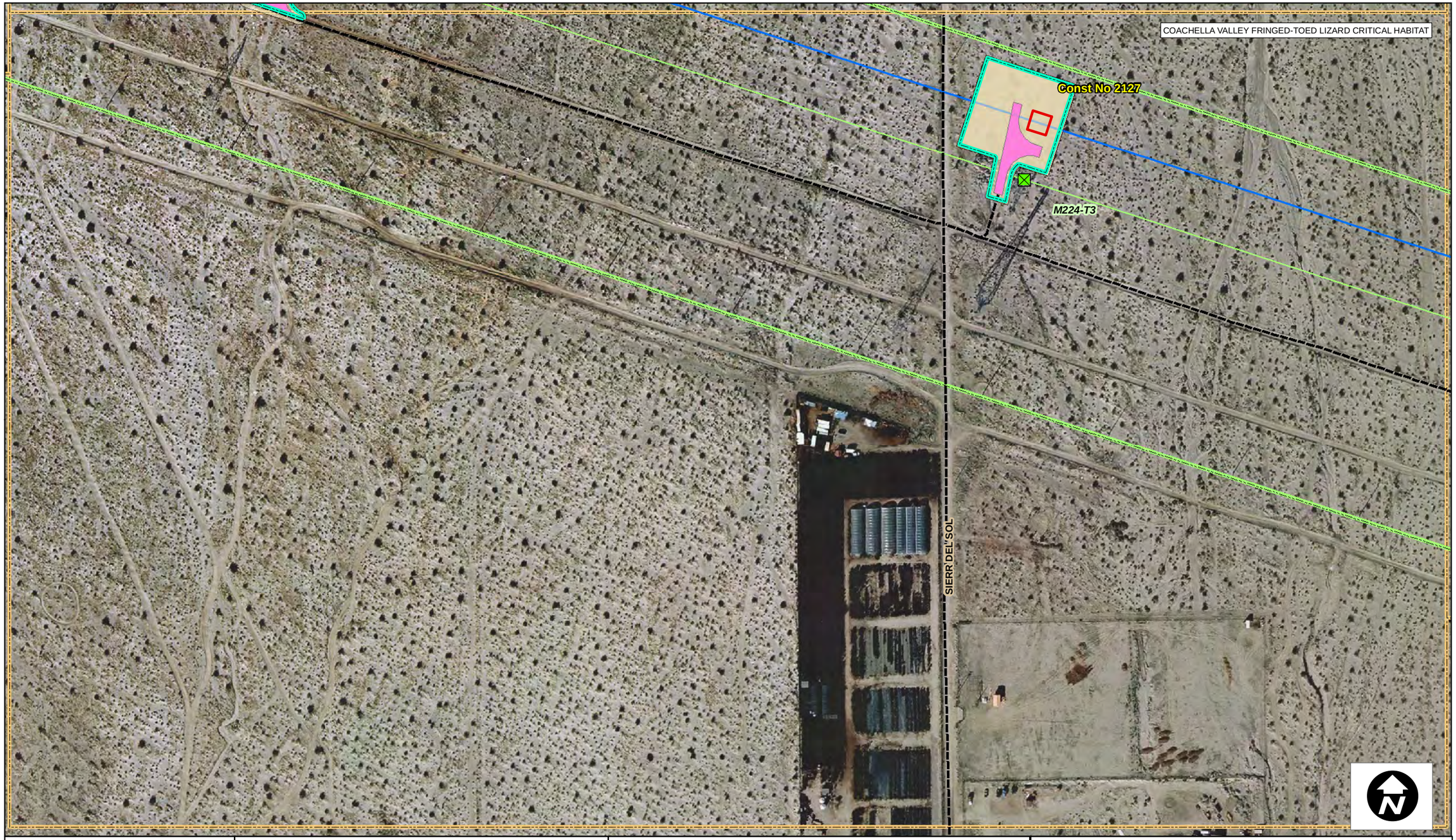
August 4, 2011



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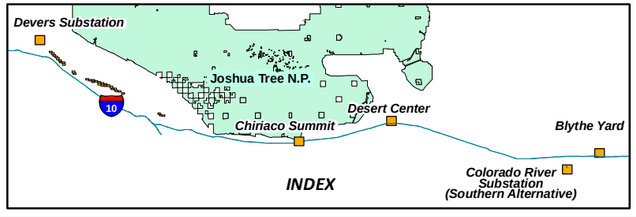
Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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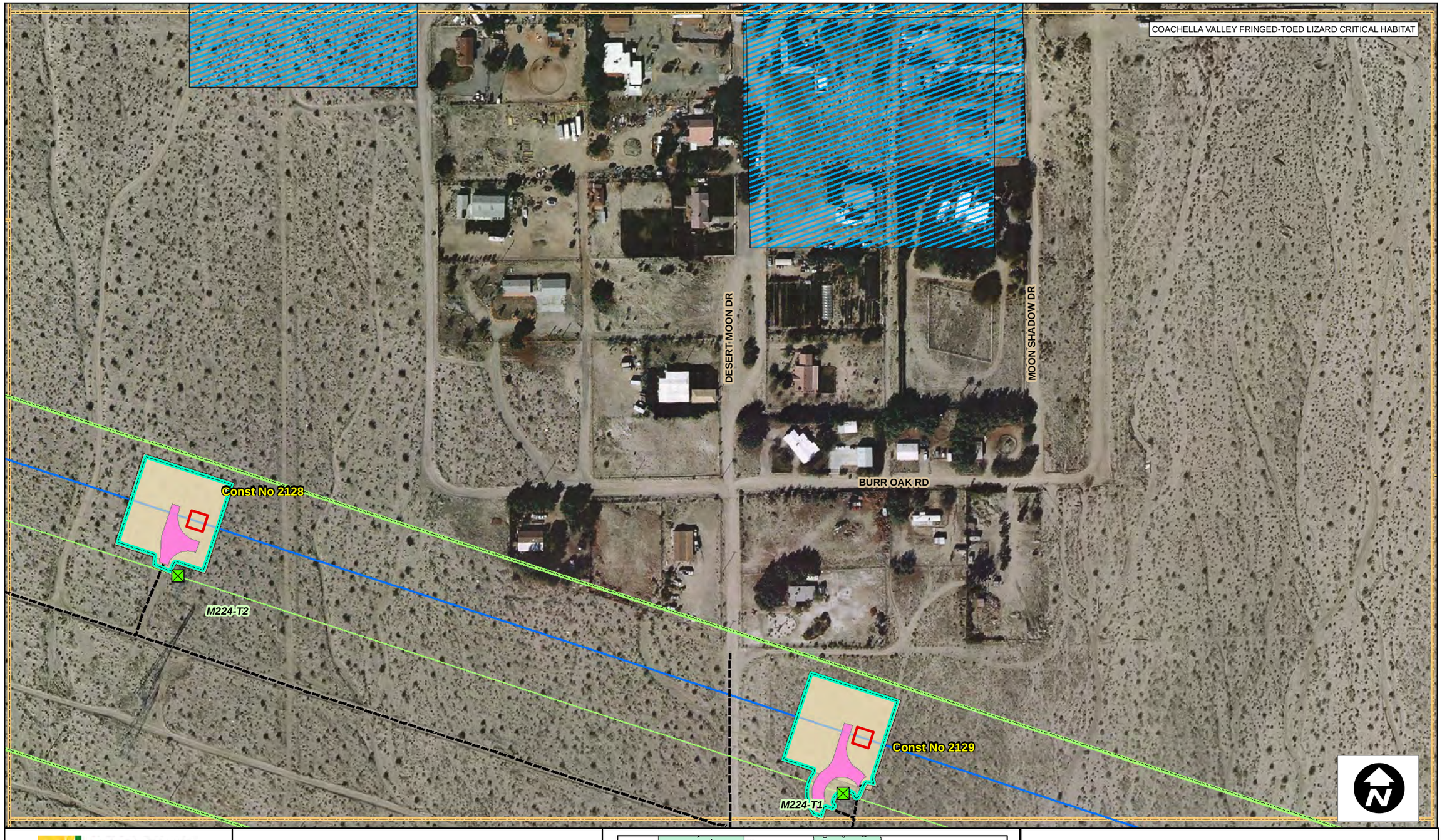
August 4, 2011



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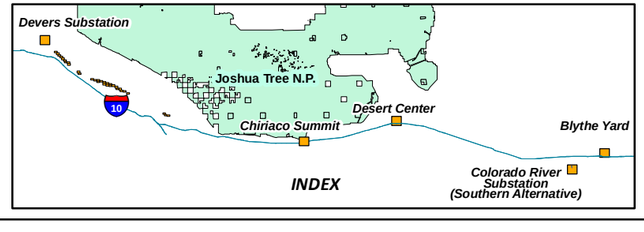
Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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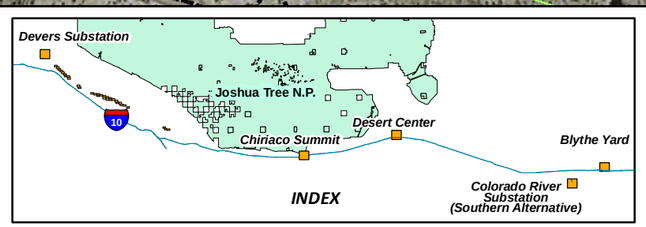
0 50 100 200 300 400 Feet

Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGED-TOED LIZARD CRITICAL HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

VIA LAS PALMAS

VISTA DE ORO

Const No 2132

M223-T1

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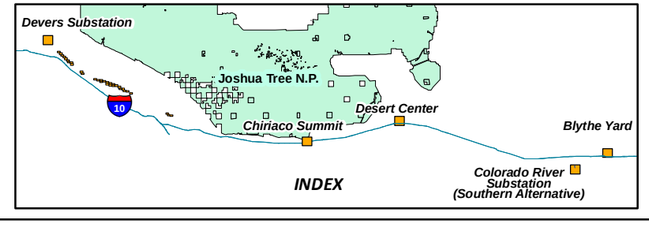
0 50 100 200 300 400 Feet

Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGED-TOED LIZARD CRITICAL HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2133

M222-T4

N

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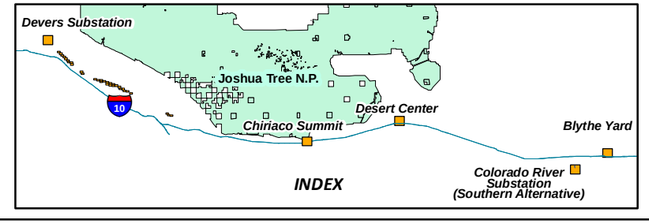
1 inch = 200 feet

0 50 100 200 300 400 Feet

Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGED-TOED LIZARD CRITICAL HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2134

M222-T3

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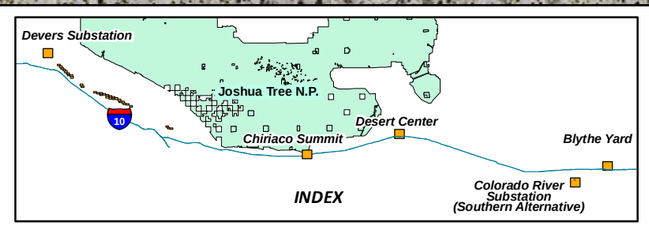
1 inch = 200 feet

0 50 100 200 300 400 Feet

Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

COACHELLA VALLEY FRINGED-TOED LIZARD CRITICAL HABITAT

MP 95

Const No 2135

M222-T2

SHADOW MOUNTAIN LN

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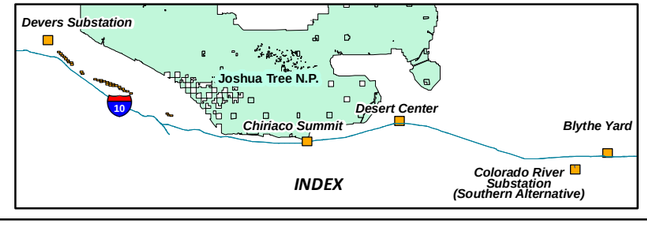
1 inch = 200 feet

0 50 100 200 300 400 Feet

Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

COACHELLA VALLEY MILK-VETCH MODELED HABITAT
COACHELLA VALLEY FRINGED-TOED LIZARD CRITICAL HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2136

M222-T1

TCHOUPITOULAS LN

AMITE LN

CHIMAYO RD

SHADOW MOUNTAIN LN

HIDDEN SPRINGS CT

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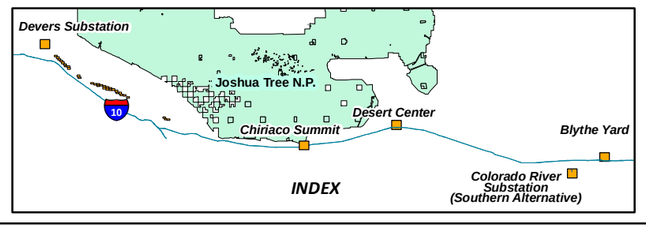
0 50 100 200 300 400 Feet

Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

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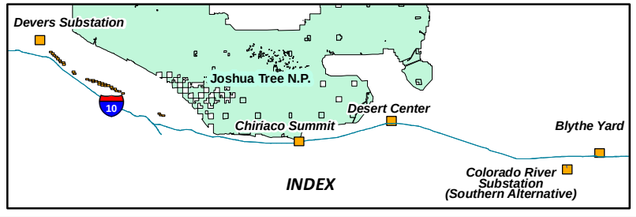

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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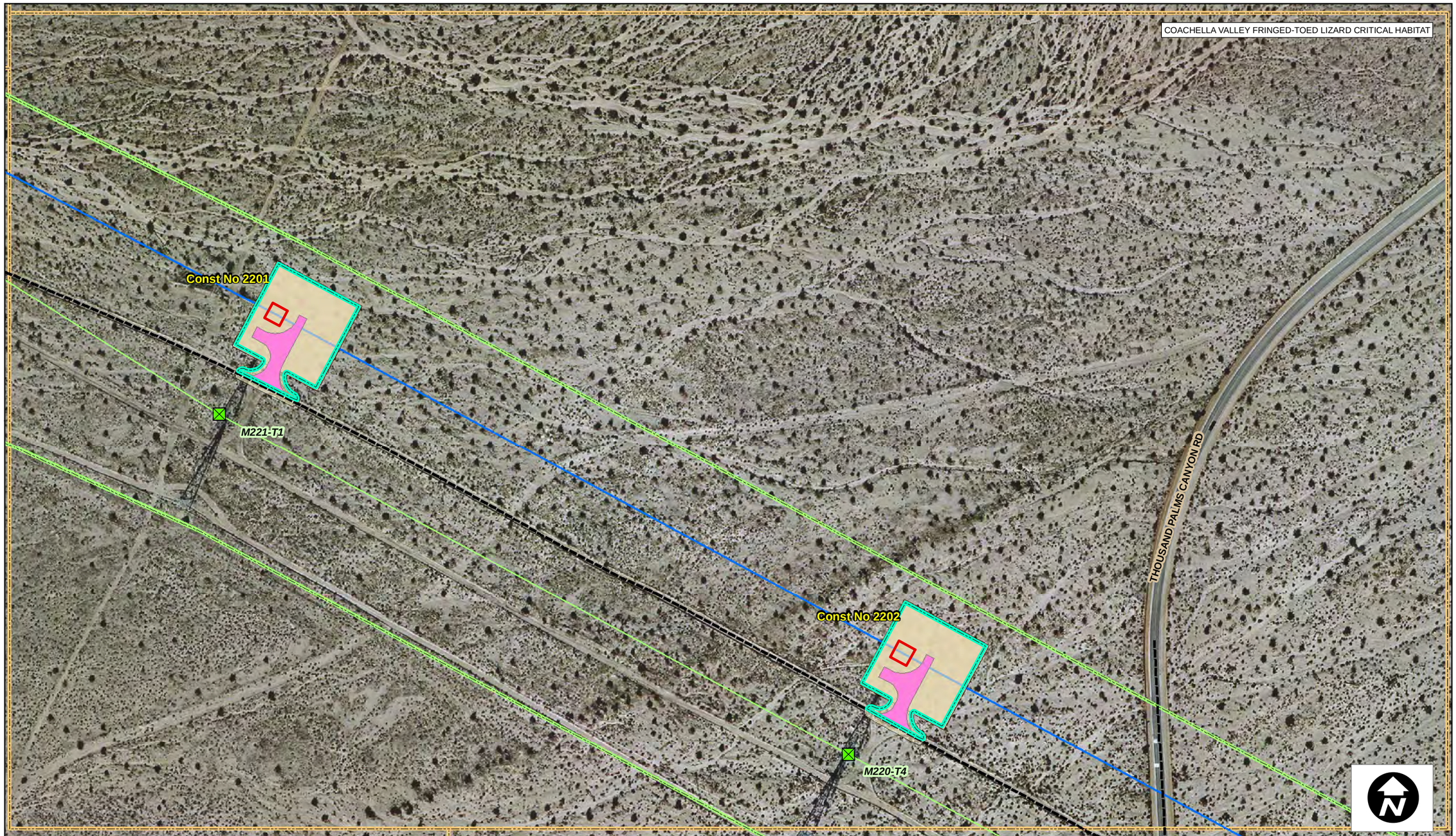
August 4, 2011



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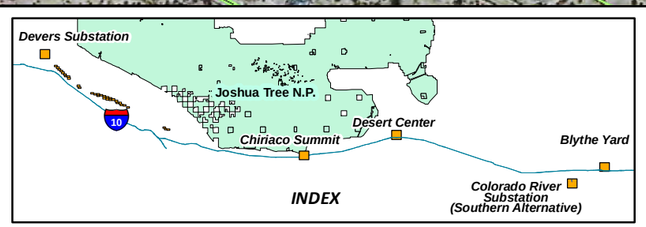

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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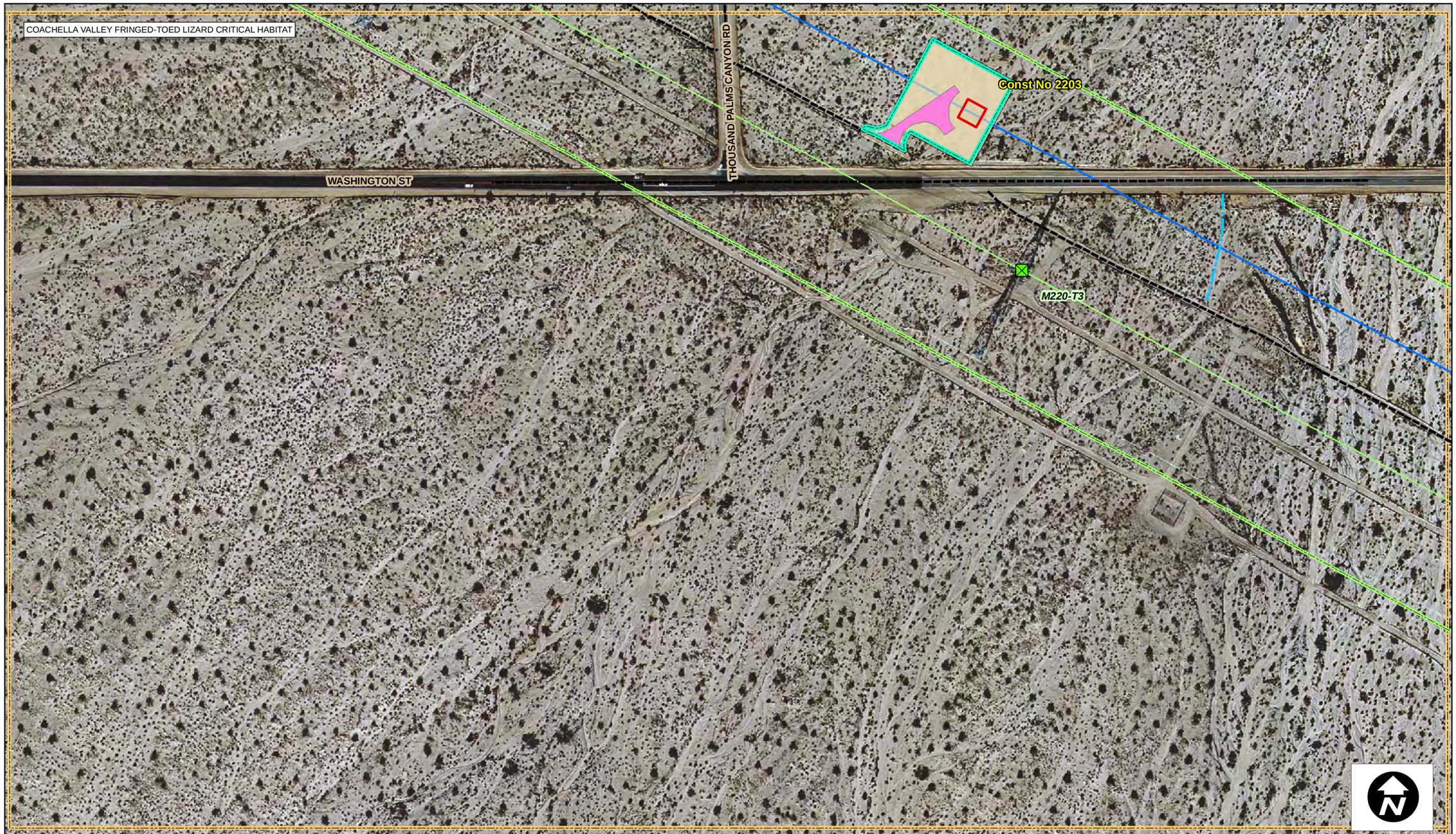
August 4, 2011



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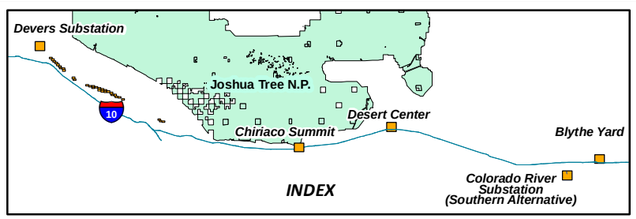

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

COACHELLA VALLEY FRINGED-TOED LIZARD CRITICAL HABITAT

WASHINGTON ST

Const No 2204

M220-T2

Const No 2205

M220-T1

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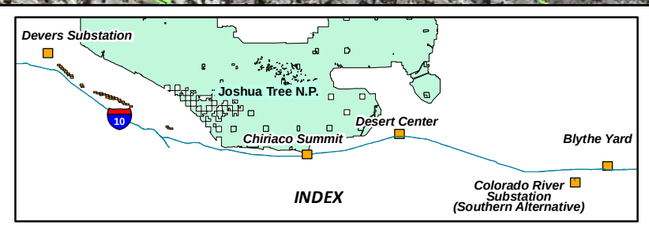

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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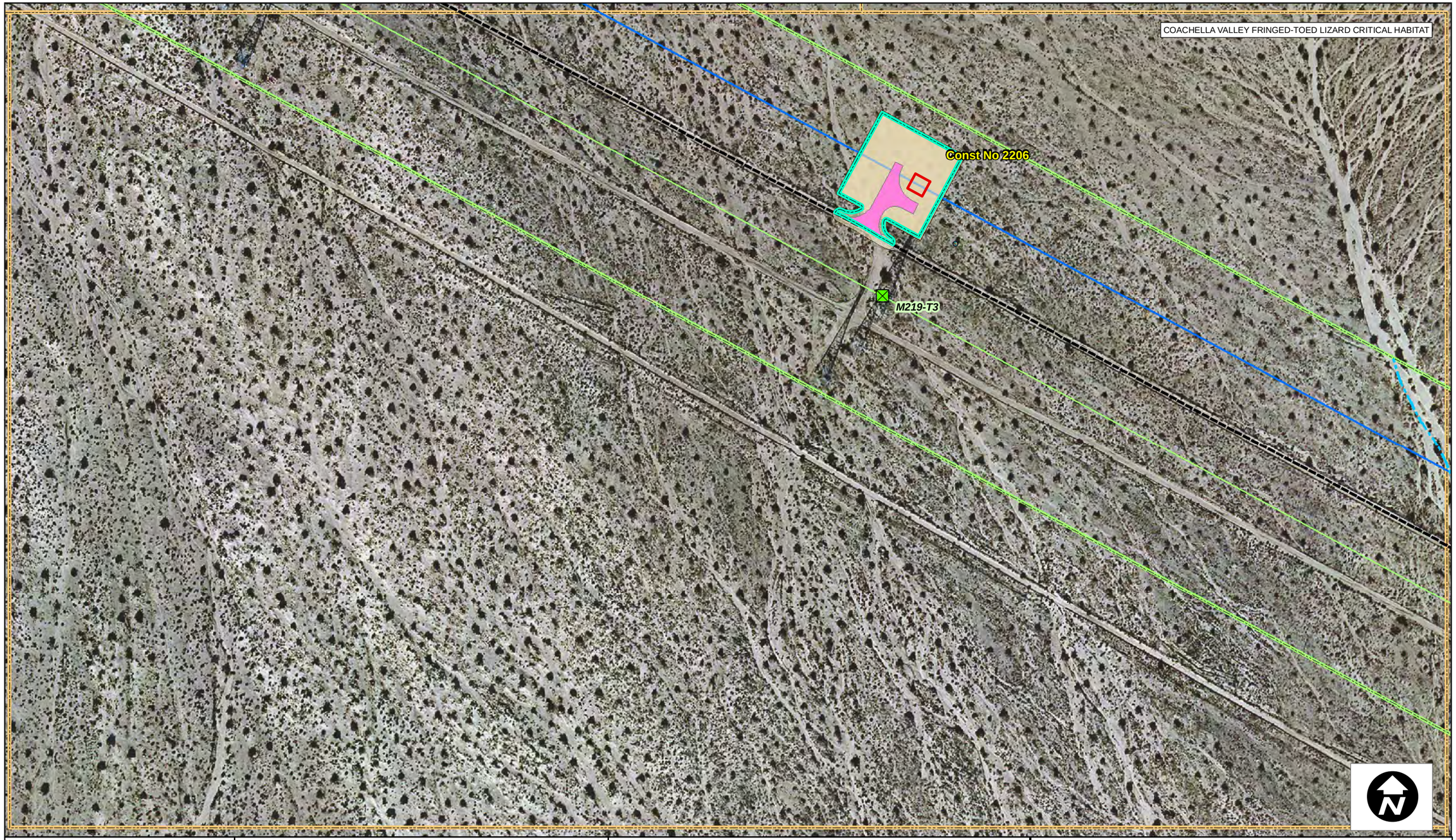
August 4, 2011



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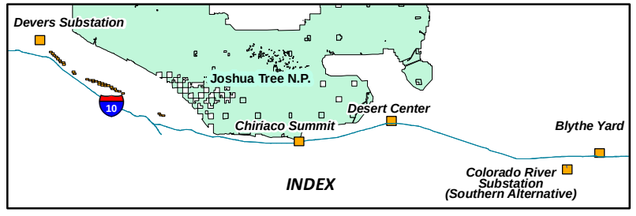

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

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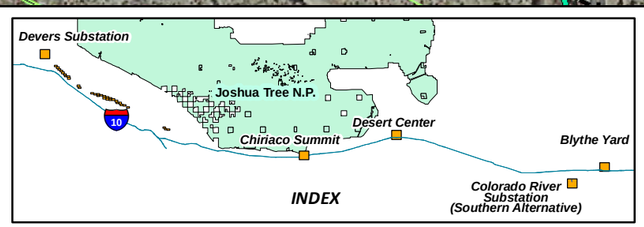

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2210

M218-T3

Const No 2211

M218-T2

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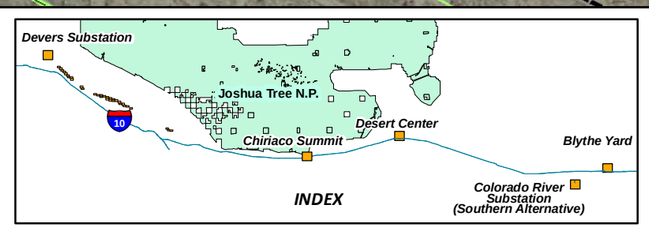
Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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COACHELLA VALLEY FRINGED-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2239

M210-T3

Const No 2240

M210-T2

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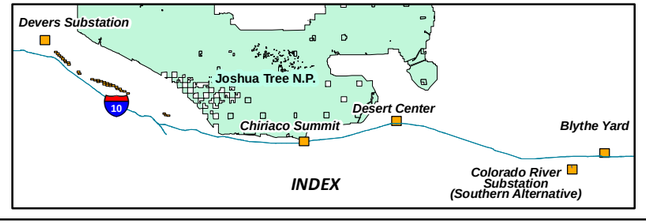
Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
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DESERT TORTOISE MODELED HABITAT
COACHELLA VALLEY FRINGED-TOED LIZARD MODELED HABITAT
FLAT-TAILED HORNED LIZARD MODELED HABITAT

Const No 2241

DILLON RD

M210-T1

Const No 2242

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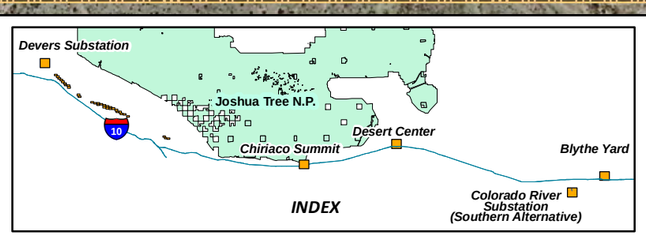
Projection: NAD 83 UTM Zone 11N



DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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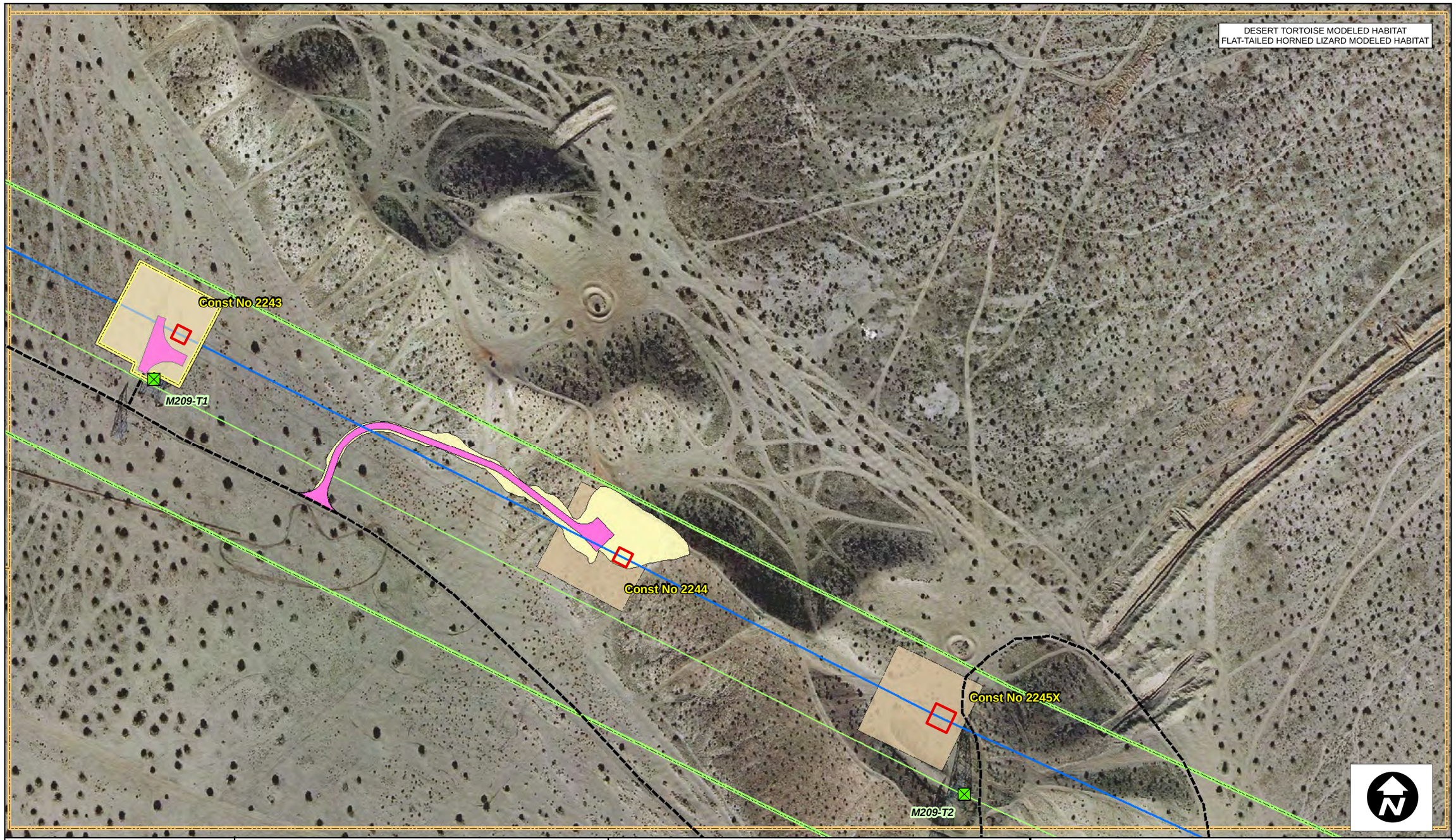
August 4, 2011



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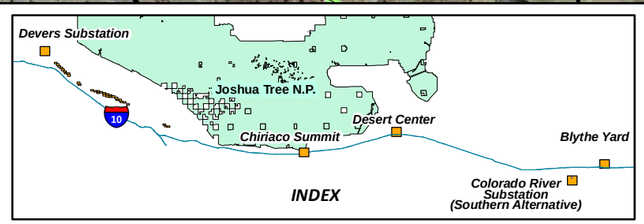

DEVERS-PALO VERDE NO 2 500kV TRANSMISSION LINE COLORADO RIVER SUBSTATION TO DEVERS SUBSTATION SEGMENT

Site Map
DPV2 Exclusionary Fencing

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August 4, 2011

ERTEC Environmental Systems

Protecting Global Lands and Waterways™

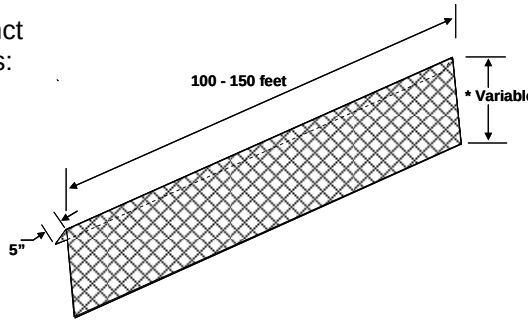
E-Fence™

Special Status Species Control

ERTEC E-Fence™ is a patent pending, highly reliable and low cost species exclusion and control barrier designed for projects in habitat where threatened small vertebrates are present. The fence is designed to exclude small vertebrate species from active construction areas, control movement within fragmented habitat and for survey perimeter control. The barrier is made from a heavy and rigid polymer matrix which is extruded for strength and durability. The extruded strands of the ERTEC polymer matrix will not separate, stretch or entrap even persistent intruders. It is non-toxic and environmentally safe. Even after extensive exposure to sun, harsh weather and salt water it continues to perform. Unlike silt fence or plywood fence, E-Fence allows wind and water flow-through. It provides very high uptime which significantly reduces maintenance and monitoring costs. It can withstand abrasion without losing its shape. Its smooth surface is highly resistant to adhesion, slippery to climbers, will resist accumulation of debris. E-Fence can be used for temporary or long duration requirements. A ZERO Waste solution (recycled, reusable, recyclable). Accepted by USFWS.

Configurable for distinct special-status-species:

Options:
- Height
- Trench Depth
- Climber Barrier
- Snake Funnel



100% American Content / Labor

ZERO Waste
✓Recycled
✓Reusable
✓Recyclable

Key Product Characteristics

Unit weight, (lbs/sq ft)	0.16 - 0.19	Recycled Material Content (minimum)	90%
Functional life (minimum)(years) GRN/BLK	4+/15+	Reusable	YES
Dimension – segment lengths (ft)	100 to 150	Recyclable	YES
Configurable for different species	YES	UV Stability ASTM D4355 %	96
Optional Climber Barrier dimension (in)	5	Service temperature (deg F)	-30 to 160

Product Benefits –

- Very reliable (reduces washouts and blow-downs)
- Lowest total costs
- Lasts entire project
- Very little maintenance
- Significantly reduced monitoring
- Configurable for distinct species

Product Designation	Dimensions
E-Fence Width: 10 in, 20 in, 30 in	150 feet segments, variable configurations, Black
E-Fence Width: 40 or 42 in	100 feet segments, variable configurations, Black
E-Fence Width: 48 in	100 feet segments, variable configurations, Black or Orange
Configurable for different species	Climber Barrier, Snake Funnel, Trench Depth, Barrier Height, Duration See Specification for recommended configuration for each species

Design and Installation	For proper design and installation refer to the Installation and Maintenance guide.

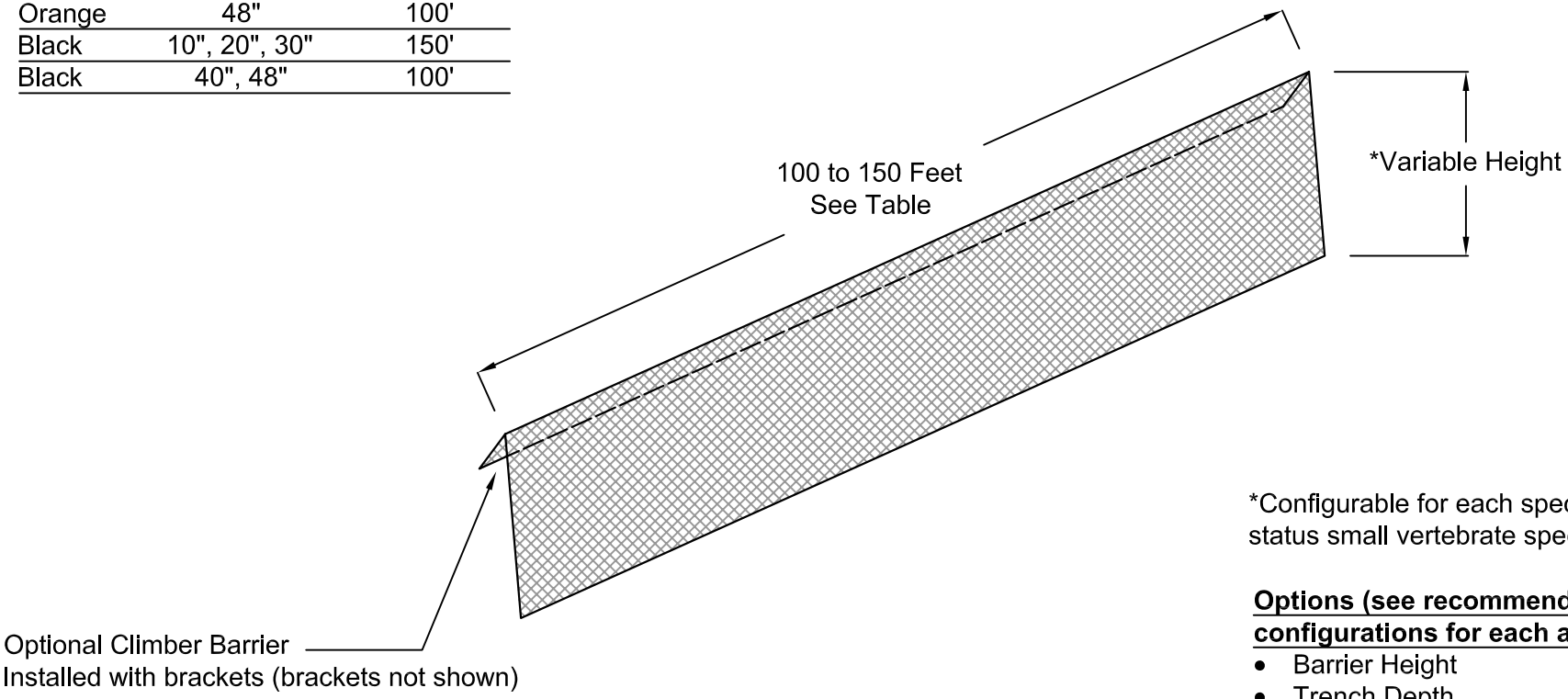
H37615 updated: 06/11

(866) 521-0724
www.ertecsystems.com

ERTEC® E-Fence™

Details

Color	Width	Roll Length
Orange	48"	100'
Black	10", 20", 30"	150'
Black	40", 48"	100'



*Configurable for each special status small vertebrate species.

Options (see recommended configurations for each animal):

- Barrier Height
- Trench Depth
- Barrier Lip
- Snake Funnel

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File Name: ERTEC - Installation Details - E-Fence.dwg
Layout Name: P1 Details
Default Print Size: 8.5" x 11"
Page: 1 of 6

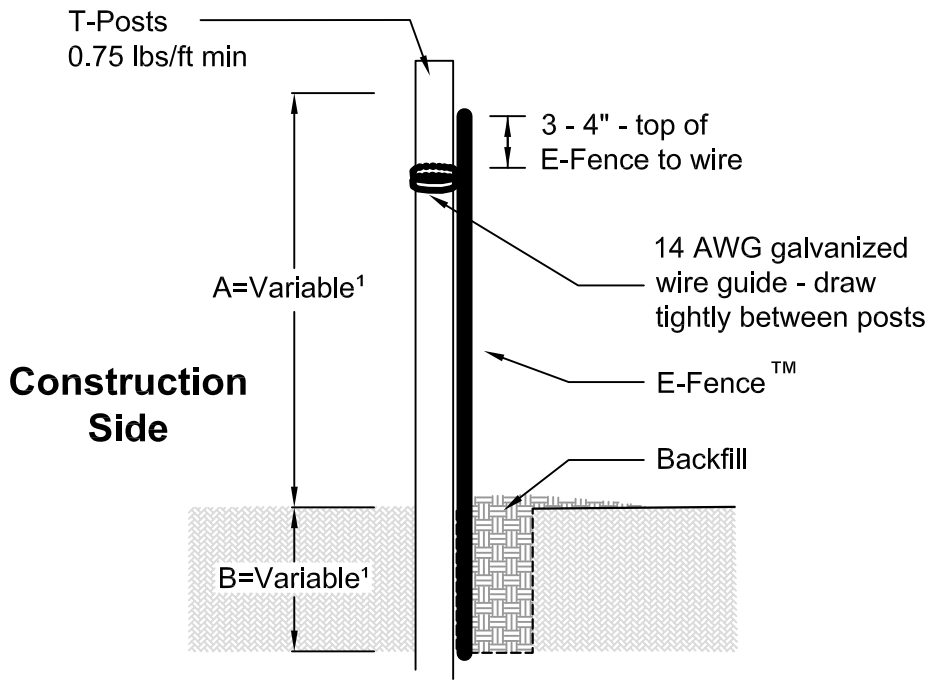
Figure 2

Exclusionary Fencing Specification Sheets

ERTEC® E-Fence™

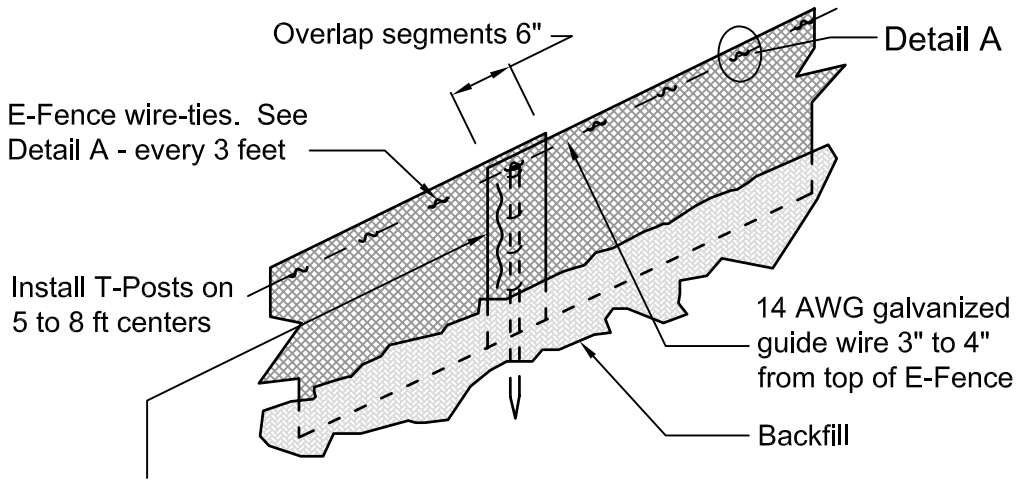
Installation Details

NO CLIMBER BARRIER



Notes:

1. Excavate a trench a minimum of 4" wide and a minimum of 5" to 12" deep (depending on species, see Table B in specifications). The trench shall be cleared of obstructions.
2. Unless otherwise specified, T-posts shall be a minimum of 0.75 lbs/ft. Length of T-posts may be a minimum length between 3' and 5' dependent upon the wildlife species and the width of the barrier material. T-posts shall be driven a minimum of 16" into the ground. When the barrier does not have a climber barrier, T-posts shall be installed on the side of the trench closest to construction activities. T-posts shall be installed a maximum of 8' apart. In areas with high winds, T-posts should be installed a maximum of 5' apart. The Project Engineer or Project Manager will specify.
3. Wrap 14 AWG galvanized guide wire around each T-post, so the guide wire is 3" to 4" from the top of the fence. Extend the guide wire from post to post, secure and pull wire tight between posts.
4. Insert barrier (fence material) into trench against the posts.
5. At segment overlaps, overlap segments a minimum of 6". Install a T-post at the section overlap. At 10" increments up and down the post, utilizing 14 AWG galvanized wire (8" cut wire segments), tie the fence to the post. Close gaps at the ends of the fence segment by threading 14 AWG galvanized wire, closing the segments together.
6. Using E-Fence wire ties, connect the guide wire to the fence at 3' intervals, as illustrated in Detail A of the installation guidelines. Crimp E-Fence wire-tie loops around guide wire tightly.
7. E-Fence must be installed in continuous lengths (100 or 150 feet). Do not cut segments into shorter panels.
8. If required: install optional snake funnels as specified. Ground clearance at small opening of funnel should be at least 1.0 inch. Attach funnel to E-Fence™ with 14 AWG galvanized wire. Close all gaps. Install 1"x2"x18" wood posts on each side of funnel. Attached E-Fence™ to posts on each side of funnel with non-corrodible screws with 1 inch washers.
9. Backfill trench with native soil.



At section overlaps, install post and secure with galvanized wire-ties every 10 inches up vertical. Sew flap with 14 AWG galvanized wire.

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File Name: ERTEC - Installation Details - E-Fence.dwg

Layout Name: P2 Installation Details

Default Print Size: 8.5" x 11"

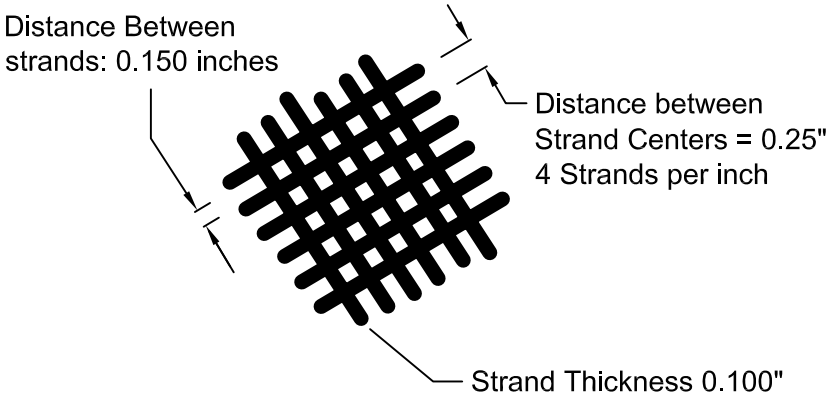
Figure 2

Exclusionary Fencing Specification Sheets

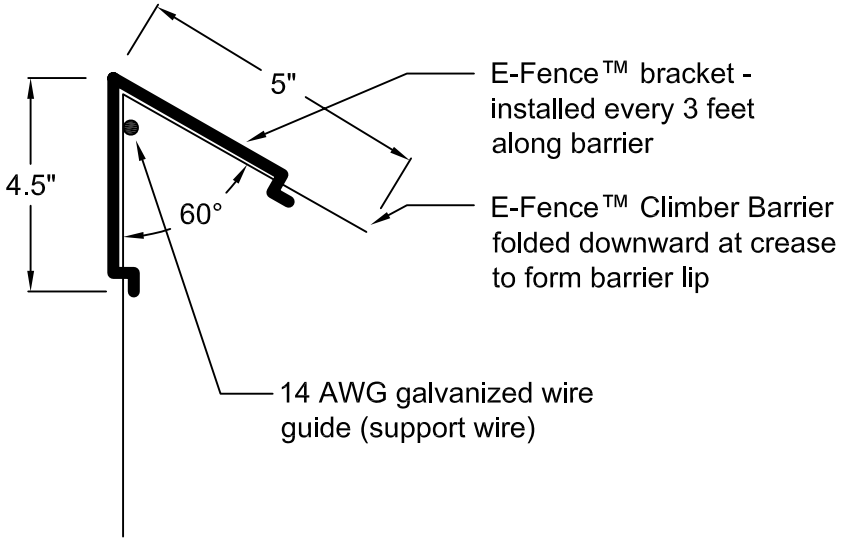
ERTEC® E-Fence™

Details

Nominal Barrier Dimensions:



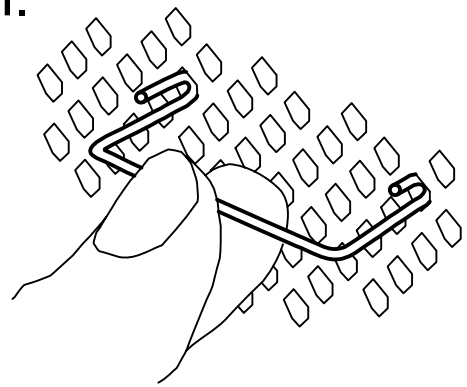
Detail B: E-Fence Barrier Lip



Detail A: Installing E-Fence Wire Ties:

1). Push E-Fence tie through barrier. 2). Expose hooks on side near guide wire. 3). Insert guide wire. 4). Crimp tightly.

1.



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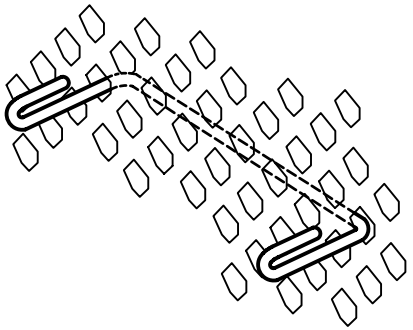

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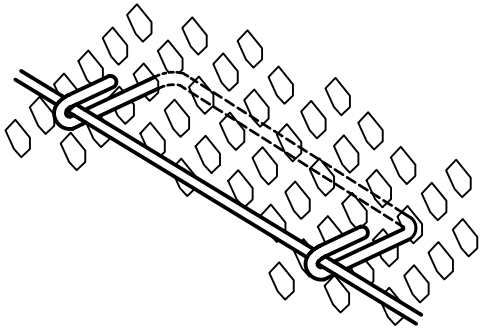

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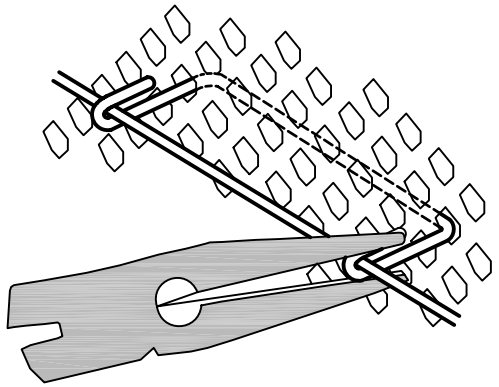

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File Name: ERTEC - Installation Details - E-Fence.dwg

Layout Name: P5 Details

Default Print Size: 8.5" x 11"

Page: 5 of 6

Figure 2

Exclusionary Fencing Specification Sheets

ERTEC® E-Fence™

Purpose

E-Fence is a patent pending, durable and low cost system designed for areas where construction can occur in a habitat where threatened small vertebrates are widely distributed. The fence is designed to exclude small vertebrates from work areas.

Design Criteria

For detailed product characteristics contact ERTEC Environmental Systems at (866) 521-0724 or www.ertecsystems.com. For installation procedures, follow the installation guidelines available at www.ertecsystems.com.

Maintenance

Inspect E-Fence periodically for holes or openings. Holes can be patched with pieces of E-Fence using black UV stable cable ties or galvanized wire. Openings at overlaps should be secured with galvanized wire, or wire ties. Opening can also be caulked with caulking material.

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File Name: ERTEC - Installation Details - E-Fence.dwg
Layout Name: P6
Default Print Size: 8.5" x 11"
Page: 6 of 6

Wildlife Barrier for Special-Status Small Vertebrates

- **Construction Site Special-Status Species Exclusion**
- **Directional Control**
- **Perimeter Control for Surveys**

GUIDE SPECIFICATION

PRODUCT:
E-Fence™

MANUFACTURER:
ERTEC®
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Phone: 866-521-0724
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1.0 Description:

Special-**S**tatus-**S**pecies **E**xclusion and Control **S**ystem (SSSES) for special-status small vertebrates shall conform to the details shown on the plans and these special provisions and shall be installed around the perimeter of construction sites and/or survey areas, to control movement as a directional barrier or in designated areas. The primary function of the SSSES is to prevent special-status small vertebrates from entering construction sites where they can be killed, injured or isolated or provide directional control within fragmented habitat.

2.0 Material:

Provide SSSES as shown on the plans.

A. **Barrier Configuration.** Furnish SSSES with a configuration based on the species to be controlled as per Table B. Furnish barrier in minimal 100 to 150 foot segments (10" width at 150 feet, 20" width at 150 feet, 30" width at 150 feet, 40" width at 100 feet, 48" width (orange only at 100 feet) to minimize segment overlaps.

B. **Barrier Materials & Structure.** Furnish SSSES manufactured from non-biodegradable materials which are UV and dimensionally stable for at least 4 years (non-black), at least 10 years (black). The system shall:

   a. comprise a monolithic rigid polymer matrix

   b. be thermally extruded into an apertured sheet with rigid and thermally bonded strands

   c. be made from recycled base polymers such as high density polyethylene (HDPE #2)

   d. be made from recycled polymer feedstock – content minimum shall be 95%

   e. be durable, so that it can be reused on several projects

   f. conform to the requirements in Table A below

D. **Product Sheet.** A copy of the manufacturer's product data sheet together with instructions for installation shall be furnished to the Engineer 5 days before installation.

E. **Posts.** Installations shall use reusable metal T-Posts (0.75 lbs/ft assembled with spade). Posts should be installed every 5 to 10 feet (see installation instructions for specific configuration

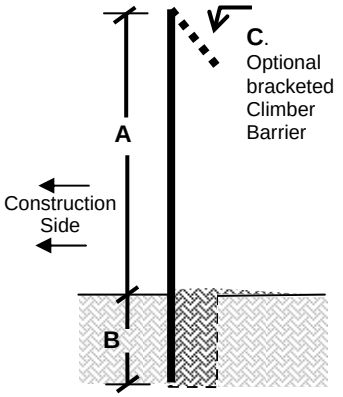
and species) and at each segment overlap. Install posts on 5 foot centers in areas of high wind. Install posts on 10 foot centers when fence height is 30 inches or less.

Table A: SSSES material property requirements

Specification	Design Characteristics	Mat'l Requirements HDPE or Recycled HDPE
Barrier Height	Animal	See Configuration Table B column 2
Section Length (for widths 20", 30", 40", 48") (ft)	Minimize joints	150, 150, 100, 100
Strand Deformation – 0.375" sphere pull-through at 68°F (lbs) (minimum)	Intrusion resistance, entrapment resistance	38
Distance between strands (in) (maximum)	Intrusion resistance, entrapment resistance	0.185
Strand thickness (in) (maximum)	Intrusion resistance, entrapment resistance	0.10
Distance between strand centers (in) (maximum)	Intrusion resistance, entrapment resistance	0.25
Mass per Unit Weight range (lbs/ft^2)	Installation ease	0.16 to 0.19
Tensile Strength – machine direction ASTM D4595 (lbs) (minimum)	Dimensional Stability	400
Tensile Strength – transverse direction ASTM D4595 (lbs) (minimum)	Dimensional Stability	325
Aperture Size – Cylinder PASS (dimensional range within which a cylinder will pass thru) (in)	Allow wind & water passage	0.141 - 0.156
Aperture Size – Cylinder NO PASS (smallest dimension that will not pass) (in)	Confine juvenile vertebrates	0.212
Ultraviolet stability - percent tensile strength retained ASTM D 4355	Long term property retention	96%
Thickness ASTM 5199 minimum (in)	Dimensional consistency, Deformation and intrusion resistance	0.115
Life in application minimum (yrs) ORANGE/BLACK	Durability, Reusability	4+/10+
Friction Coefficient (published base polymer data)	Climbing resistance, Resist accumulation of organic materials	<0.3
Shore Hardness (published base polymer data) at 68°F	Burrowing resistance	95
CBR Puncture strength ASTM D 6241 nominal (lbs)	Burrowing resistance, Intrusion resistance	237
Flow Rate ASTM D 4491 minimum gal/min/ft^2	Washout prevention	650
Low Temperature Brittleness (published base polymer data) ASTM D 746 (°F)	Extreme cold weather durability	-106
Operating Temperature (published base polymer data) range (°F)	All weather durability, Property retention	-30 to 160
Separation of stand planes (distance) (in - nominal)	Climbing resistance	0.02 - 0.04
Angle of strands (between stands and ground plane) (degrees)	Climbing resistance	70 to 80

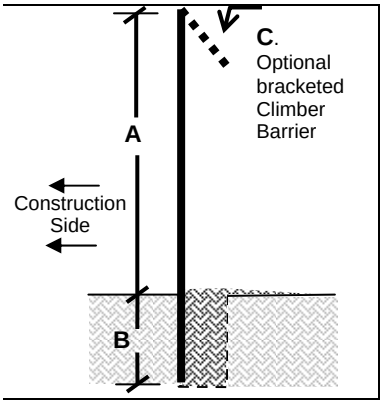
3.0 System Configuration.

Table B: System Configuration requirements



Common Name (Scientific Name)	A Barrier Height (in)	B Trench Depth (in)	C 5" Bracketed Climber Barrier (Y/N)	One-Way Funnel (Y/N)	Barrier Designation EF = Exclusion Fencing Digits = Sheet width (in) Letters: L= Climber Barrier, F= Funnel	
Frogs						
California red-legged frog *(Rana draytonii)*	**30**	**5**	**Y**	**N**	**EF40L**	**Configuration previously accepted by USFWS** Barrier type: 4 strands/in
Foothill yellow-legged frog *(Rana boylii)*	**30**	**5**	**Y**	**N**	**EF40L**	**Configuration previously accepted by USFWS** Barrier type: 4 strands/in
Sierra Nevada yellow-legged frog *(Rana sierrae)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Sierra Madre yellow-legged frog *(Rana muscosa)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Northern leopard frog *(Rana pipiens)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Lowland leopard frog *(Rana yavapaiensis)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Oregon spotted frog *(Rana pretiosa)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Northern red-legged frog *(Rana aurora)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Cascades frog *(Rana cascadae)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Coastal tailed frog *(Ascaphus truei)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Toads						
Colorado River toad *(Bufo alvarius)*	18	12	N	N	EF30	Barrier type: 4 strands/in
Arroyo toad *(Bufo microscaphus californicus)*	36	6	N	N	EF42	**Configuration previously accepted by USFWS** Barrier type: 4 strands/in
Yosemite toad *(Bufo canorus)*	18	12	N	N	EF30	Barrier type: 4 strands/in
Coach's spadefoot toad *(Scaphiopus couchii)*	18	12	N	N	EF30	Barrier type: 4 strands/in
Western spadefoot toad *(Spea hammondii)*	18	12	N	N	EF30	Barrier type: 4 strands/in
Turtles/Tortoises						
Western pond turtle *(Actinemys marmorata)*	14	6	N	N	EF20	**Configuration previously accepted by USFWS** Barrier type: 4 strands/in
Northwestern pond turtle *(Clemmys marmorata marmorata)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Southwestern pond turtle *(Clemmys marmorata pallida)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Desert tortoise *(Gopherus agassizii)*	18	12	N	N	EF30	**Configuration previously accepted by USFWS for temporary installations** Barrier type: 4 strands/in

Figure 2
Exclusionary Fencing Specification Sheets

Common Name (Scientific Name)	A Barrier Height (in)	B Trench Depth (in)	C 5" Bracketed Climber Barrier (Y/N)	One-Way Funnel (Y/N)	Barrier Designation EF = Exclusion Fencing Digits = Sheet width (in) Letters: L= Climber Barrier, F= Funnel	

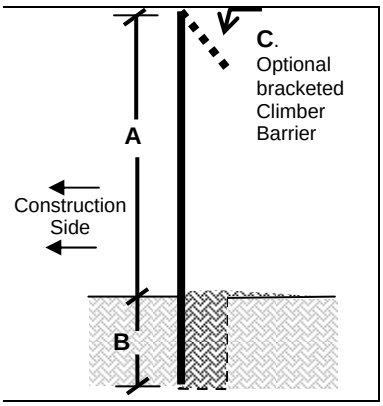
Salamanders

California Tiger Salamander *(Ambystoma californiense)*	**14**	**6**	**N**	**N**	**EF20**	**Configuration previously accepted by USFWS*** Barrier type: 4 strands/in
Southern torrent salamader *(Rhyacotriton variegates)*	14	6	N	N	EF20	Barrier type: 4 strands/in
California Coast Range newt *(Taricha torosa)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Inyo Mountain slender salamander *(Batrachoseps campi)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Yellow-blotched salamander *(Ensatina eschscholtzii croceater)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Large-blotched salamander *(Ensatina eschscholtzii klauberi)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Limestone salamander *(Hydromantes brunus)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Mt. Lydell salamander *(Hydromantes platycephalus)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Shasta salamander *(Hydromantes shastae)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Owens Valley web-toed salamander (*Hydromantes platycephalus*)	14	6	N	N	EF20	Barrier type: 4 strands/in
Scott Bar salamander (*Plethodon asupak)*	14	6	N	N	EF20	Barrier type: 4 strands/in
Del Norte salamander *(Plethodon elognatus elongatus)*	14	6	N	N	EF20	Barrier type: 4 strands/in

Snakes

Alameda Whip Snake *(Masticophis lateralis euryxanthus)*	**30**	**5**	**N**	**Y**	**EF40LF**	**Configuration previously accepted by USFWS*** Barrier type: 4 strands/in
San Joaquin Whip Snake *(Masticophis flagellum ruddocki)*	**30**	**5**	**N**	**Y**	**EF40LF**	**Configuration previously accepted by USFWS*** Barrier type: 4 strands/in
Giant Garter Snake (*Thamnophis gigas)*	**30**	**5**	**N**	**N**	**EF40LF**	**Configuration previously accepted by USFWS*** Barrier type: 4 strands/in
Rosy boa (*Lichanura trivirgata)*	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
Southern boa *(Charina umbratica)*	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
California Rat Snake *(Elephe rosaliae)*	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
San Diego ringneck snake *(Diadophis punctatus similis)*	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
California mountain kingsnake *(Lampropeltis zonata)*	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
Santa Cruz Island gopher snake *(Pituophis catenifer pumilis)*	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
Coast patch-nosed snake *(Salvadora hexalepis virgultea)*	30	5	N	Y	EF40LF	Barrier type: 4 strands/in

Figure 2
Exclusionary Fencing Specification Sheets

Common Name (Scientific Name)	A Barrier Height (in)	B Trench Depth (in)	C 5" Bracketed Climber Barrier (Y/N)	One-Way Funnel (Y/N)	Barrier Designation EF = Exclusion Fencing Digits = Sheet width (in) Letters: L= Climber Barrier, F= Funnel	
Two-striped garter snake (Thamnophis hammondii)	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
Santa Catalina garter snake (Thamnophis hammondii ssp.)	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
South Coast garter snake (Thamnophis sirtalis infernalis)	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
San Francisco Garter Snake (Thamnophis sirtalis tetrataenia)	30	5	N	Y	EF40LF	Barrier type: 4 strands/in
Northern red-diamond rattle snake (Crotalus ruber)	30	5	N	Y	EF40LF	Barrier type: 4 strands/in

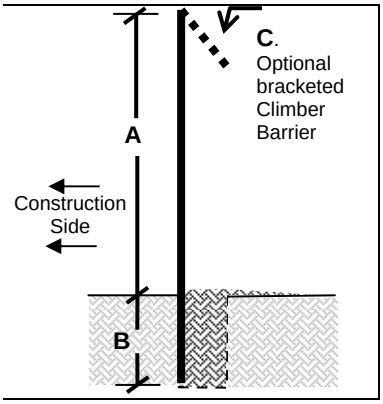
Lizards, Skinks

Blunt-nosed leopard lizard (*Gambelia sila)*	**30**	**5**	**Y**	**N**	**EF40L**	**Configuration previously accepted by USFWS*** Barrier type: 4 strands/in
Coachella Valley fringe-toed lizard *(Uma inornata)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Coast (San Diego) horned lizard (Phrynosoma coronatum *blainvillii)*;	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Coast horned lizard (Phrynosoma coronatum)	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Flat-tailed horned lizard (*Phrynosoma mcallii)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Panamint alligator lizard (*Elgaria panamintina)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Black legless lizard (*Anniella pulchra (nigra*))	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Silvery legless lizard (*Anniella pulchra pulchra)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in
Coronado skink (*Plestiodon skiltonianus interparietalis)*	30	5	Y	N	EF40L	Barrier type: 4 strands/in

Small Mammals

San Joaquin kit fox (Vulpes mutica mutica)	**35"**	**5**	**N**	**N**	**EF40**	**Configuration previously accepted by USFWS*** Barrier type: 4 strands/in
Tipton Kangaroo Rat (Dipodomys nitratoides nitratoides)	**35”**	**5**	**N**	**N**	**EF40**	**Configuration previously accepted by USFWS*** Barrier type: 4 strands/in
Stephens’ Kangaroo Rat (Dipodomys stephensi)	35	5	N	N	EF40	**Configuration previously accepted by USFWS*** Barrier type: 4 strands/in
Salt Marsh Harvest Mouse Reithrodontomys raviventris)	30”	5”	Y	N	EF40	Barrier type: 4 strands/in
Mount Lyell shrew (Sorex lyelli)	35"	5	N	N	EF40	Barrier type: 4 strands/in
Buena Vista Lake shrew (*Sorex ornatus relictus)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Monterey shrew (*Sorex ornatus salarius)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Southern California salt marsh shrew *(Sorex ornatus salicornicus)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Suisun shrew *(Sorex ornatus sinuosus)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Santa Catalina shrew (*Sorex ornatus willetti)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Salt-marsh wandering shrew (*Sorex vagrans halicoetes)*	35"	5	N	N	EF40	Barrier type: 4 strands/in

Figure 2
Exclusionary Fencing Specification Sheets

Common Name (Scientific Name)	A Barrier Height (in)	B Trench Depth (in)	C 5" Bracketed Climber Barrier (Y/N)	One-Way Funnel (Y/N)	Barrier Designation EF = Exclusion Fencing Digits = Sheet width (in) Letters: L= Climber Barrier, F= Funnel	
Monterey vagrant shrew (*Sorex vagrans paludivagus)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Pygmy rabbit (*Brachylagus idahoensis)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Riparian brush rabbit *(Sylvilagus bachmani riparius)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Sierra Nevada mountain beaver *(Aplodontia rufa californica)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Point Arena mountain beaver *(Aplodontidae rufa nigra)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Point Reyes mountain beaver *(Aplodontidae rufa phaea)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Island fox *(Urocyon littoralis)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Santa Catalina fox *(Urocyon littoralis catalinae)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
San Miguel fox *(Urocyon littoralis littoralis)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Santa Cruz fox *(Urocyon littoralis santacruzae)*	35"	5	N	N	EF40	Barrier type: 4 strands/in
Santa Rosa fox (*Urocyon littoralis santarosae)*	35"	5	N	N	EF40	Barrier type: 4 strands/in

(Revision Date: July 1, 2011* (check www.ertecsystems.com for most current version))

4.0 Installation:

General E-Fence trenched installation (no Climber Barrier)

1. Excavate a trench a minimum of 4" wide and a minimum of 5" to 12" deep (depending on species, see Table B in specifications). The trench shall be cleared of obstructions.
2. Unless otherwise specified, T-posts shall be a minimum of 0.75 lbs/ft. Length of T-posts may be a minimum length between 3' and 5' dependent upon the wildlife species and the width of the barrier material. T-posts shall be driven a minimum of 16" into the ground. When the barrier does not have a climber barrier, T-posts shall be installed on the side of the trench closest to construction activities. T-posts shall be installed a maximum of 8' apart for fences over 30 inches. T-posts shall be installed a minimum of 10' apart for fences 30" or less. In areas with high winds, T-posts should be installed a maximum of 5' apart. The Project Engineer or Project Manager will specify.
3. Wrap 14 AWG galvanized guide wire around each T-post, so the guide wire is 3" to 4" from the top of the fence. Extend the guide wire from post to post, secure and pull wire tight between posts.
4. Insert barrier (fence material) into trench against the posts.
5. At segment overlaps, overlap segments a minimum of 6". Install a T-post at the section overlap. At 10" increments up and down the post, utilizing 14 AWG galvanized wire (8" cut wire segments), tie the fence to the post. Close gaps at the ends of the fence segment by threading 16 AWG galvanized wire, closing the segments together.
6. Using E-Fence™ wire ties, connect the guide wire to the fence at 3' intervals, as illustrated in Detail A of the installation guidelines. Crimp E-Fence wire-tie loops around guide wire tightly.
7. E-Fence must be installed in continuous lengths (100 or 150 feet). Do not cut segments into shorter panels.

8. If required: install optional snake funnels as specified. Ground clearance at small opening of funnel should be at least 1.0 inch. Attach funnel to E-Fence™ with galvanized 14 AWG wire. Close all gaps. Install 1"x2"x18" wood posts on each side of funnel. Attach E-Fence™ to posts on each side of funnel with non-corrodible screws with 1 inch washers.
9. Backfill trench with native soil.

General E-Fence trenched installation (with Climber Barrier)

1. Excavate a trench a minimum of 4" wide and a minimum of 5" to 12" deep (depending on species, see Table B in specifications). The trench shall be cleared of obstructions.
2. Unless otherwise specified, T-posts shall be a minimum of 0.75 lbs/ft. T-posts shall be driven a minimum of 16" into the ground. When installing fence with climber barrier, T-posts shall be installed on the side away from construction activities (on same side as climber barrier). T-posts shall be installed a maximum of 8' apart. In areas with high winds, T-posts should be installed a maximum of 5' apart. The Project Engineer or Project Manager will specify.
3. If necessary, cut-off top of T-Posts so that top of T-Posts will be 1" below the top of E-Fence climber barrier crease.
4. For E-Fence with climber barrier, wrap 14 AWG galvanized guide wire around top of each T-post, so the guide wire is 1 to 2 inches from the top of the fence. Extend the guide wire from post to post, secure and pull wire tight at each post.
5. Insert barrier into trench against the posts and hang climber barrier over 14 AWG wire and top of T-Posts.
6. At segment overlaps – overlap segments a minimum of 6". Install a T-post at the section overlap. At 10" increments up and down the post, utilizing 14 AWG galvanized wire (8" cut wire segments), tie the fence to the post. Close gaps at the ends of the fence segment by threading 14 AWG galvanized wire, closing the segments together.
7. Using E-Fence wire-ties, connect the guide wire to the fence at 3' intervals, as illustrated in Detail A of the installation guidelines. Crimp E-Fence wire-tie loops around the guide wire tightly.
8. Create climber barrier by bending top of E-Fence at crease downward 120 degrees. Top of fence should now be pointing down towards ground. See Detail B in the E-Fence installation guidelines.
9. Install E-Fence brackets every 3 feet.
10. E-Fence must be installed in continuous lengths (100 feet). Do not cut segments into shorter lengths.
11. If required: install optional snake funnels as specified. Ground clearance at small opening of funnel should be at least 1.0 inch. Attach funnel to E-Fence™ with 14 galvanized AWG wire. Close all gaps. Install 1"x2"x18" wood posts on each side of funnel. Attach E-Fence™ to posts on each side of funnel with non-corrodible screws with 1 inch washers.
12. Backfill trench with native soil.

E-Fence no-trench installation – (Desert Tortoise only)

1. Use this configuration with Desert tortoise only for that portion of the fence where fence material cannot be trenched more 6" below existing ground level due to hard substrate.
2. Vertical height shall be 18 inches. Horizontal leg shall be 12 inches. Roll length shall be 150 feet. Unwind 30 inch wide roll to 150 feet. Bend fence material at preformed crease, 12 inches from one side. Form a 90 degree bend along entire 150 foot length of barrier panel.
3. Unless otherwise specified, T-posts shall be equipped with a spade and a minimum of 0.75 lbs/ft. Length of T-posts may be a minimum length of 5 feet. T-posts shall be driven a minimum of 30" into the ground. T-posts shall be installed on the side of the barrier with construction activities. T-posts shall be installed a maximum of 10 feet apart for fences 30" or less.
4. Tie 14 AWG galvanized guide wire between T-posts, so the guide wire is 3 to 4 inches from the top of the fence. Extend the guide wire from post to post, secure and pull wire tight at each post.
5. Locate 18 inch vertical portion of barrier (fence material) against posts so that the horizontal segment points towards animal habitat. Ensure that there is a zero to 2 inch ground clearance at the bend. Ensure that the bent horizontal portion of the fence is lying on the ground.

6. Install 6 AWG galvanized U shaped hold-down-pins (12 inches in length) 2 inches from leading edge of horizontal flap as shown on plans. Install pins on 3 foot centers.
7. At barrier segment overlaps, overlap segments a minimum of 6". Install a T-post at the section overlap. At 6" increments along the post, utilizing 16 AWG galvanized wire ties (8" cut wire segments), tie the fence to the post. Close gaps at the ends of the fence segment by threading 16 AWG galvanized wire, closing the segments together.
8. Install E-Fence ties every 3.3 feet - tie E-Fence to Guide wire.
9. E-Fence must be installed in continuous lengths (150 feet). Do not cut segments into shorter panels.

E-Fence trenched installation (Desert tortoise only)

1. Excavate a trench a minimum 12" deep. The trench shall be cleared of obstructions.
2. Vertical height shall be a minimum of 18 inches. Depth of fence should be about 12 inches, minimum 6 inches. Roll length is 150 feet.
3. Unless otherwise specified, T-posts shall be equipped with a spade and a minimum of 0.75 lbs/ft. T-posts shall be driven a minimum of 30" into the ground. T-posts shall be installed a maximum of 10' apart for fences 30" or less.
4. Tie14 AWG galvanized guide wire from T-Post to T-Post, so that the guide wire is 3" to 4" from the top of the fence. Extend the guide wire from post to post, secure and pull wire tight between posts.
5. Insert ERTEC E-Fence into trench and against the posts.
6. At segment overlaps, overlap segments a minimum of 6". Install a T-post at the section overlap. At 10" increments up and down the post, utilizing 16 AWG galvanized wire ties (8" cut wire segments), tie the fence to the post. Close gaps at the overlaps of the fence segments by threading 16 AWG galvanized wire, closing the segments together.
7. Install E-Fence ties every 3.3 feet - tie E-Fence to Guide wire. (see attached instructions for E-Fence ties)
8. E-Fence must be installed in continuous lengths (150 feet). Do not cut segments into shorter panels.
9. Backfill trench with native soil.

5.0 Maintenance:

Perform maintenance as required. Inspect areas of concentrated rainwater run-off following rainfall events and after high-wind events. Damage to the special-status-species exclusion barrier resulting from weather or the construction site vehicles, equipment, or operations shall be repaired immediately.

Split or torn segments shall be repaired with zip-ties or 16 gauge galvanized wire ties or replaced. Rills, gullies and other evidence of concentrated runoff which has undercut the SSSEB shall be corrected. Locations needing repair shall be repaired or replaced immediately after identifying the deficiency.

6.0 Method of Measurement:

Quantities of SSSES to be paid for will be determined by the linear foot measured along the centerline of the installed barrier. Where SSSES segments are joined and overlapped, the overlap will be measured as a single installed strip.

7.0 Basis of payment:

The contract price paid per linear foot for SSSES shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing the SSSES, complete in place, including trench excavation and backfill, and maintenance, as shown on the plans, and in these special provisions, and as directed by the Project Manager.

Table 1
Required Environmental Submittals: APM, MM and BO Measure Table
Exclusionary Fencing, DPV2

Preconstruction* During Construction Post Construction

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

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	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 reseeding. 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	NO	None of the construction sites which require exclusionary fencing are not located near farmland, and therefore this measure does not apply.
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: • 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	NO	There are no agricultural operations adjacent to any of the construction sites and therefore this mitigation measure does not apply.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Air Quality	MM AQ-1a	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: 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. Water the disturbed areas of the active construction sites, where CARB certified soil binders have not been applied, at least three times per day. 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. 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. 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. 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). Travel route planning will be completed to identify required travel routes to minimize unpaved road travel to each construction site to the extent feasible.	Pre-Construction and during construction	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	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	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	This measure will be implemented during construction. Off-road equipment records shall be kept in each vehicle and be available to the monitors if requested.
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	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	This measure will be implemented during construction.
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	Installation of the exclusionary fencing will not require the use of helicopters, therefore this measure doesn't apply.
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	This measure applies to the construction yards, therefore doesn't apply to the fencing.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	This measure applies to the Devers-Valley #2 alternative which is in the South Coast Air Basin. The exclusionary fencing will occur along the CR-D transmission line and therefore this measure doesn't apply.
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	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	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	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	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	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	This measure will be implemented during construction.
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	The contractor will prepare a transportation plan describing where the workers will be staged and how they will travel to the jobsite.
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	This measure applies to the CRS expansion and does not apply to the proposed construction activities.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	This plan applies to areas which are disturbed by construction activities.
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	Baseline inventories have been completed and standard weed control measures will be implemented per the guidelines established in the Project Weed Control Plan.
Biology	MM B-2b	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: 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. 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. 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 prior to when the weeds establish flowers or produce seeds.	During and post construction	Yes	Baseline inventories have been completed and standard weed control measures will be implemented per the guidelines established in the Project Weed Control Plan.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	MM B-5a	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.	Pre-construction and during construction	Yes	Preconstruction nesting bird surveys during the appropriate time of year will be required due to potentially suitable nesting habitat for some avian species; 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	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 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.	Pre-construction and during construction	No	No transplantable species were observed at any of the project construction areas.
Biology	MM B-7b	Conduct pre-construction tortoise surveys. Prior to construction, SCE shall survey the transmission line corridor for desert tortoise burrows and pallets within fourteen (14) days preceding construction. Tortoise burrows and pallets encountered within the construction zone (if any) will be conspicuously flagged by the surveying biologist(s) and avoided during all construction activities. During construction activities, SCE shall inspect under equipment and vehicles prior to moving equipment. If tortoises are encountered, the vehicle will not be moved until such animals have voluntarily moved to a safe distance away from the parked vehicle or a qualified biologist moves the tortoise. SCE shall monitor construction activities in all areas with the potential to support desert tortoise. Desert tortoises will be handled only by a FWS/CDFG permitted and authorized tortoise handler and only when necessary. New latex gloves will be used when handling each desert tortoise to avoid the transfer of infectious diseases between animals. Desert tortoises will be moved the minimum distance possible within appropriate habitat to ensure their safety. In general, desert tortoises will not be moved in excess of 1,000 feet for adults and 300 feet for hatchlings. Desert tortoises that are found above ground and need to be moved will be placed in the shade of a shrub. All desert tortoises removed from burrows will be placed in an unoccupied burrow of approximately the same size as the one from which it was removed. All excavation of desert tortoise burrows will be done using hand tools, either by, or under the direct supervision of, an authorized tortoise handler. If an existing burrow is unavailable, an authorized tortoise handler will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original burrow. Desert tortoises moved during inactive periods will be monitored for at least two days after placement in the new burrows to ensure their safety. An authorized tortoise handler will be allowed some judgment and discretion to ensure that survival of the desert tortoise is likely. If desert tortoises need to be moved at a time of the day when ambient temperatures could harm them (less than 40 degrees F or greater than 90 degrees F), they will be held overnight in a clean cardboard box. These desert tortoises shall be kept in the care of an authorized tortoise handler under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes will be appropriately discarded after one use. All desert tortoises moved will be marked for future identification. An identification number using the acrylic paint/epoxy covering technique should be placed on the fourth costal scute. No notching would be authorized.	Pre-construction and during construction	Yes	Preconstruction desert tortoise surveys are required around Towers 2242 and 2243.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	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	Compensation for impacts for desert tortoise habitat is identified in the Project Habitat Restoration and Compensation Plan. The Letter of Credit was previously submitted to the CPUC.
Biology	MM B-7d	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. 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. 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.	During and Post construction	Yes	All of the sites are within modeled or critical habitat for fringe-toed lizard. Compensation for impacts to fringe-toed lizard habitat is identified in the Project Habitat Restoration and Compensation Plan. The Letter of Credit was previously submitted to the CPUC.
Biology	MM B-7e	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: • 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	There is no suitable habitat for California gnatcatchers. Focused surveys are not required.
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	There is no occupied or suitable habitat for Stephens' Kangaroo rat and San Bernardino kangaroo rat. Focused surveys are not required.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	Focused surveys have been completed. Coachella Valley milk-vetch observed at Towers 2015, 2016, 2018, 2019, 2020, and 2110.
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	Preconstruction surveys will be conducted to ensure impacts to sensitive plant and wildlife species are minimized to the maximum 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	Biological monitoring will be conducted to ensure compliance with the Project conservation measures.
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	WEAP training is required for all field personnel working on the Project.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	MM B-9d	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. • 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	Preconstruction surveys will be conducted.
Biology	MM B-9e	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: 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. 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. 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.	Pre-construction and during construction	Yes	Suitable habitat for burrowing owls is located at Towers 2020, 2100, 2200, 2202, 2204 and 2240. Preconstruction surveys will be conducted.
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	Applies to locations on BLM or Forest Service land where bighorn sheep breeding or lambing may occur. This measure is not applicable.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	No	There is no suitable habitat for badgers onsite.
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	Applies to locations near rocky areas, caves, or old mines. No suitable areas for bat roosting is located onsite.
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	Yes	Suitable habitat for Coachella Valley round-tailed squirrel is present at towers 2110, 2126, 2200, 2202, 2204, and 2240.
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	The project construction work areas are not within the WRMSHCP.
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	The project construction work areas are not within the WRMSHCP.
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).” • 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	No	This measure applies to construction towers.
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	Applies to locations that support desert tortoise. Raven control methods are outlined in the Project USFWS biological opinion and Raven Management Plan.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	This measure is not applicable, and only applies to locations within the San Bernardino National Forest.
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	No	Not applicable. Applies to tower placement.
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	Standard weed control measures will be implemented as stated in the Project Weed Control Plan.
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	This measure will be implemented.
Biology	APM B-6	Vegetation: Avoid vehicular travel in washes to protect triple-ridged milkvetch. (SCE)	During construction	No	The construction areas do not contain suitable habitat for triple-ribbed milkvetch.
Biology	APM B-7	Vegetation/Wildlife: No activities whatever should occur in wetland areas. (SCE)	During construction	No	Not applicable, the sites are not located in wetlands.
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	No	Not applicable, the measure applies to tower sitings.
Biology	APM B-9	Vegetation: Initiate transplant efforts for *Ferocactus* and *Coryphantha* 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	No	Not applicable, the measure applies to locations that support Ferocactus and Coryphantha. No transplantable cactus were recorded at any of the proposed sites.
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	No	Not applicable, the sites are not located in a sensitive vegetation community.
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	Coachella Valley milk-vetch observed at Towers 2015, 2016, 2018, 2019, 2020, and 2110. Individual plants will be avoided to the extent feasible. Avoidance and impact minimization measures are included in the Coachella Valley Milk-vetch Avoidance and Protection Plan.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	APM B-13	Vegetation: Tower sites will be selected to allow maximum spacing of sensitive features. (BLM B‑5.8 Vegetation)	Pre-construction	No	Not applicable, applies to towers only.
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	The project areas have been evaluated and sited to minimize impacts.
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	No	Not applicable. Applies to towers.
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	Upon project completion, the sites will be rehabilitated in accordance with the Project Habitat Restoration Plan.
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	No	Not applicable. Applies to towers.
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	No	The sites are not located in riparian habitat. This measure was originally for the West of Devers project alternative that is no longer under consideration.
Biology	APM B-22	Wildlife: Avoid impact to mesquite-dominated habitats to protect crissal thrasher. (SCE)	Pre-construction and during construction	No	Not applicable, the project ares do not contain mesquite-dominated habitat.
Biology	APM B-23	Wildlife: Minimize impact to or removal of creosote bush to benefit LeConte's thrasher. (SCE)	Pre-construction and during construction	No	Not applicable, the project ares do not contain suitable habitat for LeConte's thrasher.
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	Not applicable. The sites do not contain Washington fan palm oases.
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	Not applicable. The sites do not contain mesquite hummock habitat.
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	No	Not applicable. Applies to tower construction.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	WEAP training will be provided to all field personal prior to construction.
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	Required at Towers 2242 and 2243.
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	Required at Towers 2242 and 2243. Air quality requirements restrict speeds to 15 mph on all unpaved roadways.
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	Required at Towers 2242 and 2243.
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	The measure will be implemented.
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	Required at Towers 2242 and 2243.
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	Upon project completion, the sites will be rehabilitated in accordance with the Project Habitat Restoration Plan.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	APM B-34	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. In the Coachella Valley, compacted soils should be scarified and seeded with a mix of native plant seeds, including bugseed (*Dicoria canescens*), to promote revegetation of plant species valuable to the lizard. 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)	During construction and post construction.	Yes	The measure will be implemented during construction.
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	Required at Towers 2242 and 2243.
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	Yes	Exclusionary fencing material is temporary and will be removed upon project completion.
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	Not applicable. The sites are not located in suitable habitat for California gnatcatcher.
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	The measure is not applicable. The sites are not located in suitable habitat for least Bell's vireo. This measure applied to the west of Devers alternative that is not longer part of the project.
Biology	APM B-39	Wildlife: Stephens’ kangaroo rat habitat would be avoided, where possible.	Pre-construction and during construction	No	The measure is not applicable. The sites do not contain suitable habitat for Stephen's kangaroo rat.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	MM (SEIR) B-8b	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: 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. The Plan shall be reviewed and approved by the CPUC at least 60 days prior to construction.	Prior to start of construction	No	This measure applies to the CRS expansion and does not apply to the proposed construction activities.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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. If sufficient acreage (in accordance with the ratios below) is not available, SCE shall enhance or restore marginal MFTL habitat. Requirements and performance standards of each of these options is described below. Acquisition of Compensatory Habitat Compensation lands shall be purchased in fee or in easement in whole or in part, at the following ratios: □ 3:1 mitigation for direct impacts to stabilized and partially stabilized sand dunes (approximately 8 acres or final acreage permanently impacted by the Project footprint plus any permanent disturbance areas required for moving accumulated sand); and □ 0.5:1 mitigation for indirect impacts to stabilized and partially stabilized sand dunes (1,365 acres indirectly impacted by the Project, including indirect impacts of moving accumulated sand). If compensation lands are acquired, SCE shall provide funding for the acquisition in fee title or in easement, initial habitat improvements, and long-term maintenance and management of the compensation lands. The compensation lands for direct impacts (at a 3:1 ratio) must be stabilized and partially stabilized sand dune habitat. 1. Criteria for Compensation Lands: The compensation lands selected for acquisition shall: a. Provide suitable habitat for Mojave fringe-toed lizards, and, aside from the minimum amount of stabilized and partially stabilized sand dunes described above, may also include sand drifts over playas or sandy Sonoran creosote bush scrub; b. Be within the Chuckwalla Valley with potential to contribute to Mojave fringe-toed lizard habitat connectivity and build linkages between known populations of Mojave fringe-toed lizards and preserve lands with suitable habitat; c. Be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation; d. Provide quality habitat for Mojave fringe-toed lizard that has the capacity to regenerate naturally when disturbances are removed; e. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible; f. Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration; g. Not contain hazardous wastes that cannot be removed to the extent the site is suitable for habitat; h. Not be subject to property constraints (i.e. mineral leases, cultural resources); and i. Be on land for which long-term management is feasible. 2. Security for Implementation of Mitigation: SCE shall provide financial assurances to the CPUC, BLM, and CDFG to guarantee that an adequate level of funding is available to implement the acquisitions and enhancement of Mojave fringe-toed lizard habitat as described in this condition. Financial assurance can be provided to the CPUC and CDFG in the form of an irrevocable letter of credit, a pledged savings account or another form of	Prior to start of construction	No	This measure applies to the CRS expansion and does not apply to the proposed construction activities.
Biology	BO-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	The designated FCR is Mark Cochran. His contact information is 520-960-4058.
Biology	BO-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	This measure will be implemented during construction.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	The project does not include construction of yards or helicopter assembly areas.
Biology	BO-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	This measure will be implemented during construction.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	BO-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	WEAP training will be provided to all field personnel prior to construction.
Biology	BO-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 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	Baseline inventories have been completed and standard weed control measures will be implemented per the guidelines established in the Project Weed Control Plan.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	Yes	This measure will be implemented during construction.
Biology	BO-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	The project areas do not contain modeled or habitat SKR habitat. Therefore this measure doesn't apply.
Biology	BO-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	The project areas do not contain modeled or habitat SKR habitat. Therefore this measure doesn't apply.
Biology	BO-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	The project areas do not contain modeled or habitat SKR habitat. Therefore this measure doesn't apply.
Biology	BO-21	No fuel modification will be conducted in suitable habitat.	During Construction	No	The project areas do not contain modeled or habitat SKR habitat. Therefore this measure doesn't apply.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	BO-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	The project areas do not contain modeled or habitat SKR habitat. Therefore this measure doesn't apply.
Biology	BO-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	Yes	This measure will be implemented during construction.
Biology	BO-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	Yes	The biologist have been previously approved by the BLM.
Biology	BO-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	Yes	The milk-vetch found during the surveys will be avoided.
Biology	BO-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 ×2 = 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=155or 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	Yes	The Letter of Credit was previously given to the CPUC.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	BO-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	Yes	This measure will be implemented during construction.
Biology	BO-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	Yes	This measure will be implemented during construction.
Biology	BO-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	Yes	This measure will be implemented during construction.
Biology	BO-30	~~To partially offset the impacts of permanent and temporary/long-term losses of fringe-toed The security will be in the amount of $415,000 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. Even if the security is provided, SCE must complete the required acquisition, protection and transfer of all lands and record the required conservation easements, deed restriction, or other protection measures no later than 18 months after the start of ground disturbing activities. lizard habitat, SCE will acquire at least 35.61 ha (88 ac) of fringe-toed lizard habitat. The compensation ratio will be 2:1 for permanent and temporary/long-term impacts to fringe toed lizard modeled habitat [7.28 ha (18 ac) of impact ×2 = a total of 14.57 ha (36 ac)] and critical habitat [10.52 ha (26 ac) of impact ×2 = a total of 21.04 ha (52 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 fringe-toed lizard habitat with equivalent function and value. The replacement habitat is intended to benefit the population of fringe-toed lizard adversely affected by the project; therefore, replacement habitat to offset impacts to fringe-toed lizard modeled habitat will be located within or adjacent to priority conservation areas in the CVMSHCP with comparable or better habitat value and habitat acquired for impacts to fringe-toed lizard critical habitat will be located within designated critical habitat with comparable or better habitat value. The BLM, Service, and CDFG will coordinate to reach mutual agreement on the selection and ownership/management of acquired lands. If critical habitat for fringe-toed lizard is not available from willing sellers, alternative compensation lands of equivalent or better habitat function and value in modeled habitat will be considered. 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 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. Lands purchased will be transferred in fee title to CDFG, a CDFG approved non-profit organization qualified pursuant to California Government Code section 65965, or other government entity with either a conservation easement , deed restriction, or other protective measures (as approved by BLM and CDFG) over those lands. If lands are transferred to CDFG, SCE will reimburse CDFG for reasonable	During Construction	Yes	The Letter of Credit was previously given to the CPUC.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	BO-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 ×2 = 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	Yes	The Letter of Credit was previously given to the CPUC.
Biology	BO-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	No	The construction schedule is dictated by the fringe-toed lizard active season, therefore this measure doesn't apply.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	BO-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	No	The proposed project includes installation of a fence, and road berms are not anticipated.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-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	This measure will be implemented during construction.
Biology	BO-42	Raven Control Plan. SCE will implement a Raven Control Plan (RCP) to minimize avian predation on tortoise for the 30-year life of the proposed project. 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 effectiveness of this conservation measure will be reviewed by SCE, the BLM, Service, and CDFG on an annual basis in order to develop appropriate adaptive measures for DPV2 for the next breeding season. The frequency and type of surveys implemented may increase or decrease depending on survey results and the effectiveness of the monitoring and removal. SCE will implement adaptive management measures after consultation with the Service based on the effectiveness of conservation measures. Nest monitoring and removal,	Post Construction	No	The Raven Control Plan will be implemented post construction. Since the fencing is temporary, it does not fall under the requirements listed in the project raven control plan.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	BO-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. Lands purchased outside of the CVMSHCP area will be transferred in fee title to CDFG, a CDFG-approved non-profit organization qualified pursuant to California Government Code section 65965, or other government entity with either a conservation easement , deed restriction, or other protective measures (as approved by the BLM and CDFG) over those lands. If lands are transferred to CDFG, SCE will reimburse CDFG for reasonable expenses incurred during title and documentation review, expenses incurred from other state agency reviews, and	During Construction	Yes	This measure will be implemented. The Letter of Credit was previously submitted to the CPUC.
Biology	BO-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	No	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
Biology	BO-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	No	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
Biology	BO-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	No	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	BO-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	No	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
Biology	BO-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	No	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
Biology	BO-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	No	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
Biology	BO-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	No	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
Biology	BO-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	No	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
Biology	BO-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	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
Biology	BO-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	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
Biology	BO-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	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Biology	BO-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	No	This measure pertains to post-construction operations and maintenance phase activities and not for temporary fencing.
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	The towers requiring exclusionary fencing have been previous surveyed area for the DPV2 Project (Eckhardt et al. 2011). The report has been submitted to the agencies under separate cover from this NTP. Three isolates are located within the proposed work area (P33--13564, -13566, and -13568).
Cultural and Paleontological	MM C-1b	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. 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). 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.	Pre-construction and during construction	No	No eligible Historic Properties are located within the exclusionary fencing Area of Potential Effect (APE).

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Cultural and Paleontological	MM C-1c	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. 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. 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. 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. 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 is approved by BLM, and dissemination of reports to local and State repositories, libraries, and interested professionals. The BLM will retain ownership of artifacts collected from BLM managed lands. The Applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The HPTP shall specify that archaeologists and other discipline specialists conducting the studies meet the Secretary of the Interior's Standards (per 36 CFR 61).	Pre-construction and during construction	No	Per section XII.A, XII.A.1 and XII.A.1.a ..." some construction-related activities, those listed in stipulation XII.A.1 below, would be allowed to proceed in those portions of the Undertaking's APE where cultural studies have been completed and where no adverse effect to Historic Properties has been found."
Cultural and Paleontological	MM C-1d	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.	Pre-construction, during and post construction	No	Three isolates are located within the APE. Isolates are not eligible to the National Register of Historic Places (NRHP). Data recovery is not required.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Cultural and Paleontological	MM C-1e	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. 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.	Pre-construction and during construction	Yes	A monitoring plan and plan of discovery has been developed for the exclusionary fencing (Williams 2011).
Cultural and Paleontological	MM C-1f	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: • 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	A cultural/paleontological WEAP has been submitted and accepted by the CPUC. This WEAP training will be required for all construction personal prior to the installation of the exclusionary fencing.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	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	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	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	The exclusionary fencing will be located within the previously paleontological inventory area for the DPV2 Project (CH2M Hill 2010) and have been submitted to the agencies under separate cover from this NTP.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	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 curation 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	No	The exclusionary fencing is located within the previously paleontological inventory area for the DPV2 Project (CH2M Hill 2010) and have been submitted to the agencies under separate cover from this NTP. The fencing will not be installed deep enough to encounter Paleontological resources.
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	No	The installation of the exclusionary fencing will not reach excavation depths that are likely to encounter paleontological resources and therefore a paleontological monitor is not required.
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	No	The installation of the exclusionary fencing will not reach excavation depths that are likely to encounter paleontological resources and therefore, do not require data recovery.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Cultural and Paleontological	MM C-4e	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: • 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	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.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Cultural and Paleontological	MM C-5a	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. 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. 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.	Pre-construction and post construction	No	No NRHP-eligible properties are located within the proposed exclusionary fencing.
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	Where feasible, project components have been moved to avoid cultural resources. No construction activities will take place until all mitigation measures are implemented.
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	All cultural inventory has been completed under BLM ARPA permits and Filed Work Authorization.
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	This NTP 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	Vehicles and equipment will remain outside of all ESA. ESA will be monitored to ensure compliance.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	NO	This measure is addressed through the Project-wide Desert Pavement Plan. According to the Desert Pavement Plan, desert pavement was not found at the sites proposed for exclusionary fencing. Therefore this measure is not applicable.
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	NO	A geotechnical report is not required for non-engineered items such as exclusionary fencing, therefore this measure doesn't apply.
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	A geotechnical report is not required for non-engineered items such as exclusionary fencing, therefore this measure doesn't apply.
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	This mitigation measure does not apply to the exclusionary fencing project areas because the fencing is temporary structure.
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	This mitigation measure does not apply to the exclusionary fencing project areas because the fencing is not located near any quarry operations.
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	This mitigation measure does not apply to the exclusionary fencing project areas because the fencing is temporary structure.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	This mitigation measure does not apply to the exclusionary fencing project areas because the project areas are not located near any quarry or mining operations.
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	Exclusionary fence is a temporary structure and therefore this measure doesn't apply.
Geology, Mineral Resources and	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	This measure does not apply because the fencing does not require construction of transmission towers.
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	NO	This measure does not apply because the fencing does not require construction of transmission towers.
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	NO	This measure does not apply because the fencing does not require construction of transmission towers.
Geology, Mineral Resources and	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	NO	This measure does not apply because the fencing does not require construction of transmission towers.
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	NO	This measure does not apply because the exclusionary fencing project areas do not require helicopter assisted construction.
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	This measure does not apply because the fencing does not require construction of transmission towers.
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	NO	This measure does not apply because the fencing does not require construction of transmission towers.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	NO	The project activities include soil disturbance for installation of a fence 24 inches below grade. A SWPPP has been developed to stabilize the site during construction and prevent erosion.
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 dips, 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	NO	No new access roads are required for the exclusionary fencing activities, therefore this measure doesn't apply to the project.
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	The project will include the excavation of soil to install fencing 24 inches in the ground. The site will be stabilized with BMPs described in the SWPPP.
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	Minimal grading will be required to install the exclusionary fencing. The site will be stabilized with BMPs described in the SWPPP.
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	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-inchcable 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	NO	This measure does not apply because the fencing does not require construction of transmission towers.
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	The exclusionary fencing work areas are not located near any active mining operations.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	NO	This measure does not apply because the fencing does not require construction of transmission towers.
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	NO	This measure does not apply because the fencing does not require construction of transmission towers.
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	NO	No new access roads are required for installation of exclusionary fencing.
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	YES	Installation of fencing will disturb a minimal amount of soil. A SWPPP has been developed to address potential erosion at each construction area.
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	NO	Installation of the exclusionary fencing will not require diversion dikes. A SWPPP has been developed to address any potential soil erosion around each construction area.
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	This measure will be implemented post construction.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	NO	The construction areas are not adjacent to any flowing channels.
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	A SWPPP is being prepared and will be incorporated into the construction bidding specifications.
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	NO	This measure does not apply because the fencing does not require construction of transmission towers.
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	NO	This measure does not apply because the fencing does not require construction of transmission towers.
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	NO	The project areas are relatively flat and do not require diversion dikes.
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	This measure will be implemented during construction.
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	NO	The project includes temporary fencing and does not include ditches are drainage conourses, therefore this measure doesn't apply.
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	NO	Fencing will not require cut and fill, therefore this measure doesn't apply.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	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 Bain 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	This measure is required for the CRS Expansion and therefore doesn't apply.
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: • location within the Colorado River Substation (CRS) site; • proximity to existing wells (private and/or municipal); • estimated total depth, well screen depth, diameter, and estimated yield; and • 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	This measure is required for the CRS Expansion and therefore doesn't apply.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Hydrology and Water Resources	MM (SEIR) H-7b	Groundwater Monitoring and Reporting. Prior to issuance of construction permits and prior to any groundwater pumping activities, a Groundwater Monitoring and Reporting Plan (Plan) shall be prepared by a Certified Hydrogeologist (CHG) and submitted by the Applicant (SCE) to the California Public Utilities Commission (CPUC) for review and approval. The Plan shall provide detailed methodology for monitoring background and site groundwater levels, water quality, and flow. Monitoring shall be performed during pre-construction, construction, and project operation with the intent to establish pre-construction and project-related groundwater level and water quality trends that can be quantitatively compared against observed and simulated trends near the project pumping well(s). During pre-construction monitoring, it shall be determined whether groundwater can be pumped from above the Colorado River accounting surface of 234 feet above mean sea level (amsl). If it is not possible to verify that groundwater for the Proposed Project would be exclusively pumped from above the Colorado River accounting surface, then Mitigation Measure H-7c (Water Supply Plan for Use of Colorado River Water) would be required. The monitoring wells shall include locations up-gradient, lateral, and down-gradient of all project supply wells and a minimum of three offsite down-gradient wells. Water quality monitoring shall include annual sampling and testing for Total Dissolved Solids (TDS), which include minerals, salts, and metals dissolved in water. Water quality samples shall be drawn from project supply wells, one up-gradient well, and a minimum of two down-gradient offsite wells. The Plan shall include a schedule for submittal of both quarterly (construction only) and annual (operations) monitoring data reports by the Applicant to the CPUC. During the project construction period, quarterly water level monitoring data reports shall be submitted to CPUC for review and approval. In addition, for at least the first 5 years of the project from the initiation of project construction, annual summary reports shall also be submitted to CPUC for review and approval. At a minimum, these annual summary reports shall include: • Daily usage, monthly range, and monthly average of daily water usage in gallons per day; • Total water used on a monthly and annual basis in acre-feet; • Summary of all water level and water quality data; and • Identification of trends that indicate potential for offsite wells to experience deterioration of water level or water quality. Based on the results of the quarterly and annual trend analyses during the first 5 years of the project from the initiation of project construction, the Applicant shall determine if the project pumping has resulted in water level decline of 5 feet or more below the baseline trend at nearby private wells. If drawdown of 5 feet or more occurs at off-site wells, the Applicant shall immediately reduce groundwater pumping until water levels stabilize or recover, sustaining drawdown of less than 5 feet. Alternatively, the Applicant shall provide compensation to the well owner, including reimbursement of increased energy costs, or deepening the well or pump setting. After the first 5 years of project, the Applicant and CPUC shall jointly evaluate the effectiveness of the Groundwater Monitoring and Reporting Plan and determine if monitoring frequencies, laboratory testing program, or procedures should be revised or eliminated. The Applicant shall file an annual “Notice of Extraction and Diversion of Water” with the State Water Resources Control Board in accordance with Water Code Sections 4999 et seq. The Applicant shall include a copy of the filing in the annual compliance report. The report will allow the CPUC to review submitted data monitoring reports for compliance. Following review and approval of the fifth annual summary report, the CPUC will determine whether groundwater wells surrounding the project site are affected by project activities in a way that requires additional mitigation and, if so, shall determine what measures are needed.	Pre-construction	NO	This measure is required for the CRS Expansion and therefore doesn't apply.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Hydrology and Water Resources	MM (SEIR) H-7c	Water Supply Plan for Use of Colorado River Water. If pre-construction groundwater monitoring conducted in compliance with Mitigation Measure H-7b (Groundwater Monitoring and Reporting Plan) indicates that groundwater pumping for the Proposed Project would draw water from below the Colorado River accounting surface of 234 feet above mean sea level (amsl), the Applicant (SCE) shall undertake one or more of the activities identified below to mitigate project impacts to flows in the Colorado River. These activities shall result in replacement of water used by the project over the life of the project. Measures of water conservation should be considered in the following order of priority: □ Payment for irrigation improvements in Palo Verde Irrigation District (PVID); □ Purchase of water allotments within the Colorado River Basin that will be held in reserve; □ Use of tertiary treated water; □ Implementation of water conservation programs in the floodplain communities of the Chuckwalla Valley Groundwater Basin, the Palo Verde Mesa Groundwater Basin, and/or Colorado River; and/or □ Participation in the U.S. Bureau of Land Management's (BLM) Tamarisk Removal Program. If the Applicant has filed an application to the U.S. Bureau of Reclamation (USBR) to obtain an allocation of water from the Colorado River, these allocations can be used to satisfy some or all of the water offsets needed to comply with this condition on an acre-foot per acrefoot basis. Use of any other options for water offsets will require the Applicant to demonstrate to the satisfaction of CPUC that the appropriate amounts of water will be conserved. The activities proposed for mitigation will be outlined in a Water Supply Plan that will be provided to the CPUC for review and approval prior to the onset of groundwater pumping at the project site. The Water Supply Plan shall include the following at a minimum: □ Identification of water offset activities and associated water source(s) to replace the quantity of water diverted from the Colorado River over the life of the project on an acre-foot per acre-foot basis; □ Demonstration of the Applicant's legal entitlement to the water or ability to conduct the activity; □ Include a discussion of any needed governmental approval of the identified activities, including a discussion of whether that approval that requires; □ Discuss whether any governmental approval of the identified activities will be needed, and, if so, whether that additional approval will require compliance with CEQA or NEPA; □ Demonstration of how water diverted from the Colorado River will be replaced for each identified activity; □ An estimated schedule of completion for each identified activity; □ Performance measures that would be used to evaluate the amount of water replaced by each identified activity; □ Monitoring and Reporting Plan outlining the steps necessary and proposed frequency of reporting to show that each identified activity is achieving the intended benefits and replacing Colorado River diversions; and □ If the application for allocation from the Colorado River is accepted by the USBR, the Applicant shall submit to the CPUC for their approval, a copy of a water allocation from the Colorado River issued by the appropriate agency. The Applicant shall implement the activities reviewed and approved in the Water Supply Plan in accordance with the agreed upon schedule in the Water Supply Plan. If	Pre-construction	NO	This measure is required for the CRS Expansion and therefore doesn't apply.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Land Use	MM L-1a	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: 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. 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. 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.	Pre-construction and during construction	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 construction area. 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	The construction areas are not located on Agua Caliente land, and therefore this measure does not apply.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Land Use	MM L-1e	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. • 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 Gorgonio Memorial Park • Desert Lawn Memorial Park • Banning Municipal Airport • Grandview Baptist Church	Pre-construction	NO	None of the facilities listed in the mitigation measure are near the construction areas, and therefore this mitigation 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	NO	The measure does not apply because there will not be any widening of existing access roads.
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	This mitigation measure does not apply, because the construction areas are not within an open pit gravel operation.
Noise	MM N-1a	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: • 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. 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 repetitive construction tasks.)	During construction	YES	This measure will be implemented during construction.
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	Project construction will comply with local noise ordinances or would obtain a variance . The measure will be implemented during construction.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	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	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	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	This measure will be implemented during construction.
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	NO	The construction areas do not occur on historically farmed land, therefore this measure doesn't apply.
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	This measure will be implemented during construction.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	NO	The project areas will not contain 1,320 gallons of hazardous materials, therefore this measure doesn't apply.
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	NO	This measure does not apply because fencing will not require construction of transmission towers.
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	NO	This measure does not apply because fencing will not require construction of transmission towers.
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	NO	This measure does not apply because fencing will not require construction of transmission towers.
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	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	This measure is addressed through the Project-wide Construction Screening Plan.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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: • 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	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	NO	This measure is addressed through the Habitat Restoration and Compensation Plan, and will be addressed post construction.
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	NO	This measure is addressed through the Habitat Restoration and Compensation Plan, and will be addressed post construction.
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	NO	This measure is addressed through the Habitat Restoration and Compensation Plan, and will be addressed post construction.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Visual	MM V-3a	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: • 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 reconductored 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	NO	This measure does not apply because fencing will not require construction of transmission towers.
Visual	MM V-6a	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: specification, and 11”x17” color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture 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) a detailed schedule for completion of the treatment a procedure to ensure proper treatment maintenance for the life of the project. 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.	Pre-construction	NO	A Surface Treatment Plan is required for permanently ancillary facilities. The fencing is temporary, therefore this measure does not apply.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Visual	MM V-6c	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. 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: • 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	NO	A Permanent Lighting Plan is required for permanently ancillary facilities. The fencing is temporary, therefore this measure does not apply.
Visual	MM V-40a	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. 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.	Pre-construction and during construction	NO	This measure does not apply because the fencing will not require construction of transmission towers.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Visual	MM V-40b	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: In all areas: • 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). In mid-slope areas (as defined by SBNF): • 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. At ridge crossing and mid-slope (as defined by SBNF): • 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	This measure does not apply because fencing will not require construction of transmission towers.
Visual	MM V-40c	Reduce visual contrast of towers and conductors near the Pacific Crest Trail. For towers located south of I-10 and outside of the SBNF, the following provisions apply: • 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	This measure does not apply because fencing will not require construction of transmission towers.
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	NO	This measure does not apply because fencing will not require construction of transmission towers.
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	NO	This measure does not apply because fencing will not require construction of transmission towers.
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	NO	This measure does not apply because fencing will not require construction of transmission towers.
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	NO	The fencing do not require improvements or new access roads.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
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	NO	This measure does not apply because fencing will not require construction of transmission towers.
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	NO	This measure does not apply because fencing will not require construction of transmission towers.
Visua —	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	NO	This measure does not apply because fencing will not require construction of transmission towers.
Visua —	APM V-8	Non-specular conductors would be used to reduce glare and resulting visual contrast.	Pre-construction	NO	This measure does not apply because fencing will not require construction of transmission towers.
Visua —	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	NO	This measure does not apply because fencing will not require construction of transmission towers.
Visua —	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	NO	This measure does not apply because fencing will not require construction of transmission towers.
tion	MM WR-1a	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. 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	Pre-construction and during construction	NO	This measure is addressed through the Project-wide Construction Notification Plan. The fencing locations do not impact recreational areas addressed in the measure therefore this measure doesn't apply.
Wilderness and Recreation	MM WR-1b	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.	Pre-construction	NO	This measure is addressed through the Project-wide Construction Notification Plan. The construction areas are not located in proximity to the PCT, therefore this measure does not apply.

Resource Area	MM/APM	Measure	Timing	Required for Exclusionary Fencing	Comments
Wilderness and Recreation	MM WR-3a	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. 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	Pre-construction	NO	This measure does not apply because fencing does not require construction of transmission towers.