BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

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In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY (U338E) for a Permit to Construct Electrical Facilities with Voltages between 50 kV and 200 kV: Fogarty Substation Project	)	Application No. 07-04-028 (Filed April 30, 2007)
In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY (U338E) for a Permit to Construct Electrical Facilities with Voltages between 50 kV and 200 kV: Valley-Ivyglen 115 kV Subtransmission Line Project	)	Application No. 07-01-031 (Filed January 16, 2007)

PROJECT MODIFICATION REPORT
SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E)
AMENDED PETITION FOR MODIFICATION OF DECISION 10-08-009

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1 – INTRODUCTION

On January 16, 2007, Southern California Edison (SCE) filed Application Number (No.) 07-01-031 and a Proponent's Environmental Assessment (PEA) with the California Public Utilities Commission (CPUC) for a Permit to Construct (PTC) the Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line. On April 30, 2007, SCE filed Application No. 07-04-028 and a PEA with the CPUC for a PTC for Fogarty Substation. By ruling dated June 6, 2007, Applications No. 07-01-031 and 07-04-028 were consolidated. The applications were deemed complete by the CPUC on December 21, 2007.

On June 15, 2009, the CPUC, as Lead Agency under the California Environmental Quality Act, released a Draft Environmental Impact Report (EIR) for consideration of SCE's Valley-Ivyglen 115 kV Subtransmission Line and Fogarty Substation Project. On May 25, 2010, the CPUC released the Final EIR for the project. On August 12, 2010, the CPUC issued Decision 10-08-009 granting SCE a Permit to Construct (PTC).

Based on SCE's additional engineering review and ongoing efforts to minimize environmental impacts, SCE determined that modifications would be needed to the Valley-Ivyglen 115 kV Subtransmission Line portion of the Approved Project, and additional minor modifications would be needed to Fogarty Substation to achieve full operational capacity. SCE remained in communication with CPUC staff during SCE's post-approval evaluation process. On March 29, 2013, SCE filed a Petition for Modification and Project Modification Report (PMR) for changes to the Valley-Ivyglen 115 kV Subtransmission Line and Fogarty Substation Project (Approved Project). Following this filing, based on ongoing communication with CPUC staff and council, it was determined that SCE could request the CPUC to review the minor modifications to Fogarty Substation separately from the Valley-Ivyglen 115 kV Subtransmission Line modifications because Fogarty Substation had already been constructed and only required minor modifications to achieve full operational capacity. On March 26, 2014, SCE filed a Petition for Modification and Project Modification Report for changes to the Fogarty Substation Project as well as a Motion to Bifurcate Fogarty Substation from the Valley-Ivyglen proceedings.

Accordingly, this PMR analyzes the potential environmental impacts associated with the modifications needed for the Valley-Ivyglen 115 kV Subtransmission Line (Proposed Modifications). Construction of the Valley-Ivyglen 115 kV Subtransmission Line with the Proposed Modifications would require an additional approximately 3 months to complete. Construction activities for the Proposed Modifications would be similar to construction activities described in the Final EIR, although additional construction methods (shoofly, blasting/fracturing, and helicopter use) would be required.

The need for the Proposed Modifications resulted from the completion of additional engineering and SCE's ongoing efforts to avoid impacts to sensitive resources. As described further in *Chapter 2 – Proposed Modifications*, the rationale for the proposed modifications include, but are not limited to the following: constructability, ease of maintenance, reduction in number of pole replacements, meeting GO 95 requirements, topography constraints, reduction in impacts to jurisdictional drainages, and reduction in impacts to sensitive vegetation communities. As discussed in *Chapter 3 – Analysis of Proposed Modifications*, the Proposed Modifications will

not result in any new significant environmental impacts, or substantially increase the severity of previously identified significant impacts, as identified in the Final EIR.

1.0 PROJECT LOCATION

The Valley-Ivyglen 115 kV Subtransmission Line is located in southwestern Riverside County, and traverses unincorporated Riverside County, the City of Menifee, the City of Perris, the City of Lake Elsinore, and the Glen Ivy/Corona Lake area. A detailed description of the approved route and the proposed modifications is provided in *Chapter 2 – Proposed Modifications*. *Figure 2-1: Valley-Ivyglen Subtransmission Line Overview Map* in *Chapter 2 – Proposed Modifications* depicts the location of the proposed subtransmission line.

1.1 PROJECT COMPONENTS

The Approved Project included the construction of a new 115 kV subtransmission line to connect SCE's existing Valley Substation and Ivyglen Substation, installation of a new telecommunications line alongside the subtransmission line route, construction of the new Fogarty Substation, and improvements to the Valley Substation and Ivyglen Substation. Construction of Fogarty Substation has been completed; however, SCE is proposing additional modifications at the substation, which is described in the Fogarty Substation PMR mentioned above.

The Proposed Modifications apply to the following components:

- Valley-Ivyglen 115 kV Subtransmission Line
- Telecommunications System

Chapter 2 – Proposed Modifications describes the proposed modifications to the Valley-Ivyglen 115 kV Subtransmission Line in detail.

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Attachment 2-A: Detailed Route Map
Attachment 2-B: Construction Work Force and Equipment Requirements

2 – PROPOSED MODIFICATIONS

Southern California Edison (SCE) is proposing to modify the Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project (Approved Project) that was approved by the California Public Utilities Commission (CPUC) following preparation of the Final Environmental Impact Report (EIR). The proposed Valley-Ivyglen 115 kV Subtransmission Line Project modifications (Proposed Modifications)—by component—would include:

- Valley-Ivyglen 115 kV Subtransmission Line Design Modifications
  - Segment Realignment
  - Conversion to Underground
  - Modified Pole Span Length/Pole Height/Number
  - Additional Pole Types
  - Modified Conductor Configuration
  - Access Road Design Changes
- Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications
  - Work Area Modifications
    - Staging Areas
    - Stringing Setup Areas
    - Helicopter Operation Yards
  - Guard Structure Installation
  - Additional Construction Methods
    - Shoofly
    - Blasting/Fracturing
    - Helicopter Use
- Telecommunications System Modifications
  - Underground Installation
  - Overhead Installation

Each subsection that follows includes the location of each modification and new construction methods that are not described in the Final EIR, as well as the rationale for the Proposed Modifications.

2.1 DESIGN MODIFICATIONS TO THE VALLEY-IVYGLEN 115 KV SUBTRANSMISSION LINE

As shown in *Table 2-1: Valley-Ivyglen 115 kV Subtransmission Line Modification Summary*, SCE is proposing to modify the currently approved Valley-Ivyglen 115 kV Subtransmission Line. *Figure 2-1: Valley-Ivyglen 115 kV Subtransmission Line Overview Map* provides the location of the newly proposed Valley-Ivyglen 115 kV Subtransmission Line route and *Attachment 2-A: Detailed Route Map* provides a detailed view of the Proposed Modifications.

Table 2-1: Valley-Ivyglen 115 kV Subtransmission Line Modification Summary

Proposed Modification	Segment							
	1	2	3	4	5	6	7	8
Segment Realignment	No Change	No Change	No Change	✓	✓	No Change	✓	✓
Conversion to Underground	✓	No Change	No Change	No Change	No Change	No Change	No Change	✓
Modified Pole Span Length/ Pole Height/ Number	✓	✓	✓	✓	✓	✓	✓	No Change
Additional Pole Type	No Change	✓	✓	✓	✓	No Change	No Change	No Change
Modified Conductor Configuration	✓	✓	✓	✓	✓	✓	✓	No Change
Access Road Design Changes	✓	No Change	No Change	✓	No Change	✓	✓	No Change
Staging Areas	✓	✓	✓	✓	✓	✓	✓	✓
Stringing Setup Areas	✓	✓	✓	✓	✓	✓	✓	✓
Helicopter Operation Yards	✓	✓	✓	✓	✓	✓	✓	✓
Guard Structure Installation	✓	✓	✓	✓	✓	✓	✓	✓
Shoofly Installation	No Change	No Change	No Change	No Change	No Change	No Change	✓	No Change
Blasting/Fracturing	✓	✓	No Change	No Change	✓	✓	No Change	✓
Helicopter Use	✓	No Change	No Change	✓	✓	✓	✓	No Change

Note: Helicopter operation yards and staging areas would not be located in every segment, but helicopters would be utilized during construction of all segments.

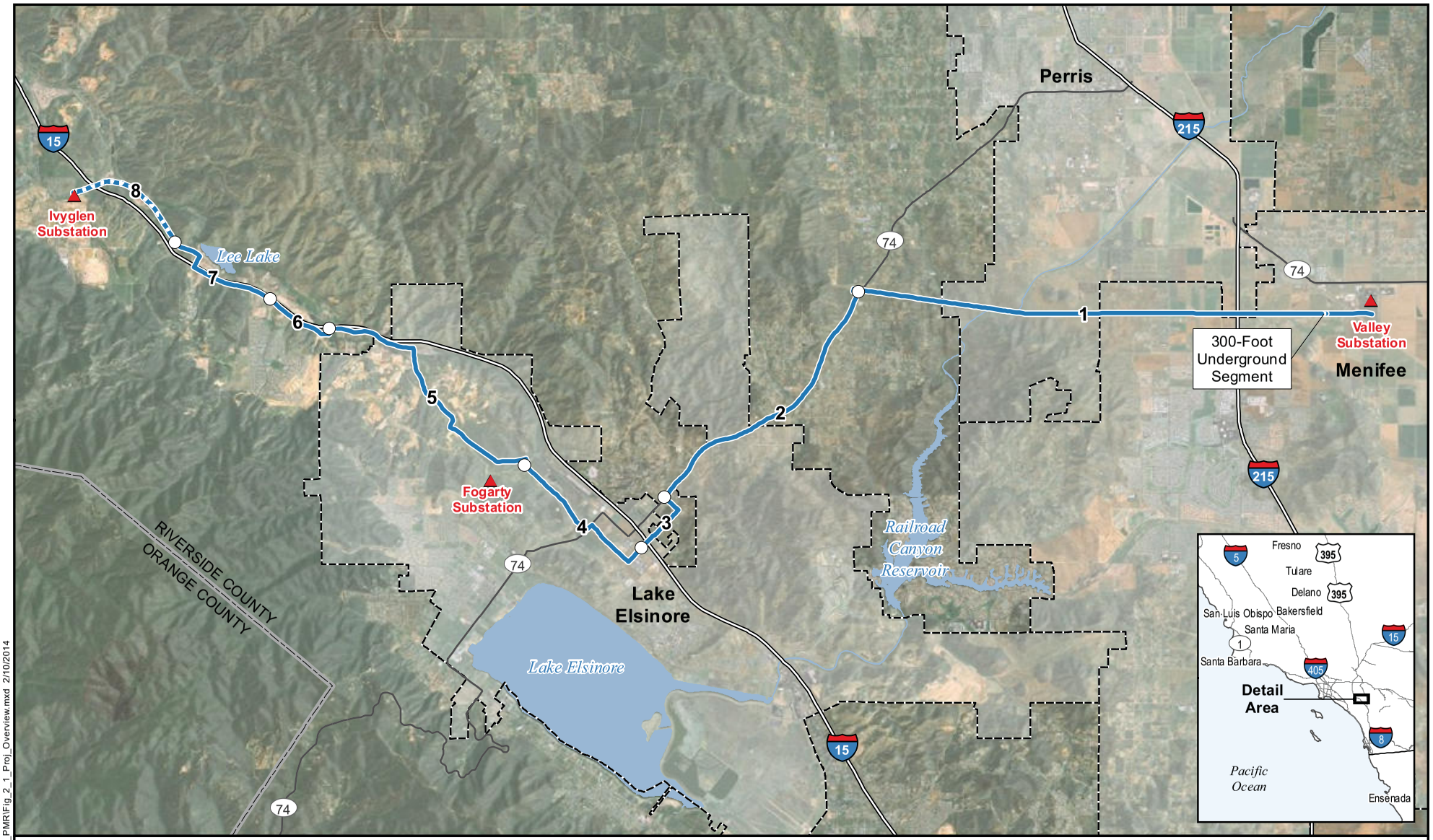

Figure 2-1: Valley-Ivyglen 115 kV Subtransmission Line Overview Map

Valley-Ivyglen 115 kV Subtransmission Line Project

- Existing Substation
- Proposed Valley-Ivyglen Route - Overhead
- Proposed Valley-Ivyglen Route - Underground
- Segment Break
- Interstate
- Highway
- City Boundary
- County Boundary

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

1:125,000

0 2 4 Miles

N

Data Sources: Insignia, 2014; SCE, 2014

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2.1.1 Approved Project Route Description

As shown in *Figure 2-1: Valley-Ivyglen 115 kV Subtransmission Line Overview Map* and *Attachment 2-A: Detailed Route Map*, the Valley-Ivyglen 115 kV Subtransmission Line is divided into eight segments, starting in the east at Valley Substation and ending in the west at Ivyglen Substation. The following subsections describe the Approved Project route segmentation.

2.1.1.1 Segment 1

The Approved Project route for Segment 1 would exit Valley Substation, located in unincorporated Riverside County, from the south and run approximately 3.9 miles west along the north side of the existing Serrano-Valley 500 kV Transmission Line right-of-way (ROW), briefly spanning the City of Perris and Interstate (I-) 215, and continue in unincorporated Riverside County until it reaches Goetz Road. From Goetz Road, the line would continue west for approximately 2.3 miles within the City of Perris, then would re-enter unincorporated Riverside County and continue west for approximately 1.2 miles until crossing State Route (SR-) 74.

2.1.1.2 Segment 2

For the Approved Project route for Segment 2, from the intersection of SR-74 and the 500 kV ROW, the line would continue parallel to the existing 500 kV ROW for approximately 0.1 mile, then turn south and span the ROW, and proceed east to the western edge of SR-74. From this point, the subtransmission line would proceed southwest along the west side of SR-74 to Conard Avenue.

2.1.1.3 Segment 3

For the Approved Project route for Segment 3, from the intersection of SR-74 and Conard Avenue, the subtransmission line would then proceed southeast along Conard Avenue from SR-74 to Third Street. It would then turn southwest and proceed along Third Street, cross over Dexter Avenue, and enter the City of Lake Elsinore. The line would continue along Third Street, span I-15, and extend to the intersection of Third Street and Collier Avenue.

2.1.1.4 Segment 4

The Approved Project route for Segment 4 would proceed from the intersection of Third Street and Collier Avenue northwest along Collier Avenue to Riverside Drive, continue for approximately 1.1 miles, and then turn southwest to Baker Street. The line would continue northeast along Baker Street to Pierce Street.

The Approved Project route for Segment 4 would require relocating a portion of the existing Valley-Elsinore-Fogarty (previously named Valley-Elsinore-Ivyglen) 115 kV Subtransmission Line from the intersection of Third Street and Collier Avenue to the intersection of Riverside Drive and Baker Street. This line would proceed along Third Street, from Collier Avenue to Pasadena Street, then turn northwest onto Pasadena Street to Riverside Drive. The line would then turn southwest onto Riverside Drive, then proceed northwest onto Baker Street until it intersects the approved Valley-Ivyglen 115 kV Subtransmission Line route approximately 0.1 mile southeast of the intersection with Pierce Street.

2.1.1.5 Segment 5

For the Approved Project route for Segment 5, from the intersection of Baker Street and Pierce Street, the line would then follow an existing 33 kV distribution line ROW to Lake Street. From Lake Street, the line would follow the Castle & Cooke proposed trail system and utility corridor—which is part of a master-planned community that Castle & Cooke is developing south of I-15—to a location just south of I-15. The line would then turn west for approximately 0.2 mile where it would cross Temescal Canyon Road. The line would follow the south side of Temescal Canyon Road for approximately 0.4 mile, cross Temescal Canyon Road, then continue on the north side of Temescal Canyon Road for approximately 0.6 mile. The line would then cross Temescal Canyon Road, proceed west for approximately 0.1 mile, cross Hostettler Road, continue along the south side of Hostettler Road for approximately 0.1 mile, then cross Hostettler Road again. The line would proceed for less than 0.1 mile before reaching the starting point for Segment 6.

The approved line would also require relocating a portion of the existing Fogarty-Ivyglen 115 kV Subtransmission Line (previously referred to as Valley-Elsinore-Ivyglen 115 kV Subtransmission Line) eastward on Lake Street between Nichols Road and Temescal Canyon Road to accommodate the approved line within the future Castle & Cooke trail and utility corridor. A second portion would also be relocated northward along Temescal Canyon Road in the proposed Castle & Cooke trail and utility corridor on the south side of I-15 between Lake Street and Bernard Street. In addition, the approved line would require relocating a portion of the existing Fogarty-Ivyglen 115 kV Subtransmission Line northward from Temescal Canyon Road to Concordia Ranch Road between Bernard Street and Love Lane.

2.1.1.6 Segment 6

The Approved Project route for Segment 6 would proceed from approximately 0.2 mile west of the intersection of Hostettler Road and Temescal Canyon Road, and follow the south side of I-15 northwest along an existing 33 kV distribution line to Horsethief Canyon Road.

2.1.1.7 Segment 7

For the Approved Project route for Segment 7, from Horsethief Canyon Road, the line would continue to follow the existing 33 kV distribution line to an existing 12 kV distribution line southeast of Indian Truck Trail. The line would cross I-15 approximately 0.3 mile southeast of Indian Truck Trail, near the existing 12 kV distribution line crossing.

2.1.1.8 Segment 8

The Approved Project route for Segment 8 would continue on the north side of I-15 between I-15 and Temescal Canyon Road, until spanning I-15 and entering Ivyglen Substation approximately 0.2 mile west of the intersection of Temescal Canyon Road and Campbell Ranch Road.

2.1.2 Proposed Segment Realignment

SCE is proposing to realign portions of Segments 4, 5, 7, and 8. Segment 4 would be realigned for constructability, ease of maintenance, and to reduce the number of pole replacements that would be required. Segment 5 would be realigned to minimize impacts to jurisdictional drainages

and reduce impacts to Additional Reserve Lands (ARLs), which have been acquired by Riverside County for conservation as part of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Segment 7 would be realigned to reduce impacts to Riversidean Alluvial Fan Sage Scrub (RAFS) vegetation communities. Segment 8 would be realigned to minimize impacts to jurisdictional drainages and potential impacts associated with several recent large landslides located between I-15 and Temescal Canyon Road. These landslides were caused by stormwater runoff draining from the upstream watershed creating substantial erosion problems to the existing abandoned railroad ROW.

The following subsections describe the locations where the Proposed Modifications segments would be realigned. *Figure 2-1: Valley-Ivyglen 115 kV Subtransmission Line Overview Map* and *Attachment 2-A: Detailed Route Map* provide the location of the Valley-Ivyglen 115 kV Subtransmission Line realignments.

2.1.2.1 Proposed Segment 4 Realignment

The proposed realignment of Segment 4 would route the new line along Third Street from Collier Avenue to Pasadena Street and would then follow the Final EIR approved relocation route for the existing Valley-Elsinore-Fogarty 115 kV Subtransmission Line, then continue to the corner of Pierce Street and Baker Street. This proposed modification would eliminate the need to relocate a portion of the existing Valley-Elsinore-Fogarty 115 kV Subtransmission Line from Collier Avenue to Pasadena Street and, as a result, would reduce the number of poles to be replaced and outage-related impacts.

In order to maintain system reliability, at the crossing of the Valley-Ivyglen 115 kV Subtransmission Line with the existing Valley-Elsinore-Fogarty 115 kV Subtransmission Line, four wood poles would be replaced with two tubular steel poles (TSPs) and two new wood poles. This crossing is located on Baker Street, approximately 0.1 mile east of Pierce Street.

2.1.2.2 Proposed Segment 5 Realignment

A portion of Segment 5 would be realigned to follow Pierce Street in a northeast direction from the intersection of Baker Street and Pierce Street toward Nichols Road (formerly Coal Road). The segment would then head north across Nichols Road and proceed westerly on its north side approximately 0.4 mile to the intersection of the existing 33 kV distribution line ROW and Nichols Road. Then, the segment would follow the existing 33 kV distribution line ROW, as identified in the Final EIR, to the intersection of Nichols Road and Alberhill Ranch Road. The line would then continue to follow Nichols Road in a franchise position to the abandoned portion of Lake Street (Old Lake Street).

According to the Alberhill Ridge Specific Plan (TTM No. 35001), approved by the City of Lake Elsinore in October 2012, Lake Street will be realigned and widened; the trail and utility corridor is depicted along the east side of the proposed Lake Street ROW. In order to construct the utility corridor, a major relocation of the Temescal Wash tributary would be required by the developer. Because the utility corridor has not been built, SCE would deviate from the future location of the utility corridor near the intersection of the Old Lake Street and Lake Street for approximately 1,200 feet, crossing Lake Street and proceeding north along the west side of Lake Street to the proposed location of the trail and utility corridor.

Another portion of Segment 5, north of the intersection of Lake Street and Temescal Canyon Road, would be realigned from the Castle & Cooke utility corridor westerly to minimize impacts to ARLs. Segment 5 would turn west near the intersection of Lake Street and I-15, cross Lake Street, then continue for approximately 0.2 mile where it crosses Temescal Canyon Road. The line would follow the south side of Temescal Canyon Road for approximately 0.3 mile, cross Temescal Canyon Road, then continue on the north side of Temescal Canyon Road for approximately 0.5 mile.

As described in the Final EIR, portions of the existing Fogarty-Ivyglen 115 kV Subtransmission Line would be rerouted to accommodate Segment 5.

2.1.2.3 Proposed Segment 7 Realignment

To minimize impacts to RAFS vegetation communities, a portion of Segment 7 would be realigned to cross I-15 approximately 500 feet southeast of the approved crossing. Once on the north side of I-15, Segment 7 would continue west along Temescal Canyon Road in a double-circuit configuration with the existing Fogarty-Ivyglen 115 kV Subtransmission Line to approximately 500 feet west of Indian Truck Trail.[1] In order to accommodate the realignment of Segment 7, four wood poles would be replaced with new wood poles along the existing Fogarty-Ivyglen 115 kV Subtransmission Line.

2.1.2.4 Proposed Segment 8 Realignment

To minimize impacts to jurisdictional drainages and potential impacts associated with several recent large landslides located between I-15 and Temescal Canyon Road, a portion of Segment 8 would be realigned underground primarily within the Temescal Canyon Road franchise. The underground installation process is discussed in *Section 2.1.3 Proposed Conversion to Underground*. New riser poles would be installed on the south side of Temescal Canyon Road approximately 0.1 mile northwest of Indian Truck Trail and on the north side of Temescal Canyon Road across from Ivyglen Substation, converting the line to an overhead configuration for entry into the substation.

2.1.3 Proposed Conversion to Underground

SCE is proposing to install portions of Segments 1 and 8 underground. Segment 1 would be installed underground in order to cross under an existing 500 kV overhead transmission line that connects Inland Empire Energy Center to Valley Substation. As described previously, Segment 8 would be relocated and installed underground to avoid impacts to jurisdictional drainages and potential landslide hazards between I-15 and Temescal Canyon Road. The following subsections describe the locations where the Proposed Modifications segments would be installed underground.

[1] To maintain reliable electrical service, for substations with only two source lines, it is SCE's practice that the two lines do not share common structures when the structures are exposed to vehicular traffic. When diverse paths are not feasible or practical, the two source lines may share common structures if TSPs are used.

2.1.3.1 Proposed Segment 1 Undergrounding

An approximately 300-foot portion of Segment 1, located approximately 0.5 mile west of Valley Substation, would be installed in new underground duct banks. Two riser poles and two subtransmission vaults would be installed along this portion of Segment 1.

2.1.3.2 Proposed Segment 8 Undergrounding

An approximately 1.9-mile portion of Segment 8, located along Temescal Canyon Road from Indian Truck Trail to Ivyglen Substation, would be installed in new underground duct banks. Two riser poles and approximately eight subtransmission vaults placed no more than 1,500 feet apart, discussed further in *Section 2.2.3 Valley-Ivyglen 115 kV Subtransmission Line Underground Installation*, would be installed along this portion of Segment 8.

2.1.4 Proposed Modified Pole Span Length/Pole Height/Number

SCE is proposing to reduce the minimum span length between poles, increase the maximum pole height, reduce the total number of light-weight steel poles (LWSPs), and increase the number of TSPs. Further design considerations, such as CPUC General Order (GO) 95 requirements and topography, have required the changes to the pole configuration and locations. The Final EIR described the span lengths between poles as 100 feet to 500 feet with an average of 200 feet. While generally correct, in several locations the span length would be reduced to approximately 80 feet in order to install overhead rack spans inside substations, and one span would be increased to approximately 1,000 feet in order to minimize impacts to jurisdictional waters and future conservation land.

The total number of LWSPs would be reduced from 620, as described in the Final EIR, to between approximately 495 and 570. In order to reduce the number of guy poles and minimize impacts to jurisdictional waters, the number of required TSPs would be increased from 45, as described in the Final EIR, to between approximately 107 and 123. The Final EIR originally described the LWSPs as being approximately 75 feet tall and the TSPs as ranging from 80 to 100 feet tall. In order to meet GO 95 clearances, the total installed height of these poles would increase in some locations as summarized in *Table 2-2: Pole Height and Quantity Changes*.

Table 2-2: Pole Height and Quantity Changes

Pole Type	Approximate Pole Length (feet)	Approximate Distributed Poles (percentage)	Approximate Total Quantity
LWSP	≤ 75	59%	495 to 570
	76 to 90	33%	
	91 to 100	6%	
	101 to 115	2%	
TSP	≤ 75	20%	107 to 123
	80 to 100	64%	
	101 to 115	15%	
	116 to 135	2%	
Wood	≤ 75	13%	8 to 9
	75 to 90	25%	
	91 to 100	63%	
Hybrid	75	75%	4
	80	25%	

Note: Preliminary pole locations are shown in *Attachment 2-A: Detailed Route Map*. Because final design has not been completed for the Project Modifications, *Table 2-2: Pole Height and Quantity Changes* includes additional poles that may be required under a worst-case scenario to construct the Project Modifications that are not depicted in *Attachment 2-A: Detailed Route Map*. SCE anticipates that the pole count and locations shown in *Attachment 2-A: Detailed Route Map* would be closer to the final design than the maximum pole counts provided in *Table 2-2: Pole Height and Quantity Changes*; however, for the purpose of assessing the worst-case environmental impacts from the Proposed Modifications, the maximum pole counts were used. The pole counts provided in *Table 2-2: Pole Height and Quantity Changes* include additional poles required to be installed on the Valley-Elsinore-Fogarty and Fogarty-Ivyglen 115 kV subtransmission lines.

2.1.5 Proposed Additional Pole Types

Further refinement of the Proposed Modifications design has required the use of three additional types of poles—hybrid poles, wood poles, and guy poles. *Figure 2-2: Hybrid Pole Typical Drawing*, *Figure 2-3: Wood Pole Typical Drawing*, and *Figure 2-4: Guy Pole Typical Drawing* depict typical views of these additional pole types, although the actual design may slightly deviate from the views depicted.

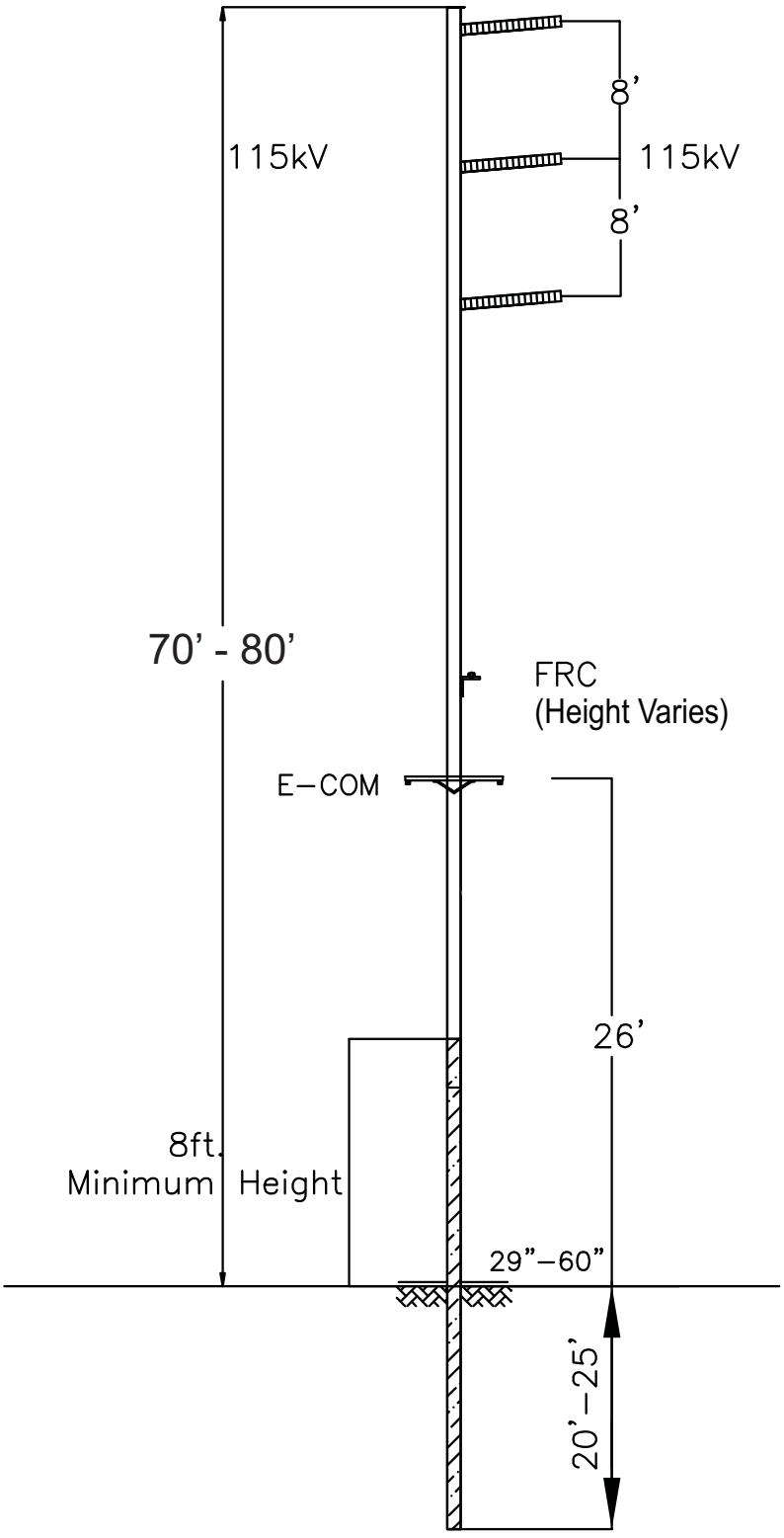

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Figure 2-2: Hybrid Pole Typical Drawing

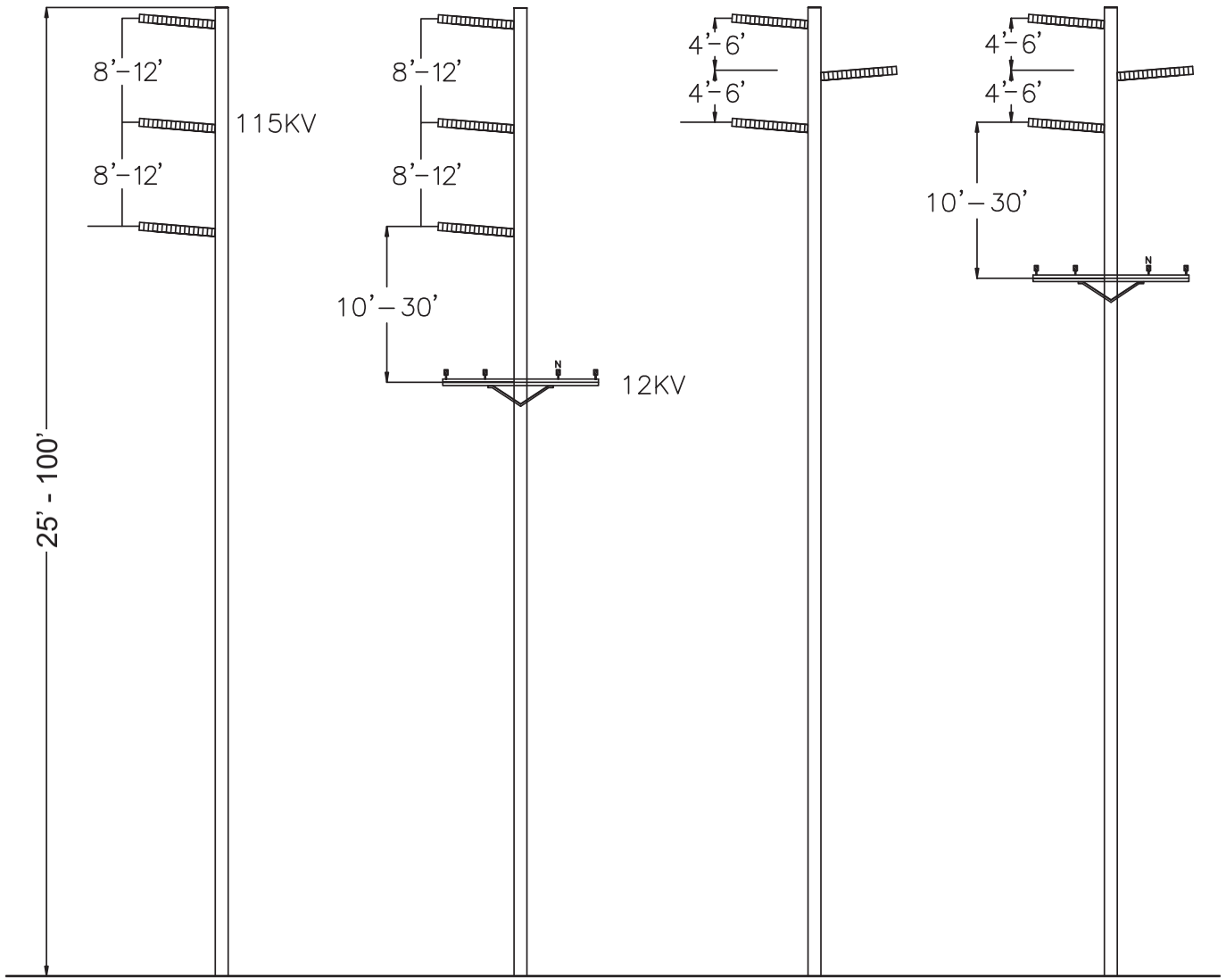

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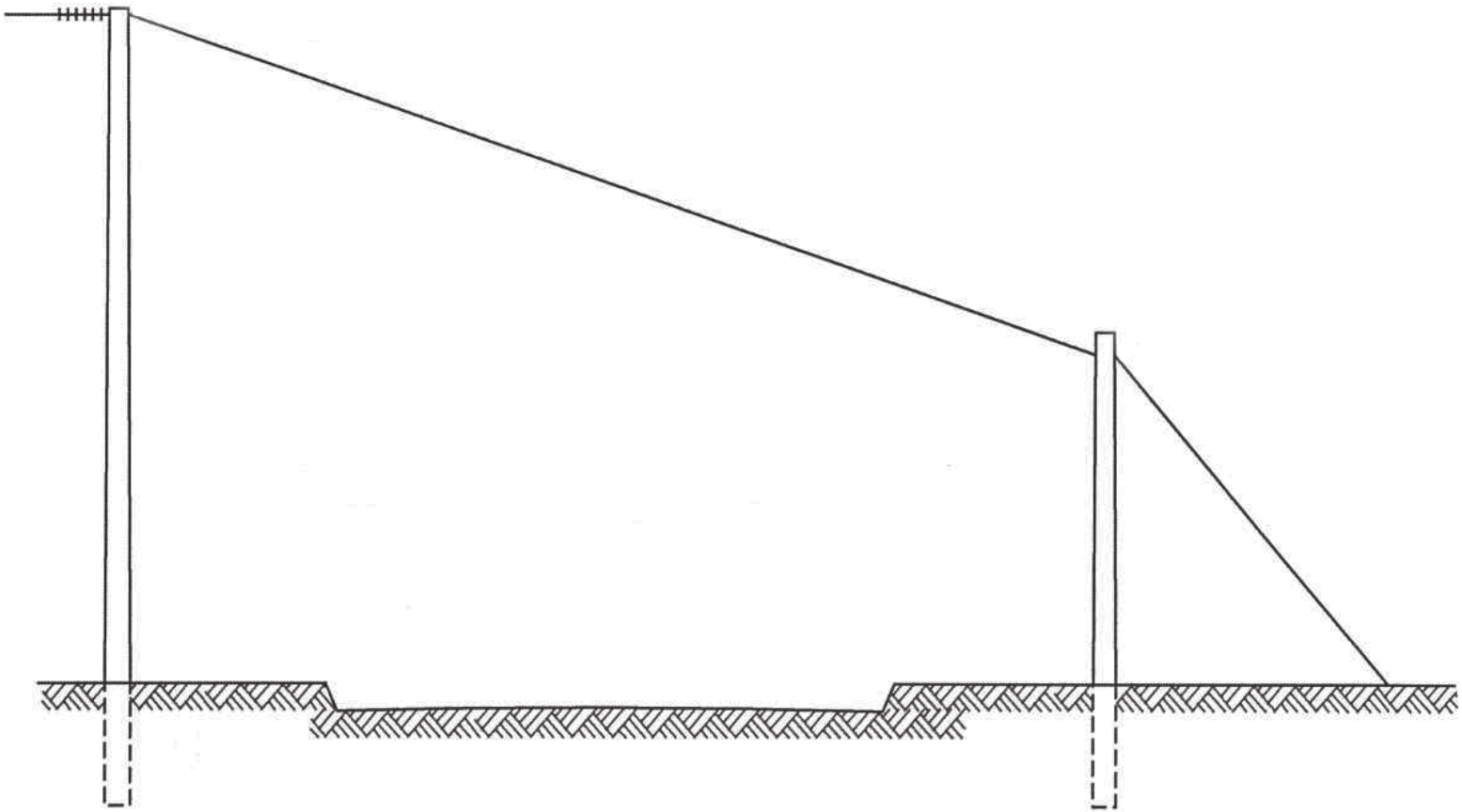
Figure 2-3: Wood Pole Typical Drawing



SPAN GUY

Overhead Guy Across Streets and Roadways

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Figure 2-4: Guy Pole Typical Drawing

2.1.5.1 Proposed Hybrid Poles

Approximately four hybrid poles would be installed on Baker Street between Riverside Drive and Turnbull Avenue in anticipation of corrosive soil conditions in this area. Using a hybrid pole in these soil conditions provides stability and protects against potential corrosion. The hybrid poles would be direct buried and would extend approximately 75 to 80 feet aboveground. The diameter of the hybrid poles would typically be 3 feet at ground level and would taper to the top of the pole. The preliminary locations of these poles are depicted in *Attachment 2-A: Detailed Route Map*.

2.1.5.2 Proposed Wood Poles

As stated above in *Section 2.1.2 Proposed Segment Realignment*, approximately four wood poles would be installed along the Fogarty-Ivyglen 115 kV Subtransmission Line in order to accommodate the realignment of Segment 7, which would minimize impacts to RAFS vegetation communities. Approximately two wood poles would be installed along the Valley-Elsinore-Fogarty 115 kV Subtransmission Line in order to accommodate the crossing of the Valley-Ivyglen 115 kV Subtransmission Line along Segment 4. The wood poles would be direct buried to a depth of approximately 9 to 11 feet below the ground surface; the overall length of the wood poles would be approximately 85 to 100 feet. The diameter of the wood poles would be approximately 1.5 to 2.5 feet at ground level and would taper to the top of the pole. The preliminary locations of these poles are depicted in *Attachment 2-A: Detailed Route Map*.

2.1.5.3 Proposed Guy Poles

Between approximately 23 and 27 guy poles would be installed along Segments 1 through 7 in locations where LWSPs require additional support. The preliminary locations of these poles are depicted in *Attachment 2-A: Detailed Route Map*.

2.1.6 Proposed Modified Conductor Configuration

SCE is proposing to install a 336.4 non-specular aluminum conductor steel reinforced (ACSR) fault return conductor (FRC) instead of the 4/0 ACSR ground conductor along the subtransmission line. A clamp attachment would bond the FRC directly to the LWSPs.

2.1.7 Proposed Access Road Design Changes

2.1.7.1 Proposed Changes to Existing Access Road Widening and Proposed New Road Construction

The Final EIR described existing and new access road widths as generally 12 feet wide, and 15 to 16 feet wide in areas with steep terrain where tight-radius curves may be required. However, due to safety concerns for construction and maintenance personnel, SCE proposes to increase the drivable width of the access roads along curves not only at steep terrain areas, but also at other key locations (i.e. turnarounds, curves, etc.).

The Proposed Modifications to access roads would encompass approximately 10.3 miles of existing roads to be widened and new access roads, as described in the Final EIR. Approximately 70 percent of the access roads (approximately 7.2 miles) would maintain the drivable width

described in the Final EIR. After further review of the access road sections described in the Final EIR for areas requiring tight-radius curves, SCE determined that approximately 30 percent of the proposed access roads (approximately 3.1 miles) would require a wider drivable width to accommodate safe operation of construction and maintenance equipment. It is anticipated that the maximum drivable width would be approximately 22 feet. When terrain would be altered for access roads (which alters existing grades), an additional two feet of drainage berm or swale may be required along each side of the access roads. The drainage berm or swale requirements would be determined during final engineering.

As stated in the Final EIR, a general area is known for most new roads, and these roads would be constructed within each route segment corridor. The specific locations of these roads, located along Segments 1, 2, 4, 5, 6, and 7, would be determined after completion of final engineering. Biological resource surveys have been conducted within these route segment corridors. Cultural resource surveys have been conducted within the majority of these route segment corridors, and supplemental surveys are underway. In areas where a spur road may be needed, the survey area was expanded.

2.1.7.2 Proposed Overland Access

Where necessary, SCE is proposing to utilize overland access from the edge of paved or dirt roads to access pole locations and temporary construction areas, such as pole work areas, stringing setup areas, and staging area locations. Overland access routes would also occur within the temporary work areas for the poles. Construction activities associated with temporary access could include vegetation clearing, blade-grading, grubbing, mowing, and re-compacting. The number of locations required would be dependent upon final engineering, topographical considerations, and availability of suitable terrain that would provide safe access for these construction activities. These access locations will not be maintained by SCE after the project construction is completed but instead utilized on an as-needed basis for operation and maintenance.

2.2 CONSTRUCTION MODIFICATIONS TO THE VALLEY-IVYGLEN 115 KV SUBTRANSMISSION LINE

Construction of the Valley-Ivyglen 115 kV Subtransmission Line would typically involve the same methods as those described in the Final EIR; however, the Proposed Modifications necessitate new and/or revised construction methods that were not discussed in the Final EIR. These methods are discussed further in this section.

2.2.1 Proposed Modifications to Pole Installation Methods for the Valley-Ivyglen 115 kV Subtransmission Line

SCE's proposed modifications to span length, pole height, and the number of poles, as described above, would involve similar construction methods as those described in the Final EIR for subtransmission line construction. However, LWSP and TSP installation require modified construction methods, as described in the following subsections.

2.2.1.1 Pole Installation

The Final EIR specified that excavations between 24 and 30 inches in diameter and 9 to 10 feet deep would be required for LWSP installation. Upon further refinement of the Proposed Modifications design, excavations for LWSPs may be up to 36 inches in diameter and 14 feet deep due to the taller poles. Additionally, LWSPs would be placed in temporary laydown areas at each pole location. While on the ground, the LWSPs may be configured (if not preconfigured) with the necessary crossarms, insulators, and wire-stringing hardware before being set in place. The Final EIR also specified that TSPs would be installed atop cylindrical concrete footings measuring a minimum of 6 feet in diameter by 22 feet deep. Based on a preliminary geotechnical evaluation, SCE proposes to increase the maximum footing depth required to support the TSPs up to approximately 60 feet in order to account for site-specific conditions such as potential scouring.

SCE has reviewed existing geotechnical reports, geologic maps, and Riverside County geographic information system data as a preliminary geotechnical evaluation for the Proposed Modifications. Further geotechnical site assessment, hydrology study, and field investigation would be conducted along the subtransmission line segments prior to the start of construction. The geotechnical studies would include soil boring and laboratory testing for the determination of engineering properties of soils, characterization of the soil and bedrock units underlying the subtransmission line, groundwater conditions, faulting and seismicity, and slope instability (landslides). The information collected would be used to determine the final design of the TSP foundations.

2.2.1.2 Removal/Transfer of Existing Structures/Facilities

As described in the Final EIR, the Pacific Clay portion of Alternative 5 (Approved Project) requires a portion of the Fogarty-Ivyglen 115 kV Subtransmission Line to be rerouted. This reroute would involve removing structures, conductor, and associated hardware. SCE proposes the following activities to remove and relocate the existing structures and conductors:

1. Road work – Where feasible, existing access roads would be used to reach structures associated with the reroute. However, some rehabilitation and grading may be necessary before removal activities begin to establish temporary equipment pads for structure removal.

2. Stringing Setup Areas – Stringing setup areas would be located at intervals of up to approximately 6,500 feet along the existing utility corridor, and would typically include locations at dead-end structures and turning points. Some of the locations used for the removal of existing 115 kV structures and conductors could be used for installation of the new 115 kV subtransmission line.

3. Conductor removal – A 1-inch pulling rope would replace the old conductor as it is removed. The rope would then be removed under controlled conditions to minimize ground disturbance, and all stringing equipment would be removed. The old conductor wire would be transported to a staging area where it would be prepared for recycling.

4. Wood Pole Removal – The existing wood poles would be completely removed once the distribution and telecommunication lines are transferred to the new poles and the new subtransmission conductors are installed. The removal would consist of the above- and below-ground portions of the pole. The holes left from removing the poles would be backfilled with spoils, which may be available as a result of the excavation for new poles, and imported fill, as needed.

Any existing distribution lines and telecommunication lines, where applicable, would be transferred to the new structures prior to removal of existing structures. Any remaining facilities that are not reused by SCE would be removed for recycling.

2.2.1.3 Topping Existing Poles

Wood poles would be removed, as discussed in the Final EIR. However, in some instances, it may be required to temporarily remove the top portion of the existing pole above the distribution level until the existing underbuilt distribution and telecommunications lines have been transferred or removed. Topping existing poles would be completed with a bucket truck and saw.

2.2.2 Existing Underground Distribution

Where required, existing underground distribution facilities would also be relocated to accommodate the placement of the new poles. The construction methods for underground distribution relocation would be similar to subtransmission line underground construction.

2.2.3 Valley-Ivyglen 115 kV Subtransmission Line Underground Installation

The following subsections describe the construction methods for installing portions of the Valley-Ivyglen 115 kV Subtransmission Line underground. SCE would secure any necessary ministerial permits from local agencies, as required for all activities associated with underground construction.

2.2.3.1 Survey

Construction activities would begin with the survey of existing underground utilities along the proposed underground subtransmission line route. SCE would notify all applicable utilities via Underground Service Alert to locate and mark existing utilities, and conduct exploratory excavations (potholing) as necessary to verify the location of existing utilities.

2.2.3.2 Trenching

The Proposed Modifications include a total of approximately 1.9 miles of new, underground 115 kV subtransmission lines and associated riser poles and support structures. An approximately 20- to 24-inch-wide by 60-inch-deep trench would be required to place the 115 kV subtransmission line underground. This depth is required to meet the minimum 36 inches of cover above the duct bank. Trenching may be performed by using the following general steps, including, but not limited to:

1. mark the location and applicable underground utilities,
2. lay out trench line,

3. saw cut asphalt or concrete pavement as necessary,
4. dig to appropriate depth with a backhoe or similar equipment, and
5. install duct bank.

The trench for underground construction would be widened and shored where appropriate to meet California Occupation and Safety Health Administration requirements. Trenching would be staged so that open trench lengths would not exceed that which is required to install the duct banks. Where needed, open trench sections would have steel plates placed over them in order to maintain vehicular and pedestrian traffic. Provisions for emergency vehicle access would be arranged with local jurisdictions in advance of construction activities.

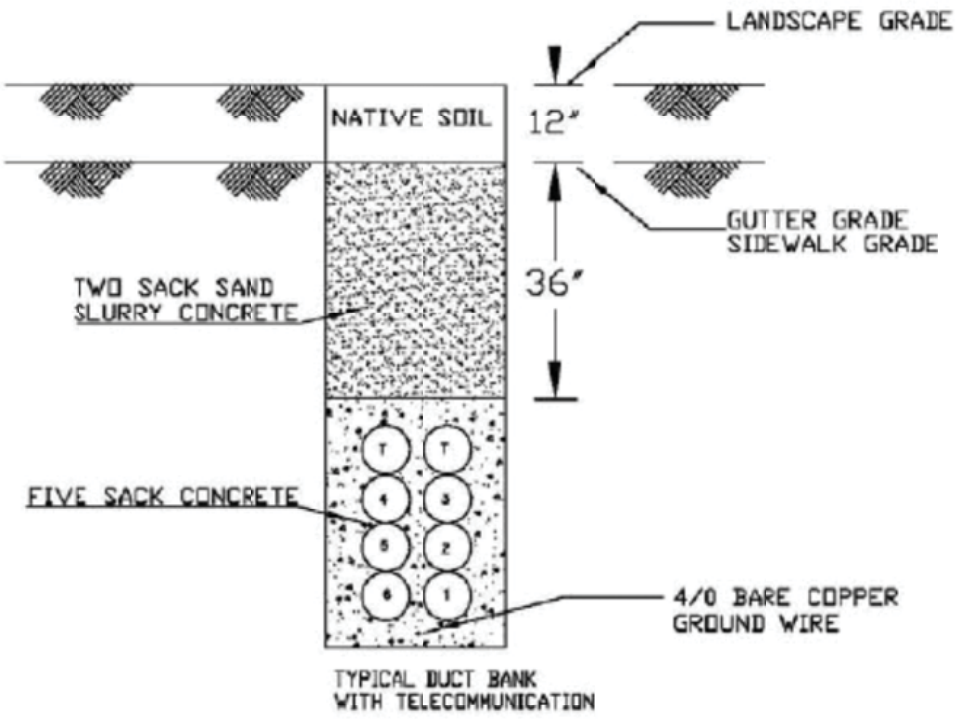
2.2.3.3 Duct Bank Installation

As trenching for the underground 115 kV subtransmission line is completed, SCE would begin to install the underground duct bank. Collectively, the duct bank is comprised of cable conduit, spacers, ground wire, and concrete encasement. The duct bank typically consists of six approximately 6-inch-diameter polyvinyl chloride (PVC) conduits fully encased with a minimum of 3 inches of concrete all around. Typical 115 kV subtransmission duct bank installations would accommodate six cables. The Proposed Modifications would utilize three cable conduits and leave three spare cable conduits for any potential future circuit pursuant to SCE's current standards for 115 kV underground construction. *Figure 2-5: Underground Duct Bank Typical Drawing* provides a typical drawing for standard duct bank configuration.

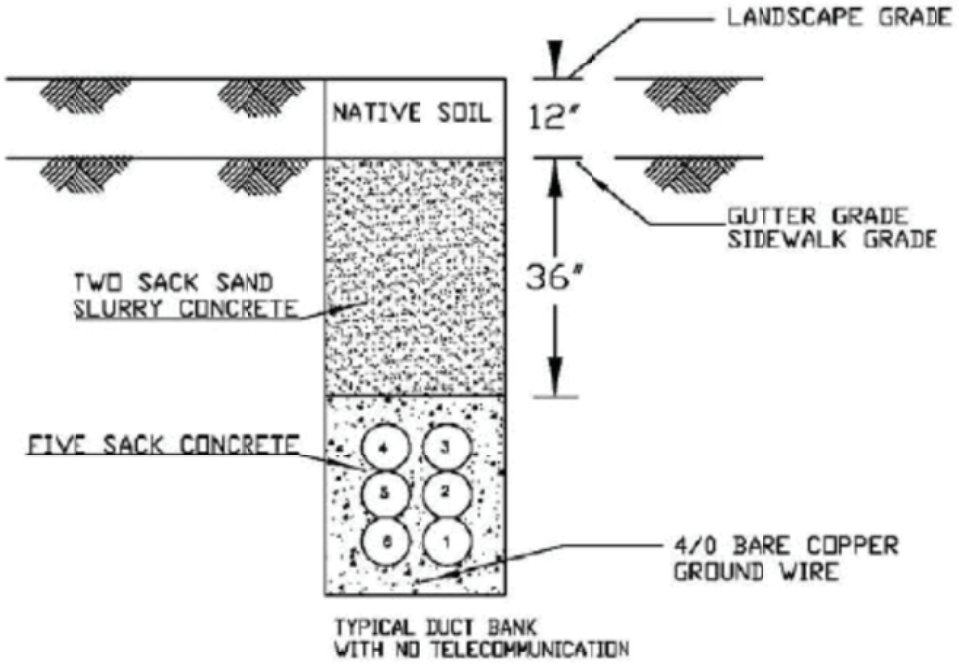
The majority of the duct banks would be installed in a vertically stacked configuration and each duct bank would be approximately 21 inches high by 20 inches wide. In areas where underground utilities are highly congested, or in areas where it is necessary to fan out the conduits to reach termination structures, a flat configuration duct bank may be required. However, it is not anticipated that a flat underground duct bank configuration would be required for the Proposed Modifications.

In instances where a subtransmission duct bank would cross or run parallel to other substructures that operate at normal soil temperature (e.g., gas lines, telephone lines, water mains, storm drains, or sewer lines), a minimal radial clearance of 6 inches for crossing and 12 inches for paralleling these substructures would be required, respectively. Where duct banks cross or run parallel to substructures that operate at temperatures significantly exceeding normal soil temperature (e.g., other underground transmission circuits, primary distribution cables, steam lines, or heated oil lines), additional radial clearance may be required. Clearances and depths would meet requirements set forth within Rule 41.4 of CPUC GO 128.

Once the duct bank has been installed, the trench would be backfilled with a two-sack sand slurry mix. Excavated materials would be disposed of at an off-site disposal facility in accordance with all applicable laws. Should groundwater be encountered, it would be pumped into a tank and disposed of at an off-site disposal facility in accordance with all applicable laws as well.



TYPICAL DUCT BANK
WITH TELECOMMUNICATION



TYPICAL DUCT BANK
WITH NO TELECOMMUNICATION

NOT TO SCALE

Figure 2-5: Underground Duct Bank Typical Drawing

2.2.3.4 Vault Installation

Vaults are below-grade concrete enclosures where the duct banks terminate. The vaults are constructed of prefabricated steel-reinforced concrete and designed to withstand heavy truck traffic loading. The inside dimensions of the underground vaults would be approximately 10 feet wide by 20 feet long with an inside height of 9.5 feet. The vaults would be placed no more than 1,500 feet apart along the underground portion of the subtransmission source line. Initially, the vaults would be used as pulling locations to pull cable through the conduits. After the cable is installed, the vaults would be utilized to splice the cables together. During operation, the vaults would provide access to the underground cables for maintenance, inspections, and repairs.

Installation of each vault would typically take place over a 1-week period, depending on soil conditions. First, the vault pit would be excavated and shored; a minimum of 6 inches of mechanically compacted aggregate base would be placed to cover the entire bottom of the pit, followed by delivery and installation of the vault. Once the vault is set, grade rings and the vault casting would be added and set to match the existing grade. The excavated area would be backfilled with a sand slurry mix to a point just below the top of the vault roof. Excavated materials, if suitable, would be used to backfill the remainder of the excavation, and any excess spoils would be disposed of at an off-site disposal facility in accordance with all applicable laws. Finally, the excavated area would be restored as required.

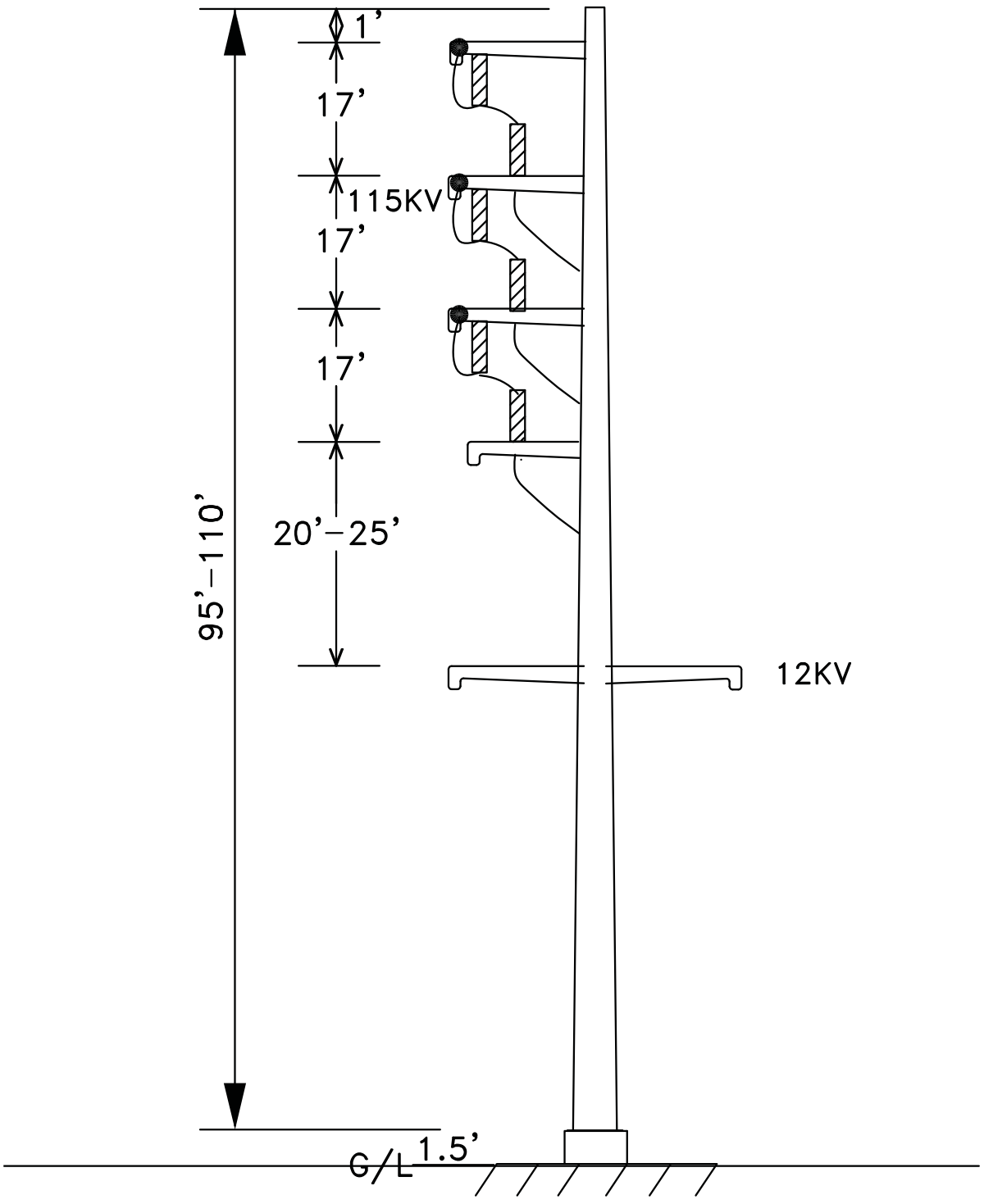
2.2.3.5 Cable Pulling, Splicing, and Termination

Following vault and duct bank installation, SCE would pull the electrical cables through the duct banks, splice the cable segments at each vault, and terminate cables at the riser poles where the subtransmission line would transition from underground to overhead. To pull the cables through the duct banks, a cable reel would be placed at one end of the conduit segment, and a pulling rig would be placed at the opposite end. The cable from the cable reel would be attached to a rope in the duct bank, and the rope linked to the pulling rig, which would pull the rope and the attached cable through the duct banks. A lubricant would be applied as the cable enters the ducts to decrease friction and facilitate travel through the PVC conduits. The electrical cables for the 115 kV subtransmission line circuit would be pulled through the individual conduits in the duct bank at a rate of two to three segments between vaults per day.

After cable pulling is completed, the electrical cables would be spliced together. A splice crew would conduct splicing operations at each vault location and continue until all splicing is completed.

2.2.3.6 Riser Pole Construction

At each end of an underground segment, the cables would rise out of the ground at riser poles, which accommodate the transition from underground to overhead subtransmission lines. Riser poles constructed as part of the Proposed Modifications would consist of engineered TSP structures. The riser pole would support cable terminations, lightning arresters, and dead-end hardware for overhead conductors. *Figure 2-6: Riser Pole Typical Drawing* provides a typical drawing of riser poles. Construction methods for these structures would be substantially similar to those described for TSP installation in the Final EIR.



NOT TO SCALE

Figure 2-6: Riser Pole Typical Drawing

2.2.4 Proposed Additional Pole Type Installation

Installation of additional pole types would involve similar construction methods as those described in the Final EIR for subtransmission line pole installation. However, the installation of hybrid poles, wood poles, and guy poles requires specific construction methods that were not described in the Final EIR.

2.2.4.1 Hybrid Pole Installation

Each hybrid pole consists of a prefabricated concrete base that would require a hole to be excavated using either an auger or a backhoe. The poles consist of separate base and top sections and may be placed in temporary laydown areas at each pole location. Depending on conditions at the time of construction, the top pole sections may come pre-configured, be configured on the ground, or be configured after pole installation with the necessary crossarms, insulators, and wire-stringing hardware. The prefabricated concrete base is then set inside the hole and the void would be backfilled with engineer-specified backfill material. In the event natural water levels exist at a level above the designed excavation depth, polymer or bentonite stabilizing agents may be required to prevent caving during the drilling process or setting of the base section. In the event that groundwater is present in the excavated hole, fluids displaced by the backfill material and pole setting process would be vacuumed into tanker trucks and disposed of at an off-site facility. When the base section is secured, the pole sections would be installed by slipping them onto the concrete base. Typically, a crane and a line truck are used for the installation of hybrid poles. The poles are set one section at a time, and once the pole is completely assembled, the sections are jacked together. Final engineering design would determine appropriate backfill material to fill the annular space around the foundation, and typically, a granular backfill or slurry backfill material is used.

2.2.4.2 Wood Pole Installation

Each wood pole would require a hole to be excavated using either an auger, backhoe, or hand tools. Excavated material would be used, as described in the Final EIR. The wood poles would be placed in temporary laydown areas at each pole location. While on the ground, the wood poles may be configured (if not preconfigured) with the necessary crossarms, insulators, and wire-stringing hardware before being set in place. The wood poles would then be installed in the holes, typically by a line truck with an attached boom.

2.2.4.3 Guy Pole Installation

Guy poles consist of an LWSP with a steel wire known as a “down guy” that attaches to an approximately 1-inch-diameter anchor at ground level, located at the back side of the LWSP, and a steel span guy that attaches to the LWSP. Guy poles would be direct buried approximately 6 to 10 feet deep and extend approximately 40 to 60 feet aboveground. The diameter of the guy poles would typically be 12 to 24 inches at ground level and would taper to the top of the pole.

2.2.5 Proposed Changes to Access Road Construction Methods

2.2.5.1 Existing Access Road Widening/New Road Construction

Construction of wider access roads would involve the same construction methods as those described in the Final EIR for the access and spur roads; however, slope stability improvements may also be required during the new access road construction, widening of existing access roads, repairing earthen slopes damaged by erosion, grading with significant cut and fill depths, and benched grading activities. It is typically preferable to use cut-and-fill slopes that are configured at slope ratios that are stable without using reinforcement. However, due to ROW limitations, sensitive resource avoidance, and existing topography, the Proposed Modifications may require the need for reinforced earthen slopes, permanent erosion control or an earth retaining system. At various locations retaining walls may be needed, and if so, it is currently estimated that the total combined length of retaining walls may be approximately 2,200 feet with an average height of 8 feet. Other slope stability systems considered include mechanically stabilized systems, along with drainage improvements (i.e., v-ditches, downdrains, energy dissipaters, etc.). The extent of slope stability improvements and earth retaining walls are determined during final engineering after site-specific geotechnical investigations and a topographic survey are performed. Blasting or fracturing may also be required in some locations and is described further in *Section 2.2.8.2 Blasting/Fracturing*.

2.2.6 Proposed Work Area Modifications

2.2.6.1 Staging Areas

Under the Final EIR, Valley Substation, Ivyglen Substation, Menifee Service Center, and Rialto Service Center were approved as staging areas for the Proposed Modifications. Upon further review, in order to localize staging areas closer to the Approved Project, SCE is proposing to remove the Rialto Service Center from the available staging areas and is proposing the addition of five new preferred staging areas: Valley Yard-South, Joe 74, Joe Yard Extension, Strawberry 74, and Orange Yard. In addition, SCE is proposing three alternate staging areas: Central 74, Chaney, and Catfish 74. A summary of these staging areas has been provided in *Table 2-3: Proposed Staging Areas*. The locations of these staging areas are described in the subsections that follow and their locations are depicted in *Attachment 2-A: Detailed Route Map*.

Preparation of the staging areas would include temporary perimeter fencing and the application of gravel or crushed rock. Land that may be disturbed at the staging areas would be restored to pre-construction conditions or to the landowner’s requirements following the completion of construction.

Table 2-3: Proposed Staging Areas

Preferred Staging Areas	Alternate Staging Areas
Valley Yard-South (5.4 acres)	
Joe 74 (approximately 3.5 acres)	Central 74 (approximately 1.6 acres)
Joe Yard Extension (approximately 2.7 acres)	Chaney (approximately 5.0 acres)
Strawberry 74 (approximately 11.0 acres)[2]	Catfish 74 (approximately 3.7 acres)
Orange Yard (approximately 11.0 acres)	

Locations

The Valley Yard-South staging area is located south of Valley Substation in the northwest corner of the intersection of Case Road and Menifee Road. The Joe 74 staging area would be located southeast of the intersection of SR-74 and Ethanac Road. The Joe Yard Extension staging area is located immediately west of the Joe 74 staging area. Central 74 staging area would be located southwest of the intersection of Central Avenue and El Toro Cut Off Road. The Strawberry 74 staging area would be located south of the intersection of Collier Avenue and Riverside Drive. The Catfish 74 staging area would be located west of the intersection of SR-74 and Riverside Drive. The Chaney staging area would be located west of the intersection of Collier Avenue and Chaney Street. The Orange Yard staging area would be located southwest of the intersection of I-15 and Horse Thief Canyon Road.

2.2.6.2 Stringing Setup Areas

SCE is proposing to increase the size of the stringing setup areas. The Final EIR described a typical stringing setup area as measuring approximately 100 feet by 50 feet. The original stringing setup areas included equipment areas, but did not include the areas that would be disturbed between the structures and equipment. In order to construct the Proposed Modifications and provide a safe operating area for construction equipment, the length of the stringing setup areas would range from 200 feet to 500 feet and the width of these setup areas would range from 34 feet to 112 feet.

Stringing setup requires level areas to allow for maneuvering of the equipment, and when possible, these locations would be located on existing roads and level areas to minimize the need for grading and cleanup. If necessary, SCE would grade the stringing setup areas; however, SCE selected stringing setup areas that would need minimal grading, if any. The land would be restored to its previous condition following the completion of pulling and splicing activities.

Locations

As described in the Final EIR, generally, the stringing setup areas would be in line with the overhead conductors, at a distance that is approximately three times the height of the pole.

[2] Strawberry 74 Staging Area would be 11.00 acres within a 26.44 acre area depicted in *Attachment 2-A: Detailed Route Map*.

2.2.6.3 Helicopter Operation Yards

SCE is proposing to add one helicopter operation yard to the Proposed Modifications—the SCE Chino Air Operations Facility. In addition, SCE may use the proposed and/or alternate staging areas described in *Section 2.2.6.1 Staging Areas*. Final siting of landing zones would be conducted with the input of the subtransmission line contractor, land management agencies, private landowners, and the helicopter contractor, as necessary. Helicopters would be used to support construction activities in areas where access is limited or where system outage constraints are a factor. Helicopters may also be used in other areas to facilitate construction, dependent upon recommendations by the installation contractor. Helicopters may originate at the existing SCE Chino Air Operations Facility or at a contractor's selected facility and fly to the staging areas. The landing zones within the staging areas would generally be flat areas that are approximately 100 feet by 100 feet. The landing zones would be restored to pre-construction conditions or to the landowner's requirements at the same time as the staging areas.

Locations

The SCE Chino Air Operations Facility is located at 7000 Merrill Avenue in Chino, approximately 18 miles northwest of the Proposed Modifications. As stated previously, the contractor may select an alternate facility in which their helicopters would originate. The locations of the proposed and alternate staging areas are described in *Section 2.2.6.1 Staging Areas*.

2.2.7 Proposed Guard Structure Installation

Typical guard structures are standard wood poles and are installed using similar methods as wood poles, which were described previously. Depending on the overall spacing of the conductors being installed, approximately two to four guard poles would be required on either side of a crossing. In some cases, the wood poles could be substituted with the use of specifically equipped boom trucks, cranes, or temporary netting could be installed at highway crossings, if required. The guard structures would be removed after the conductor is secured into place.

Locations

Guard structures are temporary facilities that would typically be installed at transportation, flood control, and utility crossings for wire stringing/removal activities. These structures are designed to stop the movement of a conductor should it momentarily drop below a conventional stringing height. SCE estimates that approximately 95 guard structures may need to be installed along the Valley-Ivyglen 115 kV Subtransmission Line.

2.2.8 Proposed Additional Construction Methods

2.2.8.1 Shoofly

In order to maintain electrical service during the construction process, an approximately 0.5-mile-long shoofly would be installed near Segment 7 along Temescal Canyon Road. A shoofly is a temporary subtransmission line that is used during construction to maintain electrical service to the area while allowing portions of the permanent line to be taken out of service, ensuring safe working conditions during construction activities. The shoofly would consist of approximately 10 wood poles and conductor installed in a similar manner as the installation of wood poles or

LWSPs, and would be removed at the completion of the Proposed Modifications as described in *Section 2.2.1.2 Removal/Transfer of Existing Structures/Facilities*.

2.2.8.2 Blasting/Fracturing

During site preparation and excavation/foundation work activities, blasting or fracturing may be required in some locations where rock is present. Prior to blasting, distances to any receptors in the area would be assessed to ensure that the blast would be engineered to be safe and effective. Pre-blast coordination and/or notification would be made to residents, utilities, and others potentially affected by blasting operations. Once coordination and notifications are complete, holes would be drilled and the explosive charges loaded into the holes. Special protective measures (e.g., gravel or blast mats) would be installed to control rock debris from the blast site. The area would be secured to avoid inadvertent entry by the public or other personnel. After the area is secured, the appropriate pre-blast warning signals would be given and the blast detonated. After detonation, a post-blast safety inspection would be conducted to ensure that the blast completely discharged and personnel may safely enter to excavate the blasted material. All blasting would be in accordance with applicable laws and regulatory requirements.

2.2.8.3 Helicopter Use

Helicopters would be used to support construction activities in areas where access is limited (e.g., no suitable access road, limited construction area to facilitate on-site structure assembly, and/or environmental constraints to access the work areas with standard construction vehicles and equipment). Helicopter usage would be based on environmental, topographic, or schedule constraints. Helicopter activities could include transportation of construction workers, delivery of equipment and materials to structure sites, hardware installation, and conductor stringing operations. Helicopters could be used in other areas to facilitate construction, dependent upon recommendations by the installation contractor.

The helicopters' operation area would be limited to the Proposed Modifications area, which includes the following:

- helicopter operation yards,
- staging areas, and
- ground locations in close proximity to stringing setup areas, including locations in previously disturbed areas near construction sites.

In addition, helicopters may need to land within SCE ROWs, which could include landing on access or spur roads. For safety and security reasons, it is also assumed that helicopters and their associated support vehicles and equipment may be based at a local airport or SCE facility at night or on off-days.

2.3 PROPOSED MODIFICATIONS TO THE TELECOMMUNICATIONS SYSTEM

SCE is proposing to install additional portions of the fiber optic cable underground and attach the overhead portions of the fiber optic cable to the poles via a wood crossarm. The Approved

Project included only approximately 300 feet of underground fiber optic cable along Temescal Canyon Road into Ivyglen Substation and depicted the overhead fiber optic cable as being attached directly to the pole. Changes to underground and overhead installation of the fiber optic cable are described in the following subsections.

2.3.1 Proposed Underground Installation

SCE is proposing to install fiber optic cable in approximately 9,997 feet of new underground conduit and 13,201 feet of existing underground conduit. The following subsections describe the locations and construction methods for the underground installation.

2.3.1.1 Locations

The following subsections describe the locations where the Proposed Modifications would be installed underground. These locations are summarized in *Table 2-4: Underground Fiber Optic Cable Installation Summary* and illustrated in *Figure 2-7: Telecommunications System Overview Map*.

Table 2-4: Underground Fiber Optic Cable Installation Summary

Segment	Approved Underground Installation Length (feet)	Approximate Proposed Underground Installation Length in New Facilities (feet)	Approximate Proposed Underground Installation in Existing Facilities (feet)
1	- -	1,445	2,531
2	- -	410	- -
3	- -	338	- -
4	- -	4,362	- -
5	- -	613	- -
6	- -	- -	- -
7	- -	1,332	- -
8	300	1,497	10,670
Total	**300**	**9,997**	**13,201**

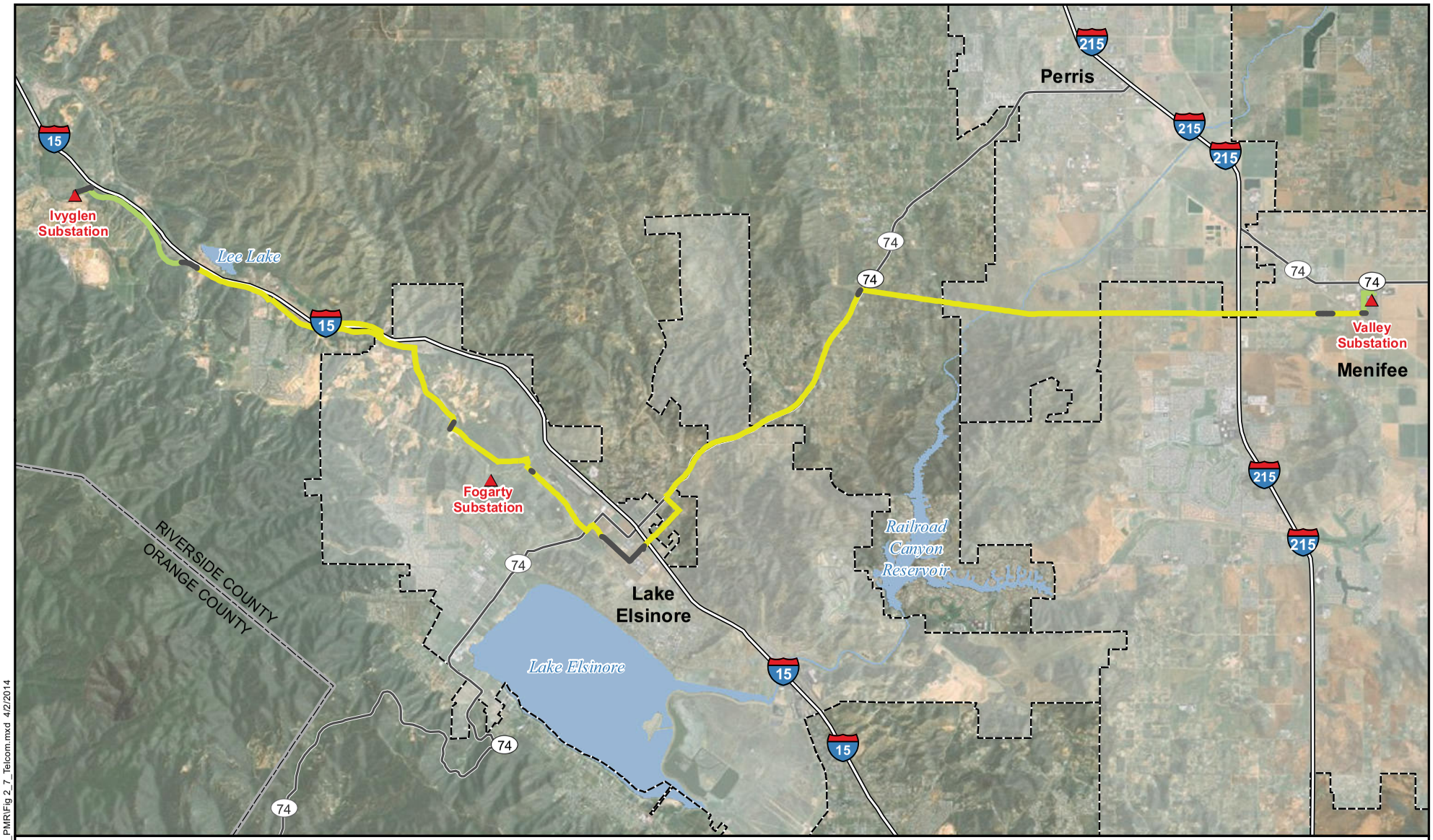


Figure 2-7: Telecommunications System Overview Map

Valley-Ivyglen 115 kV Subtransmission Line Project

- Existing Substation
- Proposed Underground Fiber Optic in new conduit
- Proposed Underground Fiber Optic in existing conduit
- Proposed Overhead Fiber Optic Cable
- Interstate
- Major Road/State Highway
- City Boundary
- County Boundary

1:125,000

0 2 4 Miles

Data Sources: Insignia, 2014; SCE, 2014

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Segment 1

Approximately 2,531 feet of fiber optic cable would be installed in an existing underground conduit within Valley Substation, and approximately 314 feet of fiber optic cable would be installed in a new underground conduit directly adjacent to Valley Substation. In addition, approximately 1,131 feet of fiber optic cable would be installed in a new underground conduit, approximately 2,200 feet west of Valley Substation, in concert with the proposed undergrounding of the Valley-Ivyglen 115 kV Subtransmission Line.

Segment 2

In order to cross under the Serrano-Valley 500 kV Transmission Line, approximately 410 feet of fiber optic cable would be installed in a new underground conduit along SR-74 from Ethanac Road to Festus Circle.

Segment 3

In order to maintain diversity, approximately 338 feet of fiber optic cable would be installed in a new underground conduit along Third Street and across Collier Avenue.

Segment 4

Since the Final EIR was issued, the City of Lake Elsinore has created an underground district along Pasadena Avenue. As a result, approximately 4,170 feet of fiber optic cable would be installed in a new underground conduit along Third Street and Pasadena Avenue from West Minthorn Street to the end of Pasadena Avenue. In addition, approximately 192 feet of fiber optic cable would be installed in a new underground conduit along Baker Street, beginning approximately 530 feet southeast of Pierce Street.

Segment 5

At Lake Street and Nichols Road, approximately 613 feet of existing underground telecommunications facilities would be relocated to accommodate the placement of the new subtransmission line poles.

Segment 7

Approximately 1,332 feet of fiber optic cable would be installed in a new underground conduit along Campbell Ranch Road from the proposed Valley-Ivyglen 115 kV Subtransmission Line I-15 crossing to an existing underground conduit beginning approximately 850 feet east of Santiago Canyon Road.

Segment 8

Approximately 10,670 feet of fiber optic cable would be installed in an existing underground conduit along Campbell Ranch Road, beginning approximately 850 feet east of Santiago Canyon Road, to Ivyglen Substation. In order to maintain diversity, an additional approximately 1,497 feet of fiber optic cable would be installed in a new underground conduit along Temescal Canyon Road from Campbell Ranch Road to Ivyglen Substation.

2.3.1.2 Construction Methods

Construction methods for underground installation of the fiber optic cable are described in the Final EIR. SCE is proposing to add stringing setup areas for installation of the telecommunications system. Typical stringing setup areas would be approximately 60 feet by 20 feet. As described for stringing setup areas for the subtransmission line, stringing setup for the telecommunications system would require level areas to allow for maneuvering of the equipment, and when possible, these locations would be located on existing roads to minimize the need for grading and cleanup. If necessary, SCE would grade the stringing setup areas; however, SCE has selected areas that would need minimal grading, if any. The land would be restored to its previous condition following the completion of pulling and splicing activities.

2.3.2 Proposed Overhead Installation

SCE is proposing to install approximately 19.9 miles of fiber optic cable on wood crossarms attached to the poles between Valley Substation and Ivyglen Substation. The wood crossarms would be approximately 5 or 10 feet by 5 inches by 4 inches. *Figure 2-8: Light Weight Steel Pole with Fiber Optic Cable Typical Drawing* and *Figure 2-9: Tubular Steel Pole with Fiber Optic Cable Typical Drawing* provide typical drawings of LWSPs and TSPs with fiber optic cable attached on wood crossarms. The locations of the overhead fiber optic cables are depicted in *Figure 2-7: Telecommunications System Overview Map*.

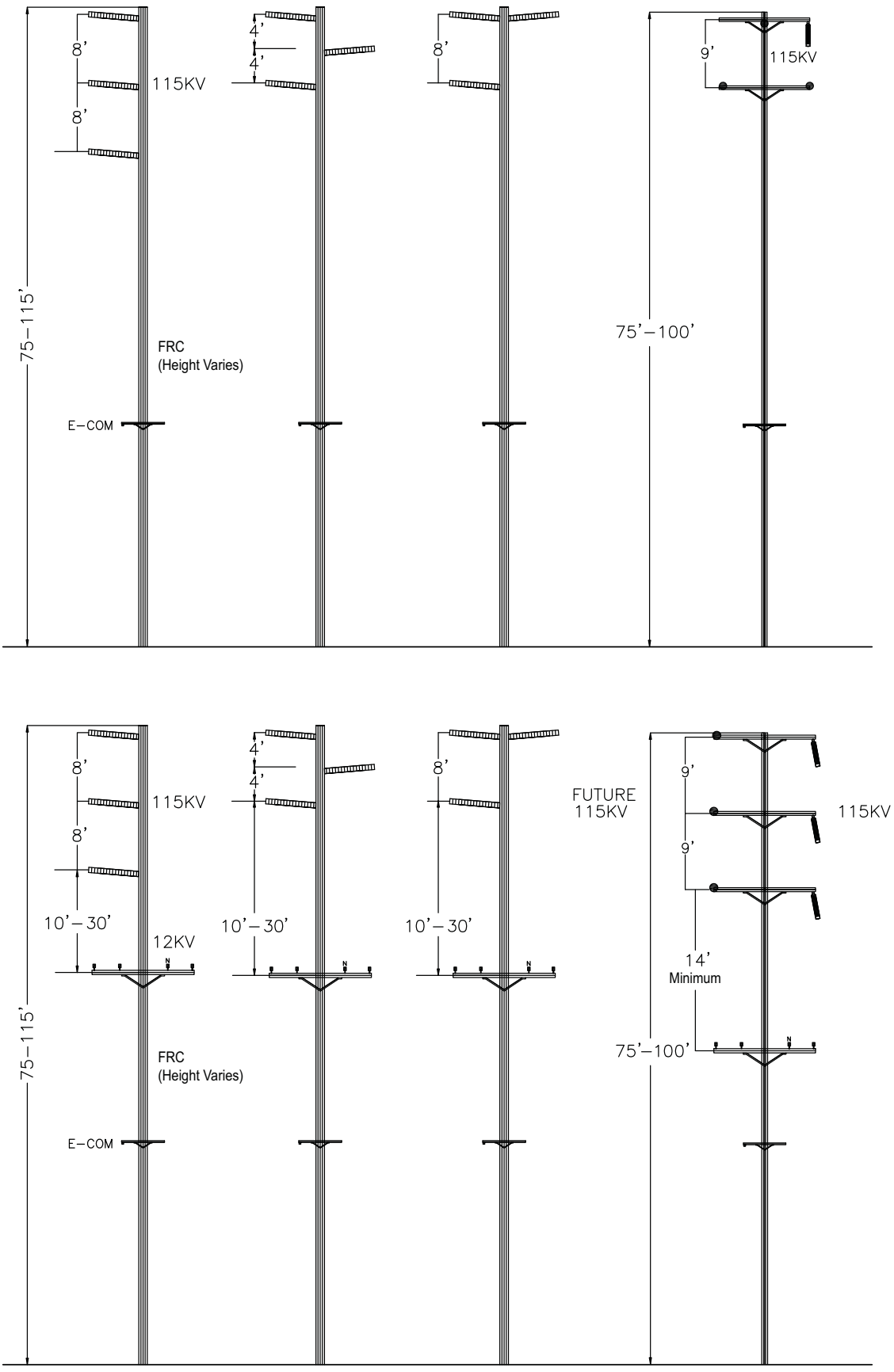

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Figure 2-8: Light Weight Steel Pole with Fiber Optic Cable Typical Drawing

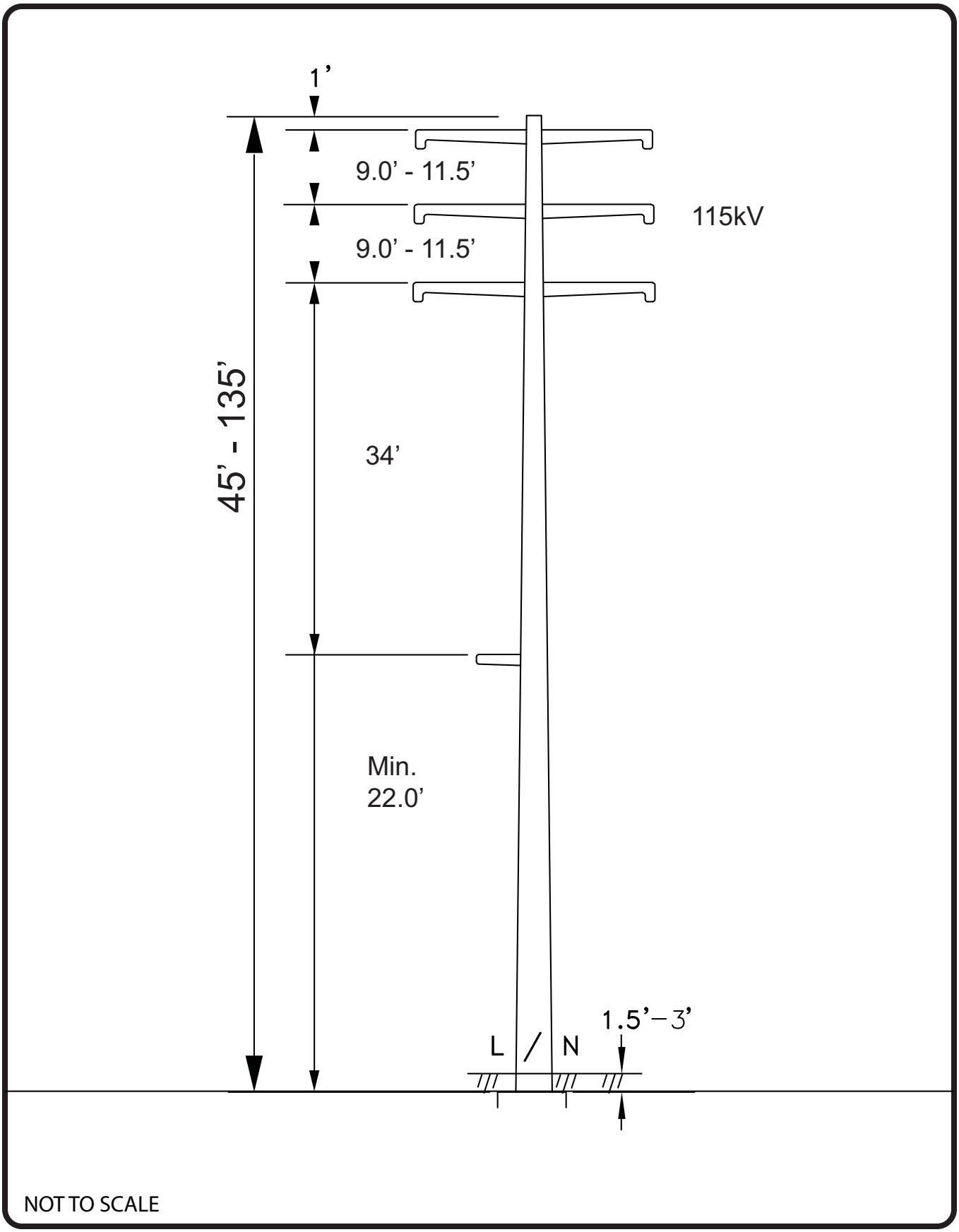

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Figure 2-9: Tubular Steel Pole with Fiber Optic Cable Typical Drawing

2.3.2.1 Locations

The wood crossarms would be installed on the poles where the fiber optic cable is not installed underground.

2.3.2.2 Construction Methods

SCE would utilize 5- or 10-foot wood crossarms and high-strength engineered dielectric suspension support blocks to attach the fiber optic cable to the new LWSPs. The suspension support blocks would be oriented vertically and attached to the crossarm. The crossarm would be attached to the pole prior to attaching the cable.

As described previously, SCE is proposing to add stringing setup areas for the installation of the telecommunications system. Typical stringing setup areas would be approximately 60 feet by 20 feet, and when possible, these locations would be located on existing roads and level areas to minimize the need for grading and cleanup. If necessary, SCE would grade the stringing setup areas; and these areas would be restored to their previous condition following the completion of pulling and splicing activities.

2.4 PROPOSED CHANGES TO CONSTRUCTION PERSONNEL AND EQUIPMENT

Construction activities for the Proposed Modifications would be similar to construction activities described in the Final EIR. SCE is proposing to increase the number of construction personnel and add additional construction equipment in order to complete the Proposed Modifications. The Final EIR estimated that approximately 30 personnel would be required to install the proposed Valley-Ivyglen 115 kV Subtransmission Line; however, SCE would require a maximum of approximately 125 personnel for construction during peak periods. *Attachment 2-B: Construction Work Force and Equipment Requirements* provides a summary of the construction personnel and equipment for the Proposed Modifications. The proposed changes are needed to allow for the flexibility to have multiple crews working simultaneously during construction.

2.5 PROPOSED CHANGES TO MITIGATION MEASURES AND APPLICANT-PROPOSED MEASURES

SCE is proposing to modify some of the MMs and applicant-proposed measures (APMs) in the Final EIR, as well as add some APMs. *Table 2-5: Proposed MM and APM Modifications* provides the modifications to the MMs and APMs, as well as a justification for the modifications.

Table 2-5: Proposed MM and APM Modifications

Modified MM or APM	Proposed Modifications (strikeout identifies deletions and underline identifies additions)	Justification
APM AES-SCE-2: Glare	To reduce the potential for reflection of sunlight from project facilities, reduce color contrasts, and visually unify the project with the surrounding characteristic landscape, the Applicant would: • Use only non-specular 954 stranded aluminum conductor (SAC) conductors. • Use light duty and tubular steel poles for the proposed subtransmission line that will weather to be non-reflective.	As described in the Final EIR, SCE would use 954 SAC conductors, which would continue to be non-specular.
APM AES-SCE-4: Ridgeline	Locate poles off of ridgelines, except in areas where an existing pole line exists, and site construction and permanent access roads such that they will be screened from view by existing vegetation.	Along Segment 6, the subtransmission line follows an existing distribution line; this distribution line maintains poles atop the hills. In this location, the subtransmission poles are proposed to be located atop the hills and span the jurisdictional waters.
MM BIO-1a: Environmentally Sensitive Areas	The Applicant shall reduce impacts to the habitat of the special status species listed in Tables D.4-2[3] and D.4-3[4] by engineering the Project so that it minimizes impacts to special status species. This can be accomplished by siting permanent project elements (i.e., roads and poles) away from known locations of special status species and communities. Environmentally sensitive areas such as rare plant populations or specific breeding habitat will be identified in the field to minimize the possibility of inadvertent encroachment using the following avoidance methods: a. A qualified botanist (i.e., a person with at least an undergraduate degree in biology, ecology, or a related field, with botany training and a minimum of 3 years' professional field experience within the region or working under the direct supervision of a professional botanist with at least 6 years of field experience in the region) will flag or otherwise mark special status plant species. Construction crews will avoid direct or indirect impacts to these flagged areas and be instructed to avoid intrusion beyond these marked areas. b. A qualified botanist will monitor the known locations of special status plant populations that might be found prior to or during the construction period. Monitoring will occur during construction and for one year following construction to assess the effectiveness of protection measures. c. The Applicant will limit removal of native vegetation communities, ~~,~~ including intact coastal sage scrub, riparian vegetation, wetland habitat, and mature trees. An onsite qualified biologist (i.e., a person with at least an undergraduate degree in biology, ecology, or a related field, with a minimum of 3 years' professional field-experience within the region or working under the direct supervision of a professional biologist with at least 6 years of field experience in the region) with local knowledge of the area will be consulted for identification, flagging of individuals or boundaries of vegetation communities (see MM BIO-2a and 2b for flagging of wetland boundaries), and assessment of sensitive vegetation habitats within the construction footprint. The biologist will provide oversight to ensure compliance of this measure. d. Temporary impacts to Riversidean Alluvial Fan Sage Scrub (RAFS) shall be restored to pre-construction conditions using species similar to those present prior to disturbance. Permanent impacts to RAFS will be mitigated pursuant to the MSHCP as determined by the MSHCP Participating Special Entity (PSE) process. This may include purchase of replacement land at a 1:1 ratio and/or restoration at a 2:1 ratio in an off-site location to be determined. All mitigation is subject to review and approval by the RCA with United States (U.S.) Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) concurrence. In the unlikely event that SCE does not to participate in the MSHCP, the project's overall restoration monitoring and reporting plan will include RAFS restoration, subject to review and approval by USFWS and CDFW. The restoration plan will include, but is not limited to, identification of responsible parties, restoration details and schedule, monitoring and maintenance, and success criteria.	SCE is proposing mitigation here for the sensitive vegetation type based on recent coordination with Riverside County Regional Conservation Authority (RCA), USFWS, and CDFW. This mitigation would ensure the project is consistent with the MSHCP.

[3] Refers to Table D.4-2: Special Status Wildlife Species Known to Occur or with the Potential to Occur within the Project Area in the Final EIR
[4] Refers to Table D.4-3: Special Status Plant Species Known to Occur or with the Potential to Occur within the Project Area in the Final EIR

Modified MM or APM	Proposed Modifications (strikeout identifies deletions and underline identifies additions)	Justification
MM BIO-1b: Special Status Plant Species	Pre-construction surveys will be conducted ~~during the appropriate blooming and precipitation period~~ by a qualified botanist for all special status plant species as defined by Table D.4-3.[5] ~~On the ground mapping of sensitive soils that are in direct association with these populations will be conducted during the pre-construction surveys.~~ The limits of populations of special status plant species shall be flagged or otherwise marked by a qualified botanist to ensure construction crews will avoid direct impacts to these populations. A minimum buffer of ~~100~~25 feet around these flagged plant populations shall be maintained to protect any special status plant seedbank that may be dormant in the sensitive soils. However, should the Applicant participate in the MSHCP as intended, avoidance, minimization, and mitigation would be handled for each plant species pursuant to the MSHCP. Some species do not require an avoidance buffer while others would be subject to mitigation in the form of a Determination of Biological or Superior Preservation (DBESP). The Applicant will also report geo-referenced special status plant locations to the ~~CDFG~~CDFW and USFWS. The Applicant will implement avoidance measures including, but not limited to, the following: • No construction work (e.g., vegetation clearing, ground disturbance) will be authorized to begin until pre-construction surveys have been completed and results submitted to the ~~CDFG~~CDFW and USFWS. • The Applicant will avoid the flagged areas and will not drive vehicles, go by foot, or place equipment or materials in any area with special status plants. • The Applicant will maintain a minimum distance of 25 feet from the flagged boundary of special status plants for equipment staging and fueling and fill stockpile areas from special status plant populations. • Overhead installation of telecommunication lines will be accomplished by crews on foot as necessary to negotiate around flagged sensitive resources. This will also occur in areas where there is no established access road within the ROW and sensitive resources have been flagged during pre-construction surveys. • Trenching to install telecommunications will be conducted a minimum of 25 feet from the flagged boundary of special status plant populations. • If special status plants are present in an area where trenching to install telecommunications or other equipment would be required to connect to an existing subtransmission structure, the Applicant will identify and connect to an alternate structure where disturbance of special status plants can be avoided. This may require the Applicant to extend the length of the trench to reach the alternate structure or to avoid underground trenching in certain areas. • TSP and line positioning and installation activities will avoid and span all flagged resources. If the Applicant cannot avoid direct and/or indirect impacts to special status plants, then as a PSE under the MSHCP, the Applicant will consult with the ~~CDFG~~CDFW, USFWS, and RCA, and follow the provisions set forth in the MSHCP, including but not limited to: 1. Submittal to the RCA of required documentation, including quantitative evaluations for the ~~Determination of Biologically Equivalent or Superior Preservation (~~DBESP~~)~~, as needed. 2. Adhering to policies and procedures in MSHCP Section 6.1.2 (Riparian/Riverine/Vernal Pool Policy), Section 6.1.3 (Narrow Endemic Plant Species Policy), and Section 6.3.2 (Additional Survey Needs and Procedures for Criteria Area Species). 3. Proposing and implementing mitigation measures developed in consultation with and approved by the ~~CDFG~~CDFW, USFWS, and RCA.	1) SCE is proposing to remove "appropriate blooming and precipitation" because the project botanist has surveyed and identified all special-status plant species in previous years and per all acceptable protocols including appropriate seasonal blooming and precipitation periods. All surveys were conducted consistent with the MSHCP requirements, and included species both covered and not covered by the MSHCP. Pre-construction surveys will serve to update the results of previously conducted protocol-level surveys, and the biologist/botanist will record all special-status plant species occurring within the area of potential disturbance. Further, it should be noted that not all plant species bloom at the same time or even near the same time annually. Each special-status plant species has an individual blooming period that varies and/or overlaps with other special-status plant species. Pre-construction surveys are generally conducted not less than 30 days prior to start of construction; meaning, if surveys for each plant species had to be conducted within the multiple appropriate blooming periods (generally spread out over the spring and summer months), it would not be possible to conduct surveys during multiple blooming periods all within one 30-day period prior to the start of construction. 2) Soils Mapping – SCE is proposing removal of the soils mapping requirement because mapping of sensitive soils was completed previously as part of the MSHCP's approval process in 2003, including its own EIR/Environmental Impact Statement. Additional soils mapping would not be expected to differ substantially from the results obtained in 2003, offering no additional value to special-status plant species. 3) Buffer Distance – Given that this measure requires a 25-foot buffer from special-status plant species during trenching, equipment staging, fueling and stockpiling, SCE is proposing that the "minimum buffer of 100 feet" be changed to a 25 feet consistent with the other references to 25 feet. If a special-status species is discovered prior to construction, implementation of the mitigation included in this measure would address any potential impacts to those species.

[5] Refers to Table D.4-3: Special Status Plant Species Known to Occur or with the Potential to Occur within the Project Area in the Final EIR

Modified MM or APM	Proposed Modifications (strikeout identifies deletions and underline identifies additions)	Justification
MM BIO-1b: Special Status Plant Species (cont.)	As specifically applies to plants covered under MSHCP policies 6.1.3 and 6.3.2, the Applicant shall implement avoidance and mitigation measures to reduce impacts on special status plant species to a less than significant level as consistent with provisions set forth in the MSHCP. Mitigation shall include a tiered approach as summarized below and any other measures determined in consultation with the ~~CDFG~~CDFW, USFWS, and RCA: 1. Avoid 90% of the plant populations with long-term conservation value found within suitable habitat within the project area. If 90% conservation cannot be maintained, then a DBESP will be prepared according to MSHCP provisions. 2. The known locations of special status plant populations within the project footprint found prior to or during the construction period will be monitored during ground disturbing construction activities by a qualified botanist. The Applicant will submit a post-construction report/technical memo to the CPUC within 60 days post-construction reporting on the effectiveness of protection measures. 3. Mitigation for impacted special status plants shall include restoration, conservation, and compensation measures, and may be on site and/or off site. As some special status plants such as Munz's onion and San Diego Ambrosia cannot be successfully salvaged and restored, mitigation shall include purchase of credits in an established mitigation bank as approved by the Resource Agencies. Expected mitigation ratios shall be a minimum of 1:1 for plant populations that are restored or conserved on site, and 2:1 for plant populations that are preserved or conserved off site. The Applicant will prepare a Habitat Mitigation and Monitoring Plan that will be submitted to and approved by the RCA and the ~~CDFG~~CDFW and USFWS prior to initiating ground disturbance activities in areas where special status plants will be impacted. The plan will outline restoration and conservation activities, locations, monitoring requirements, and criteria to measure mitigation success. 4. Conservation measures shall include preservation of portions of the impacted on-site plant populations, where possible. The Applicant will establish conservation easements within one year of construction implementation on any on-site (where possible) and off-site mitigation site(s) to protect the populations in perpetuity. In the event that SCE does not participate in the MSHCP, or if the project may impact a particular special-status plant species that is not covered by the MSHCP, SCE would implement a similar level of mitigation as would have been required by the MSHCP (i.e., as otherwise required by MM BIO-1b) to ensure that impacts to special-status plants are reduced to less-than-significant levels. Such mitigation may include, but not be limited to, restoration, conservation, and compensation measures, and may be onsite and/or offsite. It is expected that all special-status plant species and seedbank (in the topsoil) can be successfully salvaged and restored directly back into the area of disturbance after construction is completed. In the unlikely event that plants and seedbank (in topsoil) cannot be directly restored in the same area as the disturbance, mitigation shall include purchase of credits in an established mitigation bank or implementation of other mitigation strategies subject to the approval of the USFWS and CDFW. Expected mitigation ratios shall be a minimum of 1:1 for plant populations that are restored or conserved on-site, and 2:1 for plant populations that are preserved or conserved off-site. The Applicant would prepare a Habitat Mitigation and Monitoring Plan (for those special-status plants that cannot be salvaged and directly restored) that would be submitted to and approved by the USFWS and CDFW, as appropriate, prior to initiating ground disturbance activities in areas where special-status plants would be impacted. The plan would outline restoration and conservation activities, locations, monitoring requirements, and criteria to measure mitigation success.	4) On-Site Mitigation – SCE is proposing changes to requirement of "on-site mitigation" for the purpose of clarification and flexibility dependent upon the sensitive status of a given plant species. Although some impacts to paniculate tarplant are anticipated, this species is widespread throughout the area and re-establishes after disturbance. As such, mitigation would include topsoil salvage and replacement only within the same area of disturbance. No additional measures for this species should be required. SCE would coordinate with the CDFW to determine under what conditions, if any, warrant a conservation easement requirement for paniculate tarplant. Although United States (U.S.) Fish and Wildlife Service (USFWS) approval oversight is mentioned here, if the plant species potentially impacted (e.g. paniculate tarplant) is not covered by the MSHCP or is not federally listed, the USFWS may choose not to be involved. Impacts to other special-status plants are not expected, but if other such species are discovered during pre-construction surveys, this measure includes requirements to address them accordingly.

Modified MM or APM	Proposed Modifications (strikeout identifies deletions and underline identifies additions)	Justification
MM BIO-1e: Pre-Construction Nesting Bird Surveys	To avoid the impacts to active nests (with eggs or young) of any protected bird, the Applicant shall implement one of the following: a. Conduct all construction activity (including vegetation pruning or removal) during the non-breeding season (generally between August 31 and February 1) for most special status and non-special status migratory birds. b. If construction activities are scheduled to occur during the breeding season (February through August), a qualified biologist with knowledge of local wildlife resources will conduct pre-construction focused nesting surveys no more than 30 days prior to any ground disturbing activity or vegetation trimming or removal activities. These surveys shall be conducted up to a distance of 500 feet from the centerline of the subtransmission line and 500 feet from existing and new (i.e., Fogarty) substations. If active nests are found, a biological monitor with expertise in bird behavior would establish a species-specific buffer around the nest and no activities would be allowed within the buffer until the young have fledged from the nest or the nest fails. A project-specific Nesting Bird Management Strategy has been prepared to establish buffers based on, but not limited to, the following: the bird species (some species are more tolerant of disturbance while other are less tolerant), location of nest building and active nests, threshold for nesting disturbance taking into account bird behavior, including signs of agitation, continuous focused nest monitoring by qualified biologists, background noise, type of construction activity, and dust emissions and noise levels from construction. Buffers would be adjusted based on no exceedance of an established threshold of behavioral agitation and other signs indicating disruption of nesting behavior. Buffers may be increased or decreased based on the opinion of the biologist with expertise in bird behavior to ensure that impacts to nesting birds would not occur. The Nesting Bird Management Strategy establishes a communication and reporting protocol involving SCE, biological monitors, and the CPUC, CDFW, and USFWS. The Nesting Bird Management Strategy was prepared by the Project's Lead Biologist and was subject to the approval of the CDFW (pursuant to the California Fish and Game Code) and USFWS (pursuant to the Migratory Bird Treaty Act). ~~If nesting birds are located, the Applicant will maintain appropriate buffers as follows from occupied nests with all construction, operations, and maintenance activities:~~ • ~~500 feet from nesting raptors~~ • ~~250 feet from all other nesting birds~~ During active construction, the qualified biologist will monitor and assess any nesting birds within the specified buffer ranges to determine whether disturbance is impacting the birds. The qualified biologist will have the authority to halt construction in the area of disturbance impacting the birds, and will immediately contact the Applicant's Lead Biologist~~, until t~~The Applicant's Lead ~~b~~biologist will ~~can~~ notify the CPUC, USFWS and ~~CDFG~~CDFW and consult on an appropriate course of action.	SCE proposes revisions to include ongoing implementation of the Nesting Bird Management Strategy specifying protective species-specific buffers and behavioral thresholds that when implemented. The Nesting Bird Management Strategy was approved in coordination with CDFW and USFWS. The Nesting Bird Management Strategy also includes a communication and reporting protocol involving SCE, CPUC, CDFW, and USFWS. Any notification or discussion with the CPUC, USFWS, and CDFW regarding biological issues including nesting bird issues would be handled by SCE's Lead Biologist, not the field biologist.
MM BIO-1h: Noise Control	The Applicant will avoid impacts to migratory and special status bird species protected under federal or state regulations by ensuring that construction or operational noise does not exceed ~~ambient levels~~ the nest disturbance threshold and/or the noise level threshold established in the Nesting Bird Management Strategy during the general nesting period. This will be accomplished through 1) work scheduling (i.e., scheduling construction to avoid segments where occupied nests are found) and 2) having properly functioning mufflers on construction vehicles. No vehicles, chain saws, or heavy equipment will be operated within the ~~minimum exclusion zone of 250 feet~~ exclusion zones established within the Nesting Bird Management Strategy until the nesting season is over or until a qualified wildlife biologist has determined that nesting is finished and the young have fledged. If a qualified wildlife biologist determines that any particular construction, operation, or maintenance activities pose a high risk of disturbing an active nest, the biologist will halt work in the particular area of impact and/or recommend additional, feasible measures to minimize the risk of nest disturbance. If work activities are found to result in harm to nesting birds, destruction of an active nest, or nest abandonment prior to fledging, the biologist will report this to the ~~CDFG~~CDFW and USFWS.	SCE is proposing to make the noise disturbance thresholds consistent with the Nesting Bird Management Strategy discussed in MM BIO-1e: Pre-Construction Nesting Bird Surveys, addressing nesting bird issues.

Modified MM or APM	Proposed Modifications (strikeout identifies deletions and underline identifies additions)	Justification
MM BIO-2a: Wetlands Avoidance and Restoration	Before construction work will start on Project, the Applicant's qualified wetland biologist will flag the boundaries of wetland resources based on prior surveys (AMEC 2006a, AMEC 2010, Entrix 2006). The wetland biologist shall be a person with at least an undergraduate degree in biology, ecology, or a related field, with U.S. Army Corps of Engineers (USACE) training and a minimum of 3 years' professional field experience within the region or working under the direct supervision of a professional wetland biologist with USACE training and at least 6 years of field experience in the region. For vernal pool wetlands, habitat will be flagged based on the vernal pool watershed (i.e., the internal drainage into the wetland system from the surrounding watershed based on hydrographic breaks) not the wet basin. The Applicant's construction crews will not cross non-culverted drainages with vehicles, nor conduct construction activities or placement of equipment or supplies within the bed, bank, or riparian zone of any drainage, wetland, or water body. Many of the larger creeks flow through culverts beneath existing roads and will not be directly impacted. However, smaller creeks and resources may flow across the ROW and would be affected. Project infrastructure will be designed to avoid all sensitive aquatic resources, including spanning drainages and vernal pools with transmission lines. If construction activities require placement of fill, crews, or equipment in sensitive aquatic resources, or require disturbance to a riparian area or vernal pool watershed, then the Applicant will do the following: • Where avoidance of riparian and wetland areas is not feasible and work is required within jurisdictional wetlands, drainages, and other wetland habitats, or where non-culverted drainages must be crossed to access work sites, the Applicant will obtain and comply with all necessary USACE and ~~CDFG~~CDFW permits under the Clean Water Act and ~~CDFG~~CDFW 1600 regulations. A wetland delineation report will be prepared and submitted to the USACE and ~~CDFG~~CDFW for verification as part of this permit process. • Restore temporarily impacted wetlands, riparian zones, and other aquatic resources to pre-construction conditions, and monitor during and after disturbance. Include aquatic resource restoration efforts in the Habitat Mitigation and Monitoring Plan (MM BIO-1b) that will be developed as part of the regulated waters permitting and/or the DBESP that will be prepared as part of MSHCP PSE compliance for riparian/riverine impacts. ~~This~~ Any mitigation/restoration plans shall also be submitted to and approved by the RCA, USACE, USFWS, ~~CDFG~~CDFW, and the CPUC prior to initiating any mitigation activities. The plan will outline restoration and conservation activities, locations, monitoring requirements, and criteria to measure mitigation success. • Mitigate for permanent impacts on wetlands and riparian areas caused by new structures and fill activities, prior to impact activities. At a minimum, mitigation ratios will be a 1:1 ratio for wetlands and riparian areas. High quality riparian zones, as determined by a qualified wetland biologist in consultation with the CPUC and the RCA, USACE, ~~CDFG~~CDFW, and USFWS will be mitigated at a minimum of 2:1 ratio. Mitigation may include compensation and conservation of in-kind, offsite areas at a minimum ratio of 1:1.	SCE is proposing to add language to allow the crossing of some non-culverted drainages that would be necessary to construct the project. These were included as temporary impact areas in the 404, 401, and 1602 permit applications submitted for Phase 1 of the Valley-Ivyglen 115 kV Subtransmission Line Project and will be included in the associated applications for Phase 2. Pursuant to the MSHCP, mitigation requirements for riparian/riverine impacts would also be addressed through the DBESP process.
BIO-APM 15: Potential Impacts to Stephen's Kangaroo Rat	Mitigation will be implemented through payment of fees pursuant to the Riverside County Habitat Conservation Agency (RCHCA) Stephens' Kangaroo Rat Habitat Conservation Plan Agreement approved by the RCHCA on September 20, 2012 and with concurrence by USFWS and CDFW. Prior to start of construction, SCE will obtain a Certificate of Inclusion from the RCHCA for the project.	SCE proposes this APM in response to recent coordination with the RCHCA, USFWS, and CDFW which resulted in a mechanism for take coverage of Stephens' kangaroo rat.
BIO-APM 16: Potential Impacts to MSHCP Additional Reserve Lands	Temporary impacts to MSHCP ARLs will be restored to greatest extent practicable using species present prior to disturbance. Should any permanent impacts to ARL result during construction, the Applicant will dedicate biologically equivalent or superior land to the MSHCP. The Applicant will prepare an ARL equivalency analysis to be included as part of the MSHCP PSE submittal. This equivalency analysis will compare the potential effects on the ARL to the benefits of proposed replacement land, including compensation for potentially lost conservation functions and values. The analysis will consider specific project design features, siting and design, and MSHCP BMPs, as well as address effects on covered species and habitats, core areas, linkages, constrained linkages, MSHCP Conservation Area configuration and management, and ecotones. The replacement land ratio is anticipated to be not less than 2:1 within MSHCP Core 1 but will ultimately be determined through MSHCP consistency findings made by RCA, CDFW and USFWS concurrence as part of the MSHCP PSE process.	Because the project is required to be consistent with the MSHCP regardless of SCE's participation, potential impacts to ARL would need to be addressed. This would be a new impact not previously recognized or discussed in the Final EIR. SCE has developed this APM in response to recent coordination with RCA, USFWS, and CDFW.
BIO-APM 17: Potential Impacts to Wildlife Movement	In the event that retaining walls or some other method of slope stabilization would be needed, walls will be sited, designed, and oriented to minimize impacts to movement of native resident wildlife species and established wildlife corridors, in coordination with the RCA, USFWS, and CDFW.	SCE proposes the APM to minimize impacts to wildlife movement in the event that retaining walls are required. SCE has developed this APM in response to recent coordination with RCA, USFWS, and CDFW.

Modified MM or APM	Proposed Modifications (strikeout identifies deletions and underline identifies additions)	Justification
MM CUL-1a: Avoid Environmentally Sensitive Areas	Known ~~h~~Historical rResources and all prehistoric archaeological sites (California Register of Historic Resources [CRHR] Eligible or Ineligible) located within ~~the project APE~~ Area of Potential Impact (API) shall be designated as Environmentally Sensitive Areas (ESAs)~~,~~ and will include a buffer of ~~100~~ 50 feet beyond ~~historical site~~ the cultural resource boundaries to ensure avoidance. Site information is confidential; therefore, ~~site~~ cultural resource boundaries will be delineated in the ~~Cultural Resources Treatment Plan~~ Construction Phase Management Plan (~~CRTP~~ CPMP). All personnel involved in construction activities shall be instructed on how to avoid an ESA prior to construction operations. Avoidance of ESAs ~~shall~~ may be achieved by, but is not limited to, shifting the proposed subtransmission line route, by spanning the site, by not placing any new utility poles or access roads, or redesigning the footprint of a facility. ~~Design of access roads and pole locations shall result in complete avoidance of historical resources. A qualified archaeologist and/or architectural historian shall be on site to monitor all ground-disturbing work within 1,000 feet of an ESA.~~	Minimization of impacts to Historical Resources and prehistoric archaeological sites is preferred. Implementing an ESA with a 50-foot buffer will provide SCE with flexibility to adjust the construction Area of Direct Impact (ADI) to avoid negative impacts to Historical Resources and afford an opportunity to avoid all prehistoric archaeological sites (CRHR Eligible or Ineligible). In addition, construction crews will have received Worker Environmental Awareness Program (WEAP) training that will instruct the crews on how to avoid ESAs and in identifying cultural resources during construction, which will reduce the need to monitor all ground-disturbing work within 1,000 feet of an ESA. To further prevent potential impacts to cultural resources a monitoring program will be implemented (see APM CUL-1c).
MM CUL-1b: Cultural Phase Management Plan	There are resources within the Project area whose eligibility for the CRHR is undetermined due to lack of evidence. These resources may be found to be considered significant archaeological or cultural resources pending further investigation. If avoidance of these resources is not feasible, each ~~site~~ cultural resource identified ~~in the sections above~~ as having an undetermined eligibility status must be tested and evaluated by an archaeologist with the qualifications defined in MM CUL-1c. Testing and evaluation may consist of surface collection and mapping, limited subsurface excavations, and the appropriate analyses and research necessary to characterize the artifacts and deposit from which they originated, archival research, and photo documentation. Upon completion of the test level investigations for ~~sites~~ cultural resources determined to be unique archaeological sites or historical resources as set forth in CEQA Guidelines Section 15064.5, the archaeologist shall prepare recommendations for submission to the CPUC in a "~~Cultural Resources Treatment~~ Construction Phase Management Plan" (~~CRTP~~CMPM) on the measures that shall be implemented to protect or mitigate the impact to the ~~sites~~ cultural resources. Prior to submission to the CPUC, the Applicant will consult with Native American groups on appropriate mitigation and treatment of recovered artifacts that are prehistoric or Native American in nature. ~~The Native American Heritage Commission can mediate negotiations at the Applicant's discretion under California Public Resources Code 5097.94(k) or (l). All t~~Test and data-recovery level excavations of prehistoric or Native American related sites shall be monitored by representatives of interested Native American Tribes. The Pechanga and Soboba Bands of Luiseño Indians have expressed a desire to be present during excavations. Appropriate measures for unique archaeological resources or historical resources could include preservation in place through planning construction to avoid the resources, capping cultural resources deposits with a layer of sterile soil, or incorporation of sites into parks, greenspace, or other open spaces where feasible. In the event that preservation of the resources is not feasible the ~~CRTP~~CPMP should detail an appropriate data recovery plan which makes provisions for adequately recovering the scientifically consequential information from and about the resource in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitation, Restoring, and Reconstructing Historic Buildings (1995). Such studies shall be deposited with the California Historical Resources Regional Information Center. Any excavations of archaeological resources that are prehistoric or Native American in nature shall be monitored by a Native American Representative. A report detailing the results of all evaluation and data recovery activities shall be completed and submitted to the CPUC as well as the Eastern Information Center, and other agencies, as appropriate. Any artifacts recovered as a result of mitigation shall be managed in accordance with procedures outlined in the CPMP. ~~donated to a qualified scientific institution or approved curation facility where they would be afforded long term preservation to allow future scientific study~~. The ~~CRTP~~CPMP shall address procedures for working in ESAs or other areas deemed sensitive for encountering cultural resources. The ~~CRTP~~CPMP shall include detailed procedures for encountering cultural resource sites or isolates; encountering human remains; requirements for contacting personnel qualified to assess a discovery and its treatment; collections and curation requirements; and compliance with applicable laws and regulations; and tribal monitoring by participating Native American Tribes. Avoidance of known cultural resources is central to the current project objectives; however, the ~~CRTP~~CPMP shall define protocol to reduce impacts to undiscovered cultural resources that may be encountered during construction to a Class II impact.	The CPMP does not deviate from the basic requirements of the Cultural Resources Treatment Plan, but rather adds in detail, the guidelines for the identification and management of cultural resources in the API. In addition, the CPMP will discuss an inventory of cultural resources and management measures within the ADI, as well as define the process for WEAP training, cultural resource avoidance measures, management of human remains, unanticipated discoveries, inadvertent impacts to resources, curation, monitoring, Native American Participation, evaluation of historical significance and determinations of effect, and communication plans.

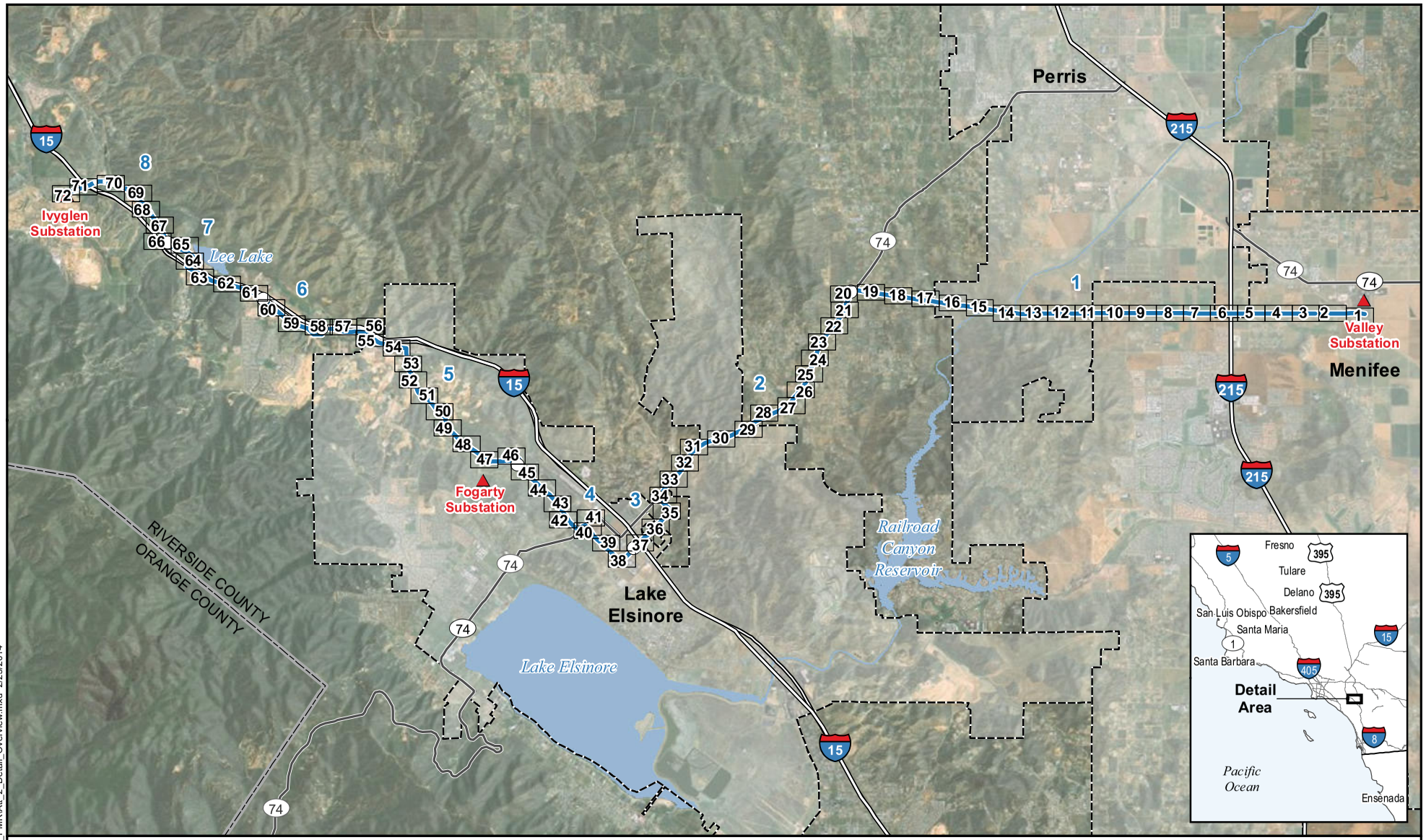
Modified MM or APM	Proposed Modifications (strikeout identifies deletions and underline identifies additions)	Justification
MM CUL-1c: Construction Monitoring	Prior to any ground disturbing activities taking place in conjunction with this project the applicant shall provide evidence that an archaeologist has been retained by the landowner or subsequent project applicant and that the consultant(s) will ~~be present during all grading and other significant ground disturbing activities~~ monitor for CRHR eligible and all prehistoric archaeological sites within 400 feet from proposed ground-disturbing areas, with the exception of monitoring ground disturbing activities within 1,000 feet of P-33-000714. Ground-disturbing activities include grading, blading, trenching, grubbing, drilling/boring, and excavation. These consultants shall be selected from the roll of qualified archaeologists maintained by the County of Riverside. Tribal monitoring of prehistoric archaeological sites shall occur as outlined in the CPMP. Should any cultural resources be discovered, the qualified archaeologist ~~monitor~~ is authorized to stop all ~~grading~~ ground disturbing activities in the immediate area of the discovery, and shall make recommendations to the CPUC on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. If the resources are determined to be "historical resources" as defined in Section 15064.5, mitigation measures shall be identified by the ~~monitor~~ qualified archaeologist and recommended to the CPUC. Appropriate treatment for such previously undiscovered resources should be in accordance with the ~~CRTP~~CPMP implemented in MM CUL-1b. No further ~~grading~~ ground-disturbing activities shall occur in the area of the discovery until the CPUC approves the measures to protect these resources. Any archaeological artifacts recovered as a result of monitoring and mitigation shall be ~~submitted to an approved curation facility for storage~~ managed in accordance with procedures outlined in the CPMP. ~~All construction activities in ESAs, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant p~~Portions of the project site contain ~~sedimentary deposits~~ late Pleistocene to Holocene sediments (Figure D.5-1)[6] that may hold buried cultural resources.~~; full-time cultural resources monitoring should be implemented during all phases of ground disturbing work~~ in these areas ~~(Figure D.5-1)~~ a qualified archaeologist shall be present to spot-check in areas of ground-disturbing activities within each Project segment. Based on observations of soil stratigraphy or other factors, and in consultation with the CPUC, the archaeologist may reduce the level and duration of spot-check or suspend it as warranted. A cultural resource monitor must meet the Secretary of the Interior Standards Qualifications as a professional archaeologist, and must be on the County of Riverside Cultural Resources Consultants list. The archaeological monitor(s) must also be familiar with the project area and therefore capable of anticipating the types of cultural resources that may be encountered.	Avoidance of cultural resources is preferred and can be carried out through designations of ESAs, pre-construction training of personnel to avoid ESAs, and changes to project design. When avoidance of Historical Resources is not possible, then SCE will test and evaluate the site as mentioned in MM CUL-1b. In addition, due to the low number of prehistoric archaeological sites in the API, the sensitive nature of these sites, and at the request of the Pechanga Band of Luiseño Indians, monitoring will occur at prehistoric sites located within 400 feet of ground disturbing activities with the exception of P-33-000714 as noted. A 400-foot buffer for monitoring was implemented since such buffer is the corridor width for cultural resource surveys reported in the Final EIR. With designations of ESAs, avoidance measures, monitoring of resources as noted above, and conflicting data regarding whether late Pleistocene to Holocene sediments may hold buried cultural resources (see Tables D.5-2[7] and D.5-4[8]), monitoring of ground disturbing activities within these sediments will consist of spot-checking areas within each Project segment, with the duration and timing of monitoring to be determined by the qualified archaeologist in consultation with the CPUC and based on grading plans, observations of soil stratigraphy, and other factors.
MM CUL-1d: Human Remains	In the event of the accidental discovery or recognition of human remains during Project construction, the following steps shall be taken: There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Riverside County Coroner is contacted to determine if the remains are prehistoric and that no investigation of the cause of death is required. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable timeframe. Subsequently, the Native American Heritage Commission shall identify the "most likely descendant." The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98. The Native American Heritage Commission can mediate negotiations at the Applicant's discretion under California Public Resources Code 5097.94(k) or (l), as appropriate.	Reference to California Public Resources Code 5097.94(k) or (l) is removed from MM CUL-1b and included in MM CUL-1d as it refers to the Native American Heritage Commission's involvement in the treatment and disposition of Native American burials, skeletal remains, and items associated with Native American burials.
MM HYD-5a: State Water Resources Control Board Construction General Permit	~~The environmental training and monitoring program identified in HYDRO-SCE-2 shall be reviewed and approved by the Santa Ana RWQCB for compliance with the Santa Ana Water Quality Control Plan prior to initiation of construction.~~ SCE will obtain Construction General Permit coverage through the State Water Resources Control Board. Verification of approval shall be provided to the CPUC at least 60 days before construction.	Construction General Permit coverage is not obtained from the Santa Ana RWQCB. Rather, the application is submitted to the State Water Resources Control Board for approval. Further, the RWQCB does not review environmental training programs.
MM HYD-5b: Regional Water Quality Control Board (RWQCB) Storm Water Pollution Prevention Plan (SWPPP) Review	~~The SWPPP discussed in HYDRO-SCE-1 and 3 shall be reviewed and approved by the Santa Ana RWQCB for compliance with the Santa Ana Water Quality Control Plan prior to initiation of construction. Verification of approval shall be provided to the CPUC at least 60 days before construction.~~	MM HYD-5b has been deleted because it is superseded by the revisions to MM HYD-5a.

[6] Refers to Figure D.5-1: Late Pleistocene to Holocene Sediments in the Project Area Requiring Cultural Resources Monitoring During Construction of the Project in the Final EIR
[7] Refers to Table D.5-2: Cultural Resources Sites Not Eligible for the CRHR Located Along the Valley-Ivyglen 115 kV Subtransmission Line Proposed Route in the Final EIR
[8] Refers to Table D.5-4: Archaeological Resources Sites Not Eligible for the CRHR Located Along the Valley-Ivyglen 115 kV Subtransmission Line in the Final EIR

Modified MM or APM	Proposed Modifications (strikeout identifies deletions and underline identifies additions)	Justification
APM HYDRO-SCE-1: SWPPP	The SWPPP would be submitted to Riverside County along with grading permit applications. Implementation of the SWPPP would help stabilize graded areas and waterways, and reduce erosion and sedimentation. The plan would designate BMPs that would be adhered to during construction activities. Erosion-minimizing efforts such as ~~straw~~ wattles, water bars, covers, silt fences, and sensitive area access restrictions (for example, flagging) would be installed before clearing, ~~and~~ grading, and blasting began. Mulching, seeding, or other suitable stabilization measures would be used to protect exposed areas during construction activities. During construction activities, measures would be in place to ensure that contaminants are not discharged from construction sites. The SWPPP would define areas where hazardous materials would be stored, where trash would be in-place, where rolling equipment would be parked~~,~~; where helicopters would be landed, fueled and serviced~~,~~; and where construction materials such as reinforcing bars and structural steel members would be stored. Erosion control during grading of the construction sites and during subsequent construction would be in-place and monitored as specified by the SWPPP. A silting basin(s) would be established, as necessary, to capture silt and other materials, which might otherwise be carried from the site by rainwater surface runoff.	The Proposed Modifications include blasting, which would require BMPs to minimize the potential for erosion. SCE may use alternatives to straw wattles on some segments to avoid grazing by livestock. The Proposed Modifications include helicopter use, which require BMPs for fueling helicopters that would be similar to the BMPs required for rolling equipment.
MM NOISE-1a: Construction Noise Hours	The Applicant shall stop all construction work within 300 feet of sensitive receptors within Riverside County at 6:00 pm. If the California Independent System Operator (CAISO) and/or California Department of Transportation (Caltrans) require that conductor stringing over freeways or highways occur at after 6:00 p.m., SCE would obtain an exception from the Riverside County Director of Building and Safety.	The CAISO and/or Caltrans may require that conductor stringing over freeways or highways occur at night to avoid impacts to the power grid and/or motorists. SCE would obtain a variance from Riverside County to conduct work outside of hours allowed by the County's noise ordinance.
APM NOISE-SCE-1: Construction Noise Hours	All construction and general maintenance activities, except in an emergency, shall be limited to the hours of 7:00 a.m. to 7:00 p.m. and prohibited on Sundays and all legally proclaimed holidays. If the CAISO and/or Caltrans require that conductor stringing over freeways or highways occur at after 7:00 p.m. or on a Sunday, SCE would obtain variances from the applicable jurisdictional agencies.	The CAISO and/or the Caltrans may require that conductor stringing over freeways or highways occur at night or on a Sunday to avoid impacts to the power grid and/or motorists. SCE would obtain variances from the applicable jurisdictional agencies.
TRANS-APM 2: Work Area Protection and Traffic Control Manual	If lane closures are required, the Applicant would comply with BMPs established by the ~~Work Area Protection and~~ California Joint Utility Traffic Control Manual (California Joint Utility Traffic Control Committee ~~1996~~2010). These measures might include the use of cones, flagmen, detours, or performance of construction at night if work requires equipment or personnel operation within the road right-of-way.	Since the release of the Final EIR, the Work Area Protection and Traffic Control Manual (1996) has been updated.

Note: All references to California Fish and Game (CDFG) have been changed to reflect the agency's recent name change to CDFW.

ATTACHMENT 2-A: DETAILED ROUTE MAP



Attachment 2-A: Detailed Route Map Overview

Valley-Ivyglen 115 kV Subtransmission Line Project

- Existing Substation
- Proposed Valley-Ivyglen Route - Overhead
- Proposed Valley-Ivyglen Route - Underground
- Interstate
- Highway
- City Boundary
- County Boundary

1:125,000

0 2 4 Miles

Data Sources: Insignia, 2014; SCE, 2014

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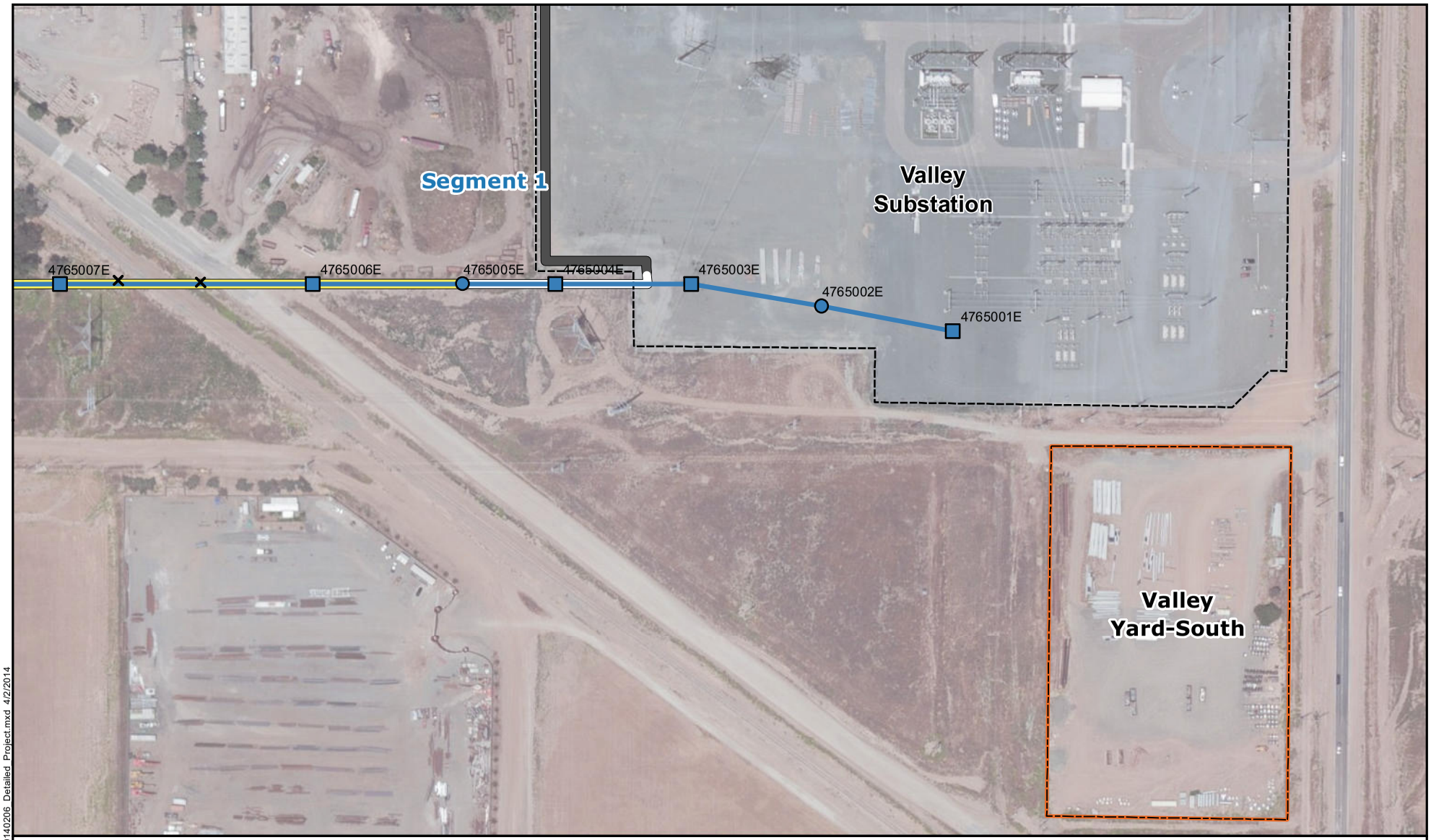

Attachment 2-A: Detailed Route Map 1 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
- TSP
- LWSP
- Hybrid Pole
- Riser Pole
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary

SOUTHERN CALIFORNIA EDISON
INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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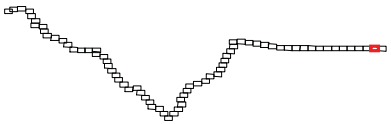
Attachment 2-A: Detailed Route Map 2 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
- TSP
- LWSP
- Hybrid Pole
- Riser Pole
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 3 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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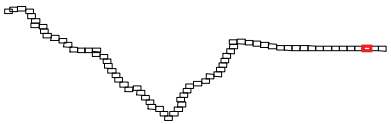
- Substation Boundary



SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 4 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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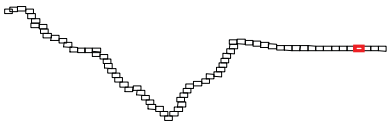
- Substation Boundary



SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 5 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
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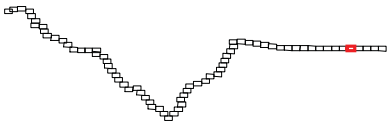
- Segment Break
- Staging Area
- Substation Boundary



SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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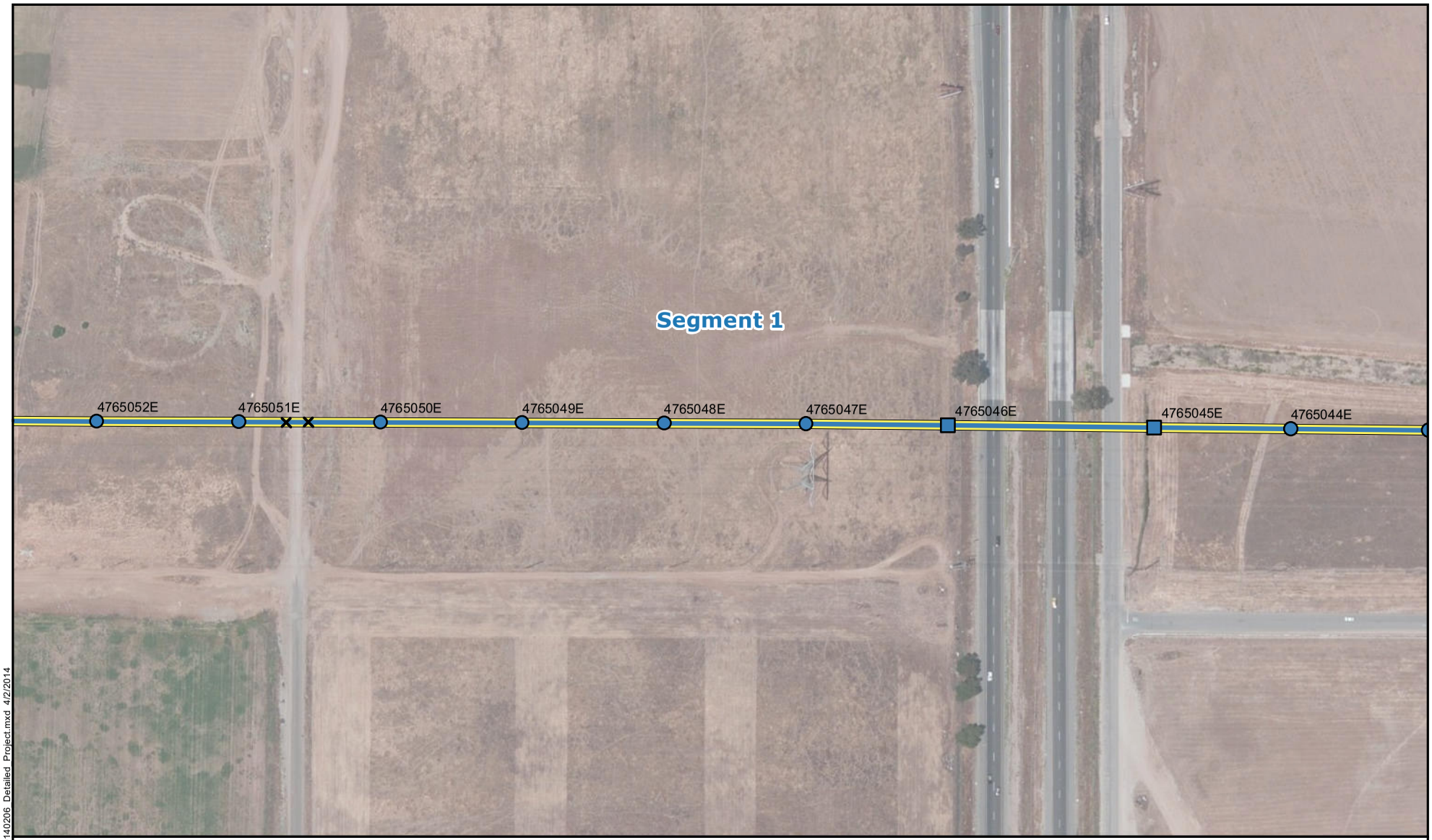

Attachment 2-A: Detailed Route Map 6 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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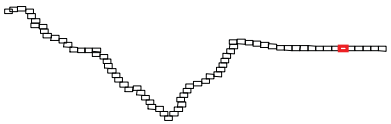

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 7 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
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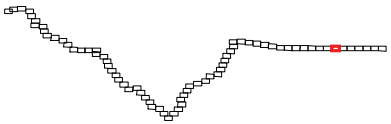

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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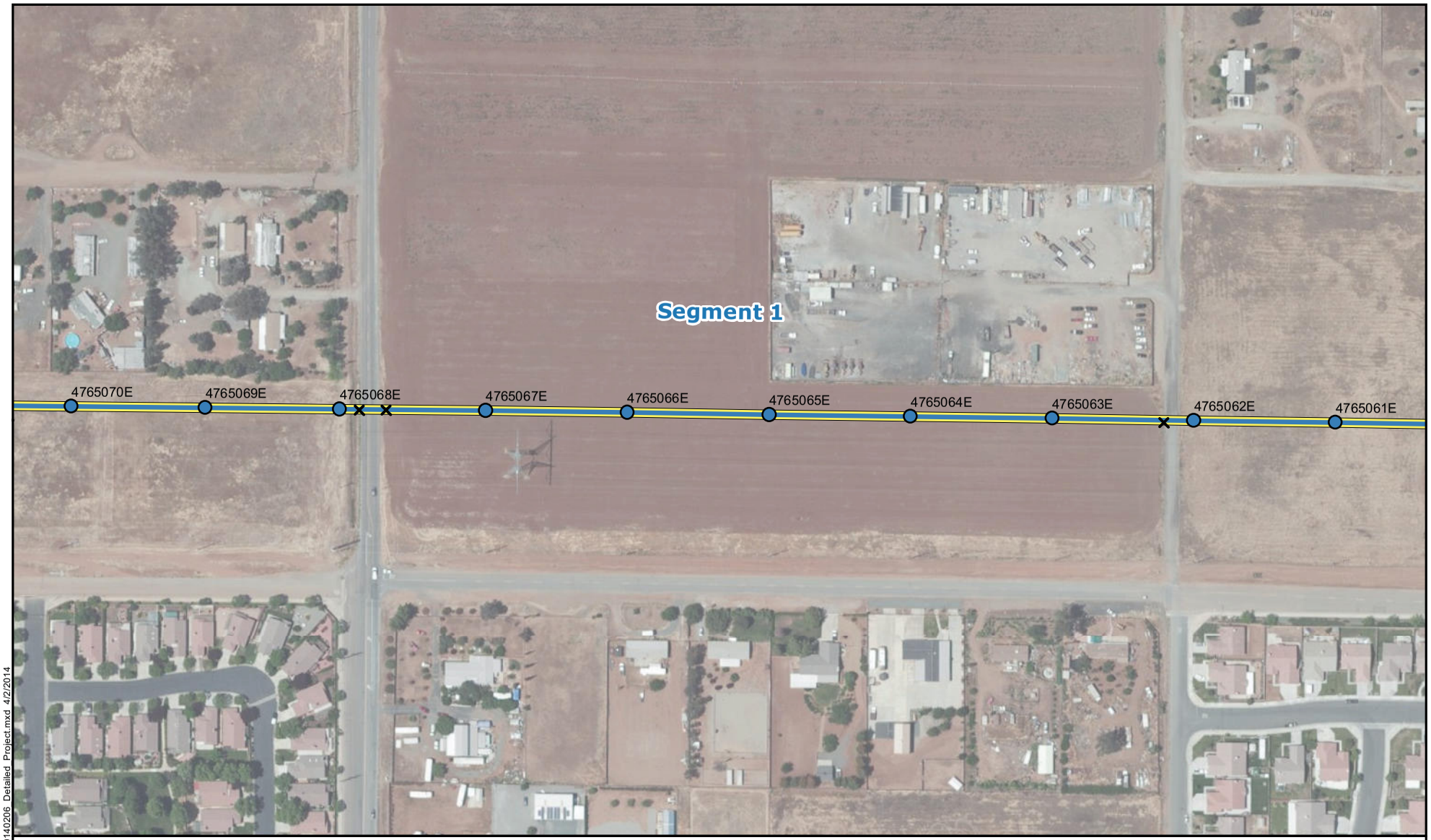

Attachment 2-A: Detailed Route Map 8 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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- Proposed Fogarty-Ivyglen Overhead
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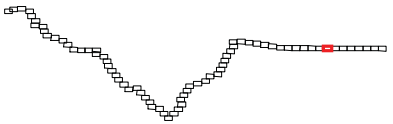

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 9 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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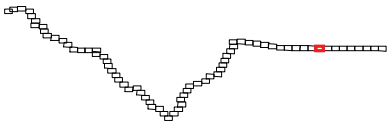

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 10 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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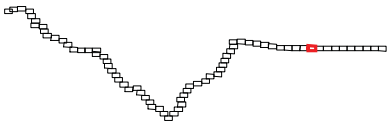

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 11 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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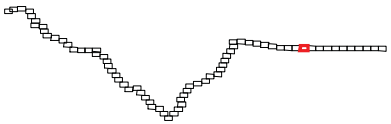

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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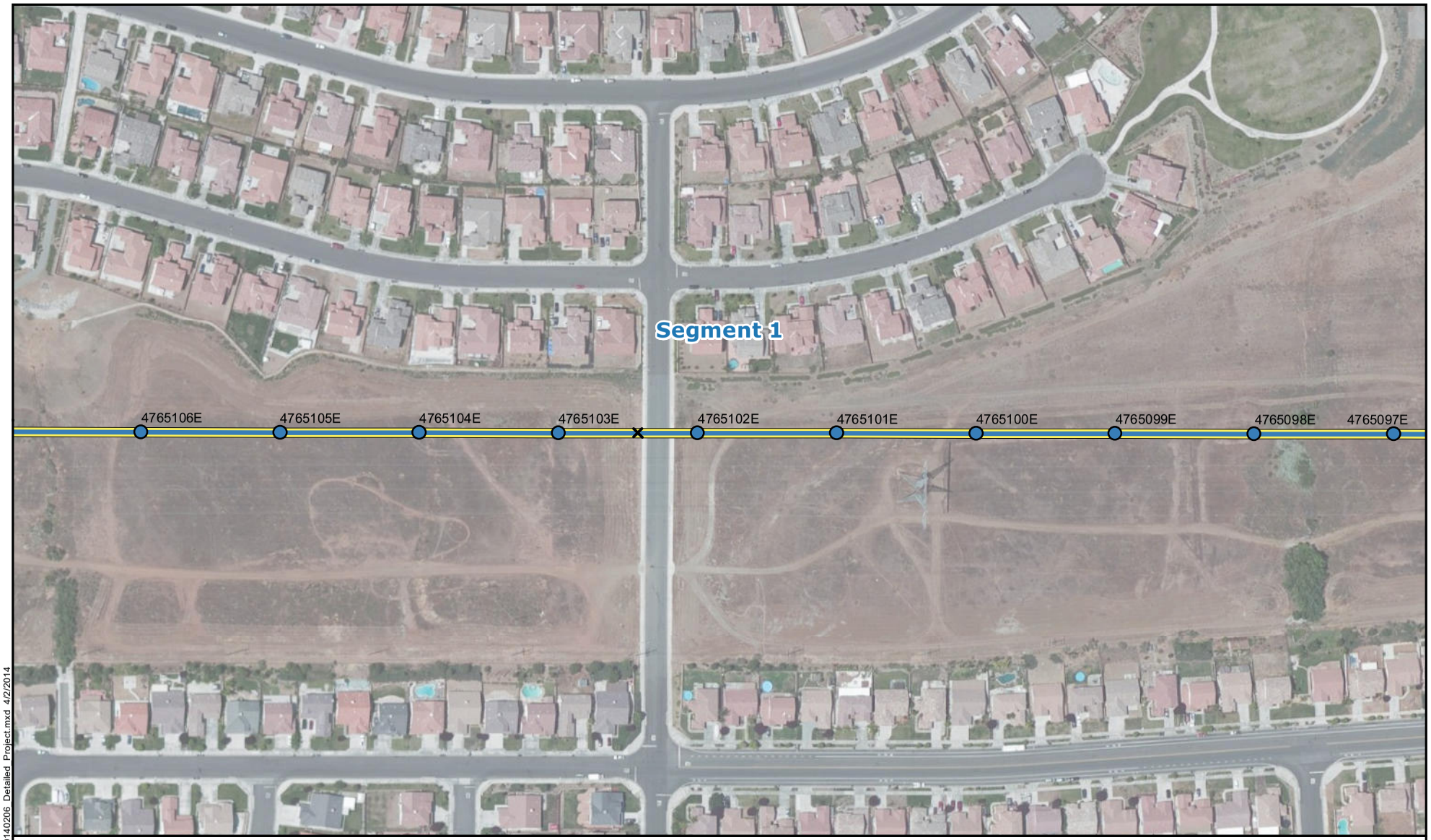

Attachment 2-A: Detailed Route Map 12 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
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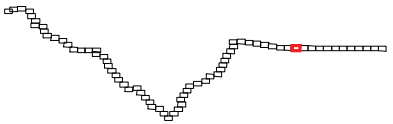

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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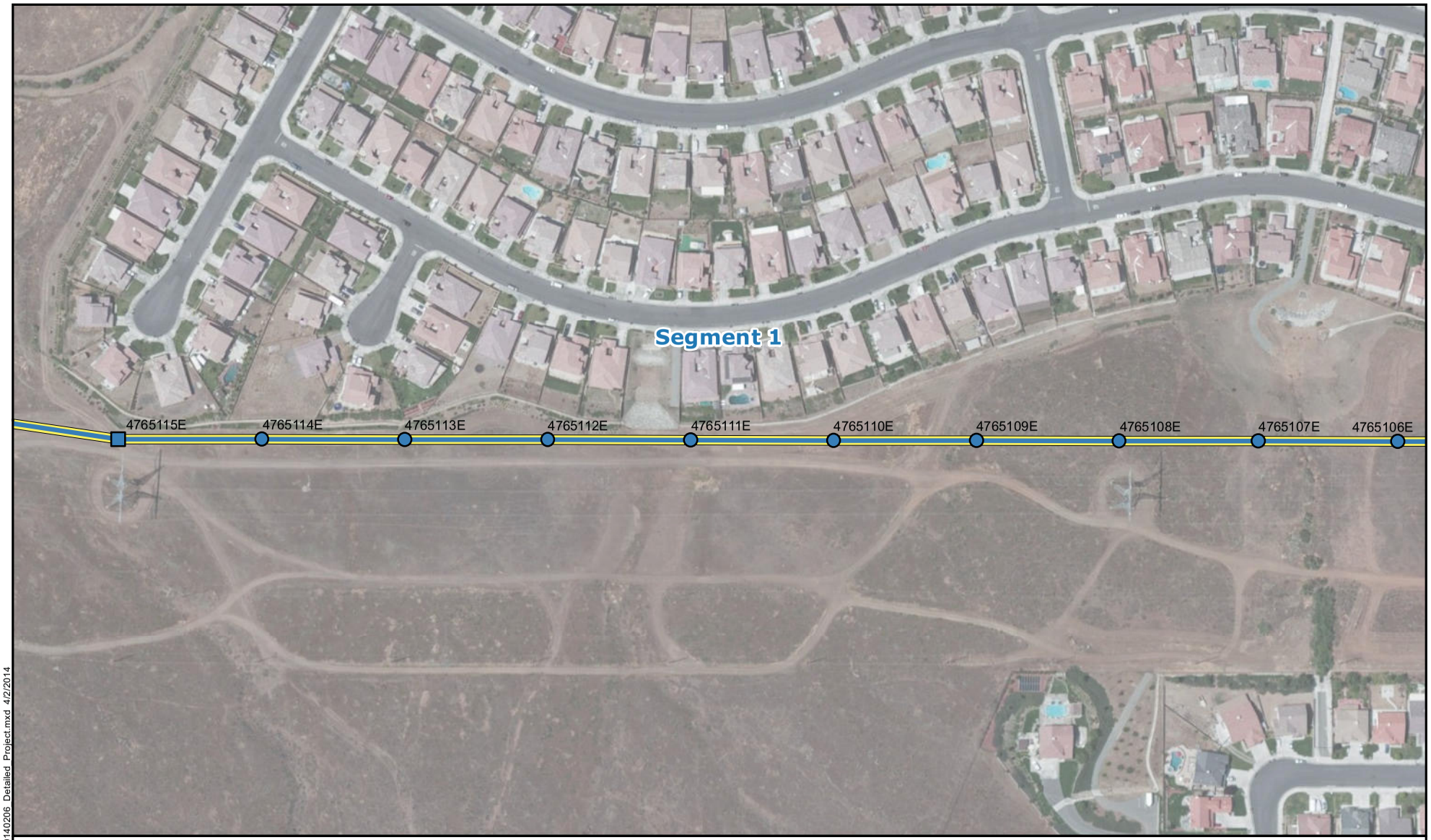

Attachment 2-A: Detailed Route Map 13 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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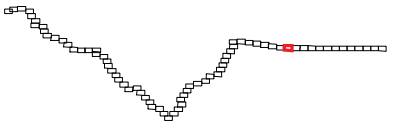

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 14 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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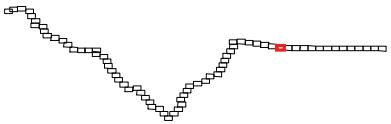

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 15 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
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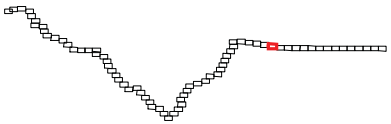

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 16 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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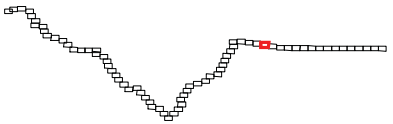

SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 17 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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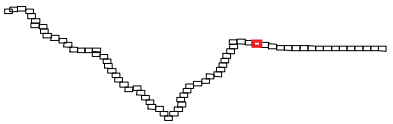

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 18 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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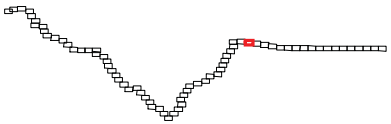
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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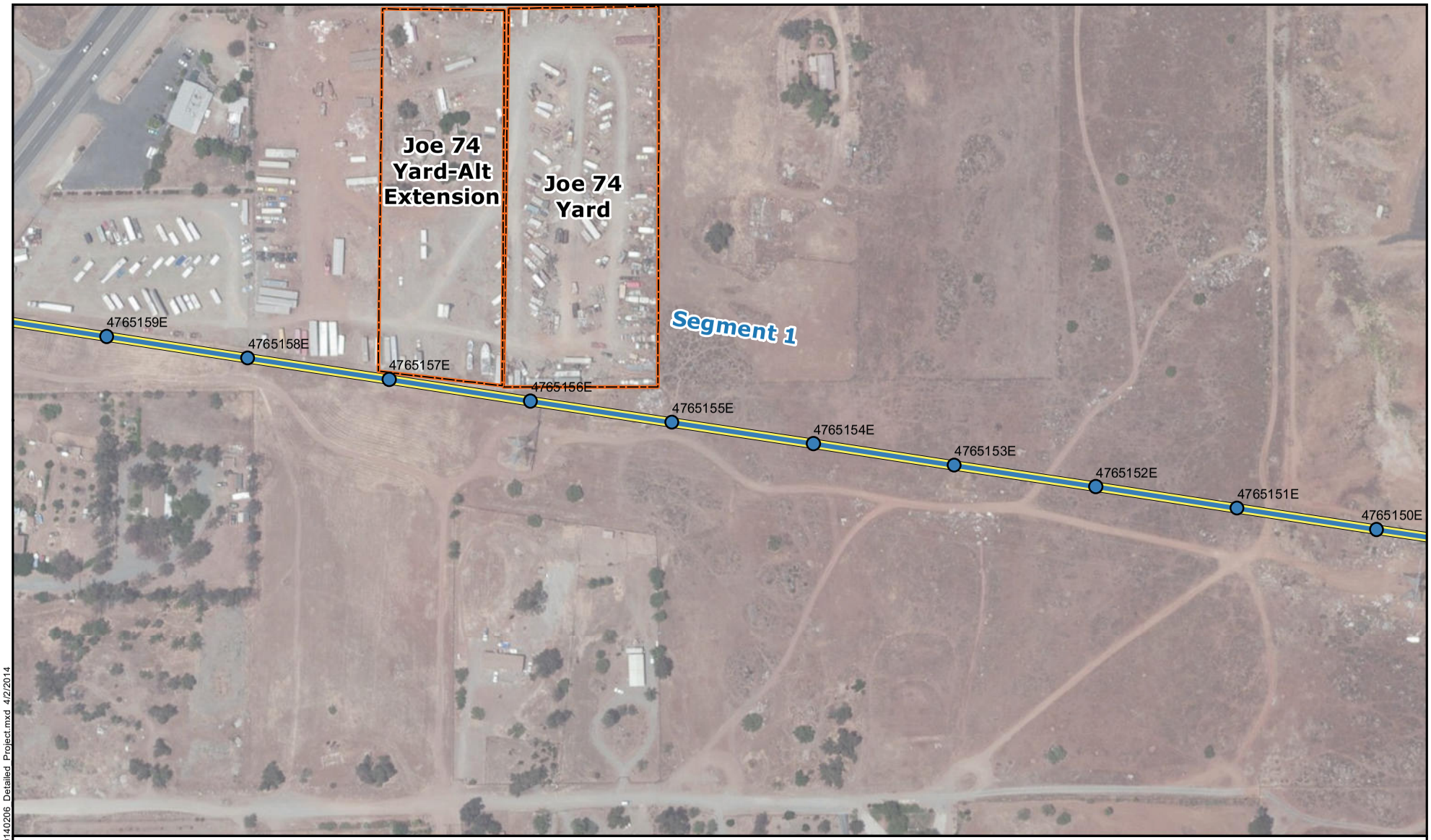

Attachment 2-A: Detailed Route Map 19 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
- TSP
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- Hybrid Pole
- Riser Pole
- Guy Pole
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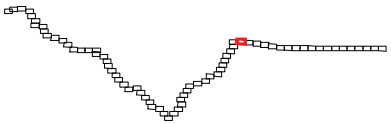
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 20 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
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- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary

Data Sources: Insignia, 2014; SCE, 2014

1:2,700

0 120 240 Feet

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INSIGNIA ENVIRONMENTAL

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Attachment 2-A: Detailed Route Map 21 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
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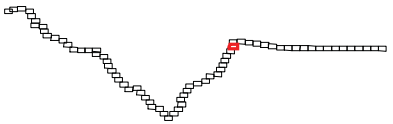
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 22 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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- Proposed Fiber Optic Cable in Existing Conduit
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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 23 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
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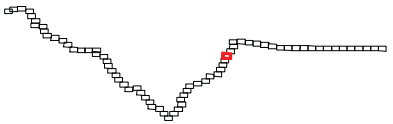
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 24 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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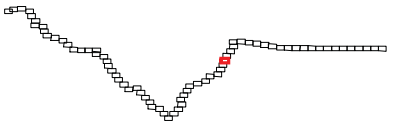
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 25 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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- Proposed Temporary Guard Structure
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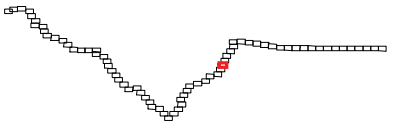
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 26 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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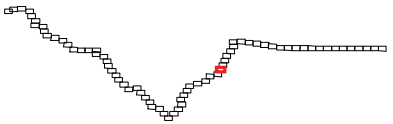

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 27 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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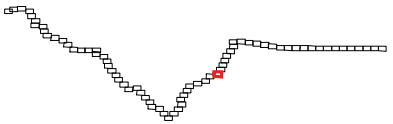

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 28 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
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Data Sources: Insignia, 2014; SCE, 2014

1:2,700

0 120 240 Feet

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Attachment 2-A: Detailed Route Map 29 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
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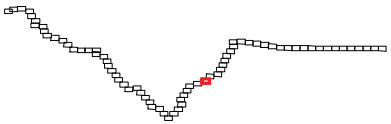
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 30 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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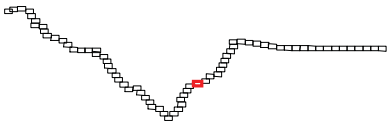
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 31 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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- Proposed Temporary Guard Structure
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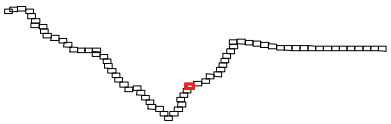
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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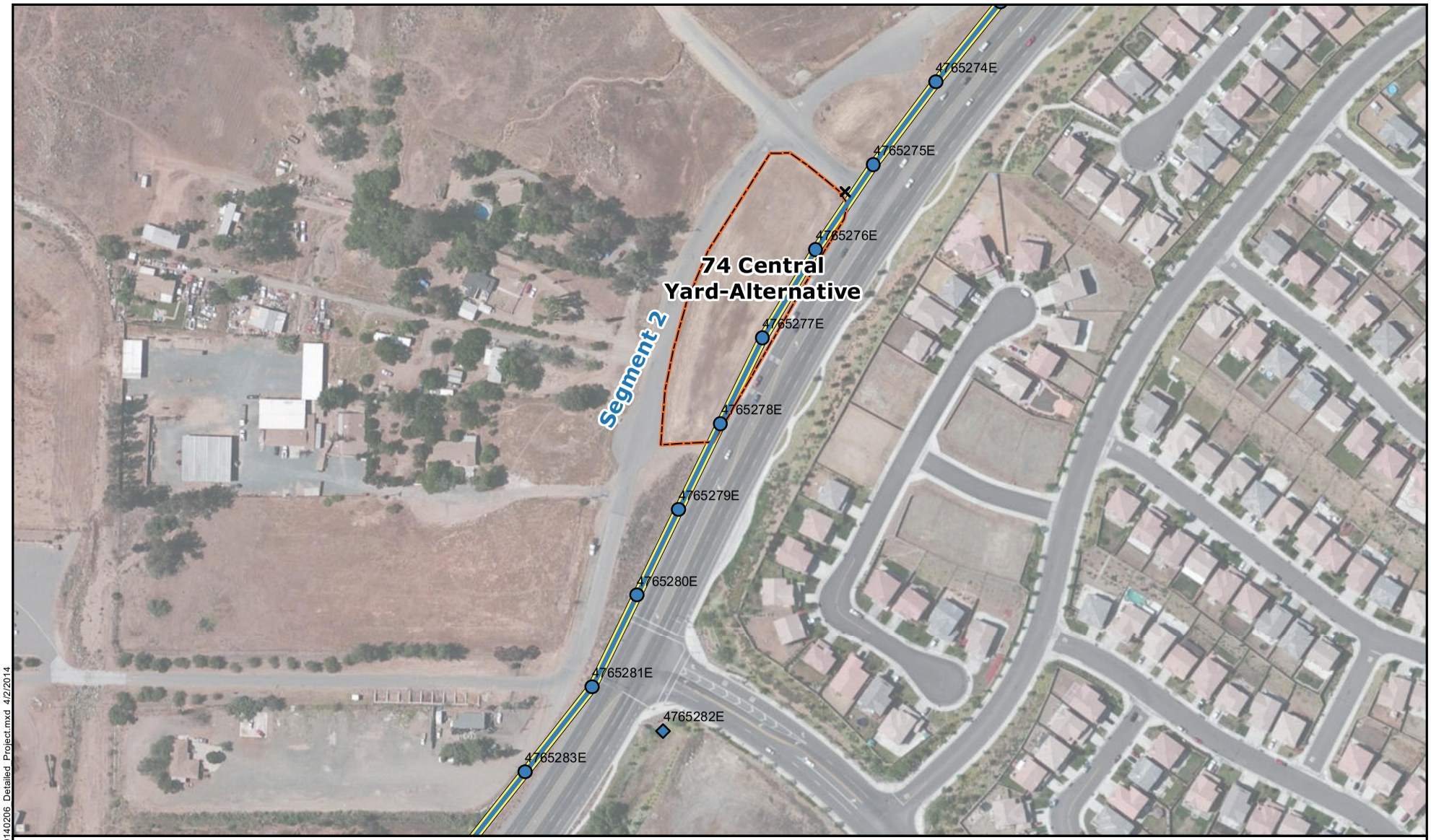

Attachment 2-A: Detailed Route Map 32 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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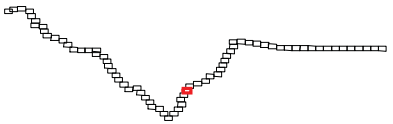

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 33 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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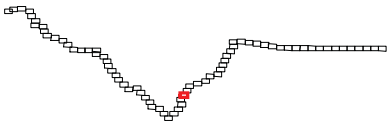

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 34 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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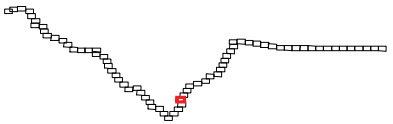

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 35 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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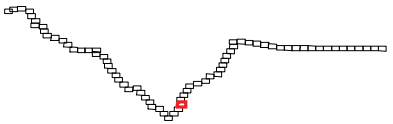
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 36 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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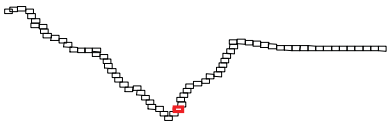
- Staging Area
- Substation Boundary



SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 37 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
- TSP
- LWSP
- Hybrid Pole
- Riser Pole
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary

Data Sources: Insignia, 2014; SCE, 2014

1:2,700

0 120 240 Feet

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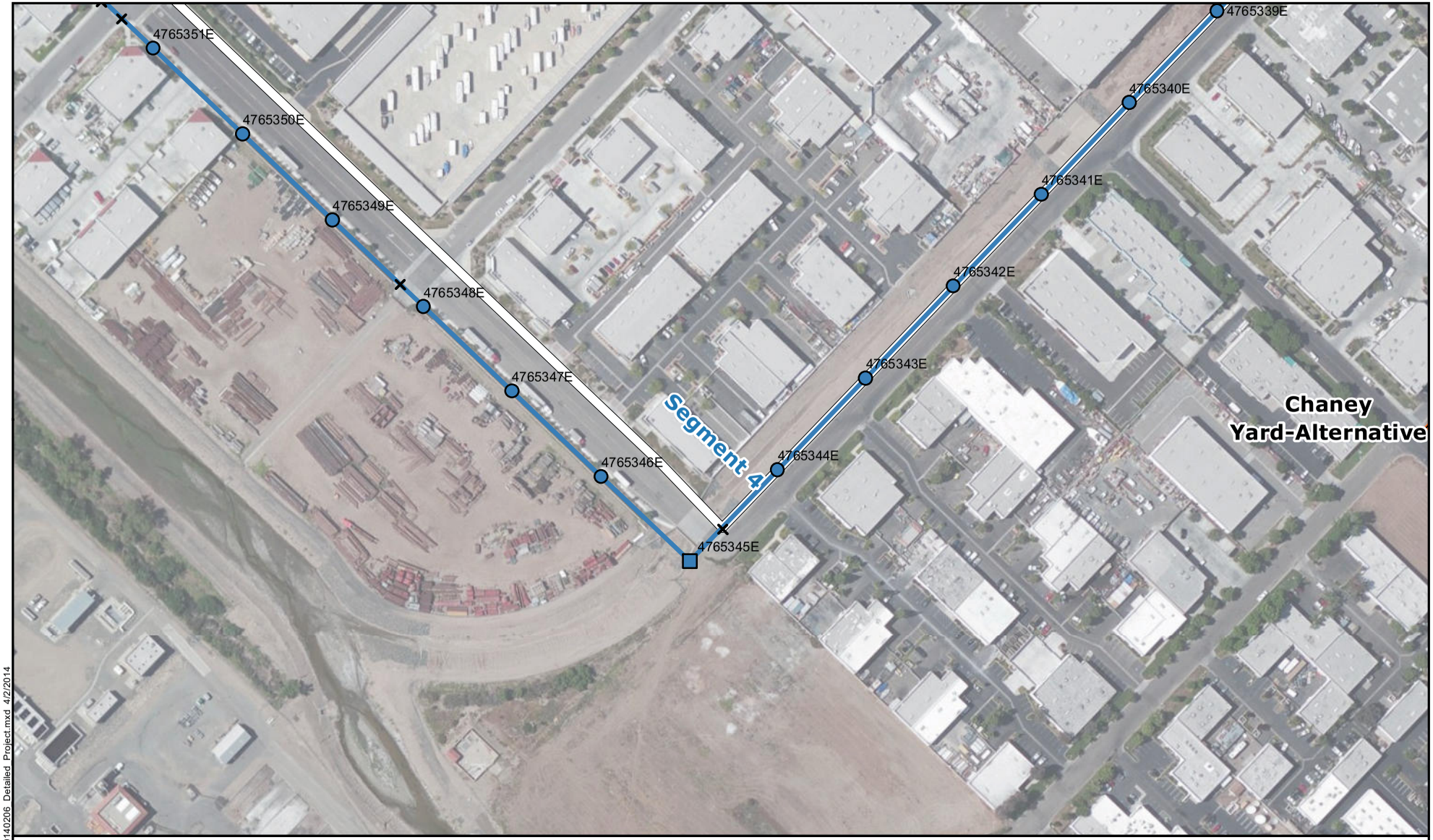

Attachment 2-A: Detailed Route Map 38 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
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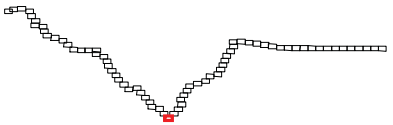
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 39 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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- Proposed Fiber Optic Cable in Existing Conduit
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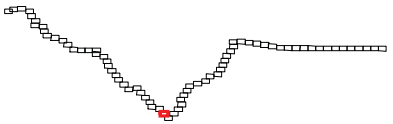
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 40 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
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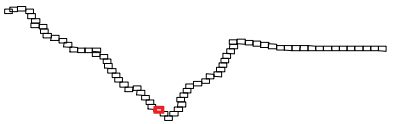
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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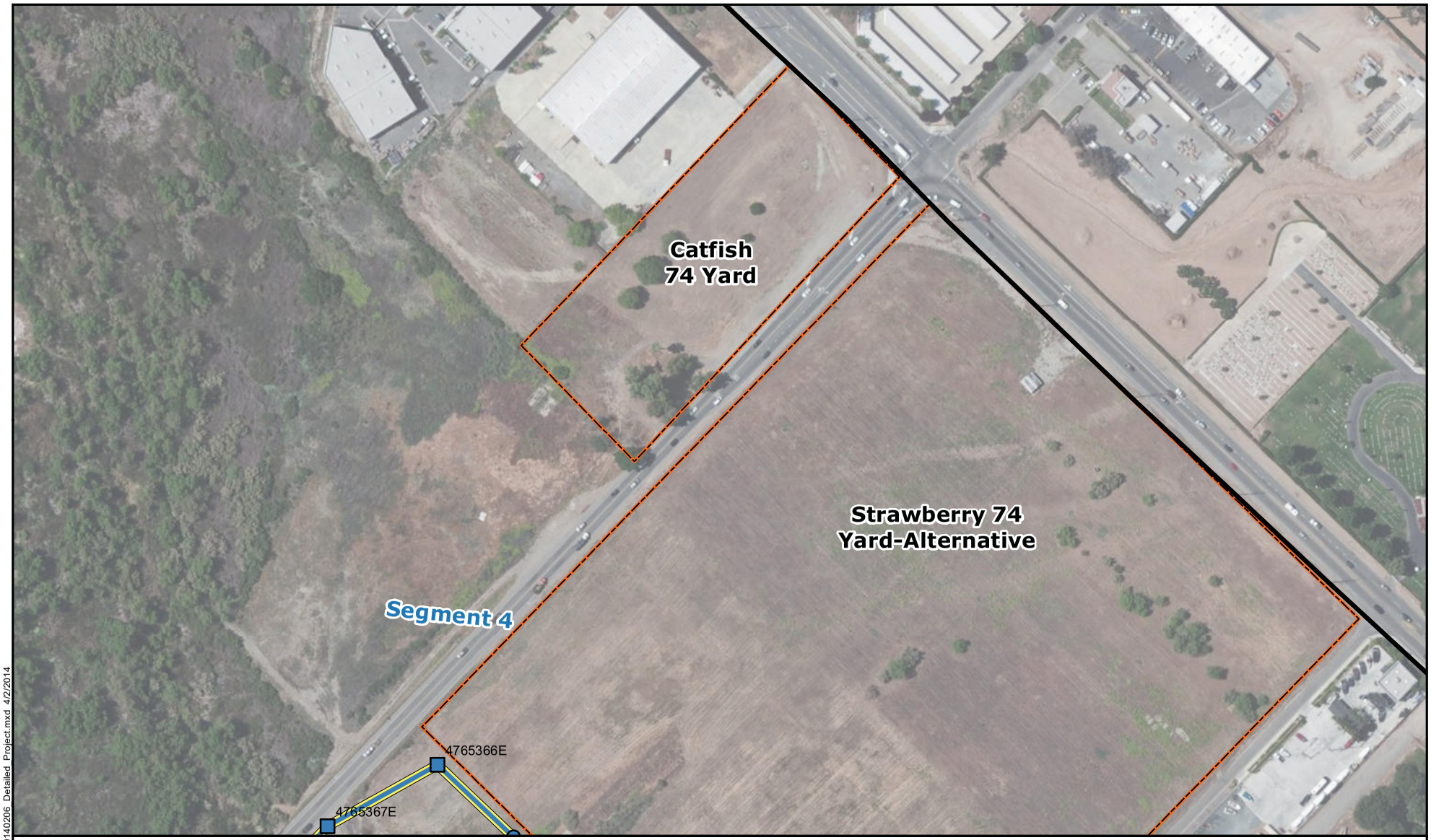

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Attachment 2-A: Detailed Route Map 41 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
- TSP
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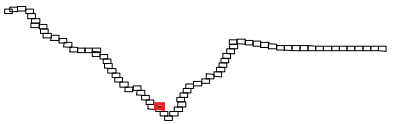
- Hybrid Pole
- Riser Pole
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

Attachment 2-A: Detailed Route Map 42 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
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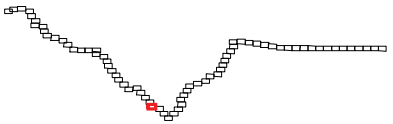
- Riser Pole
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 43 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
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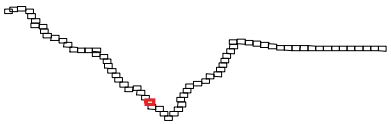
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 44 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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- Proposed Fiber Optic Cable in Existing Conduit
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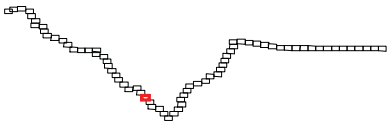
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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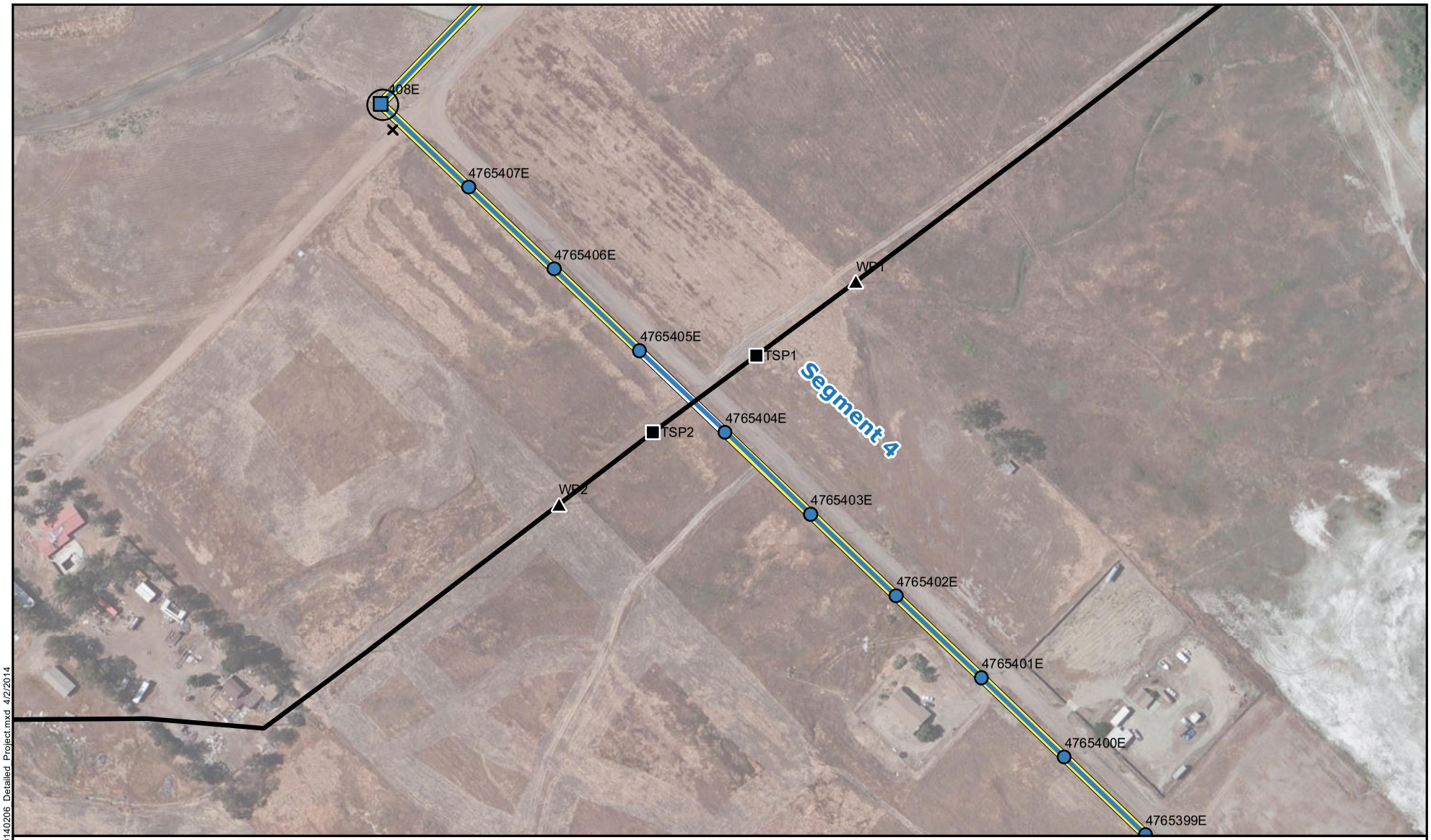

Attachment 2-A: Detailed Route Map 45 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
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- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary

Data Sources: Insignia, 2014; SCE, 2014

1:2,700

0 120 240 Feet

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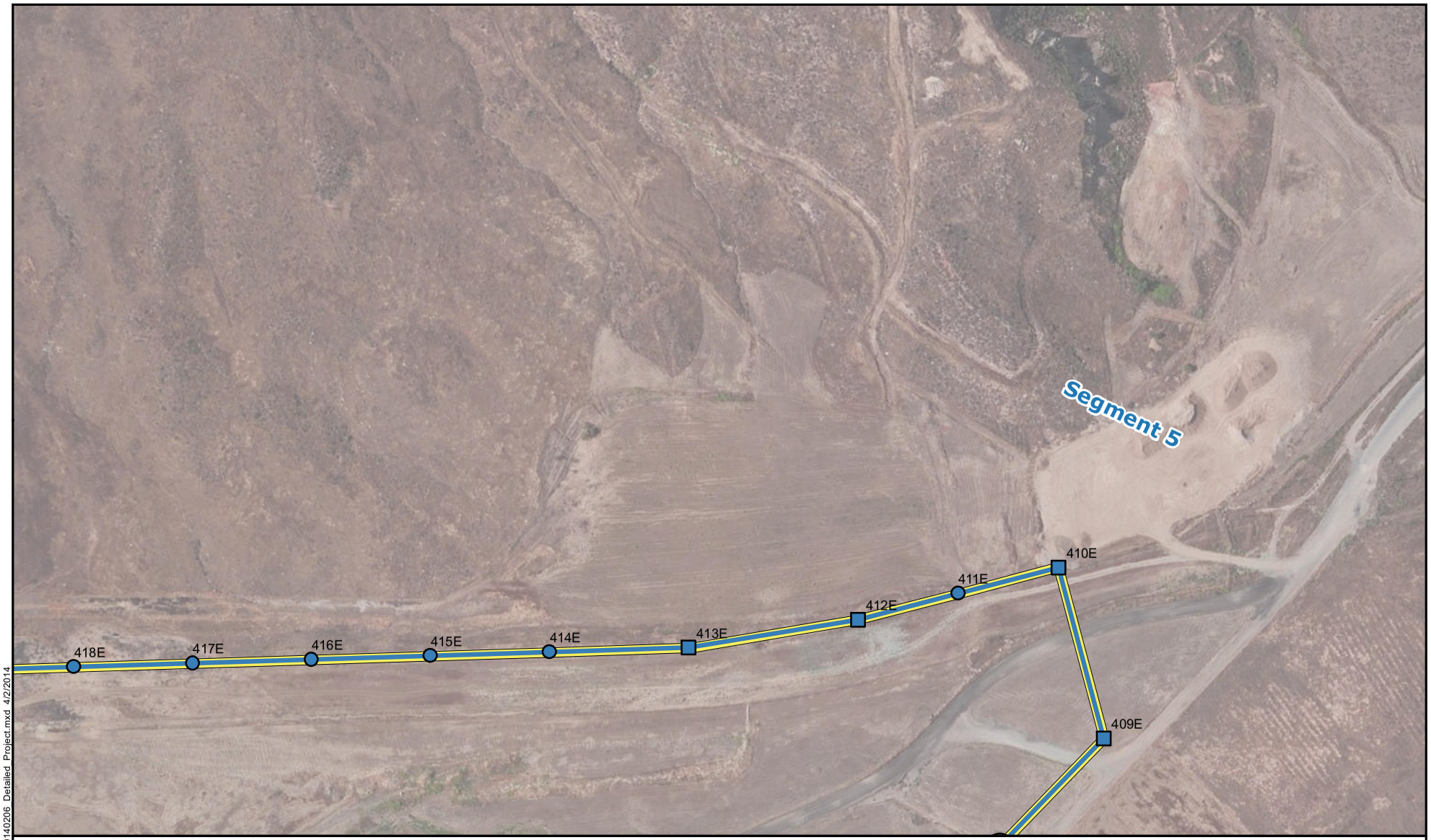

Attachment 2-A: Detailed Route Map 46 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
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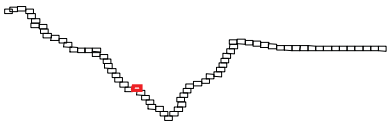
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 47 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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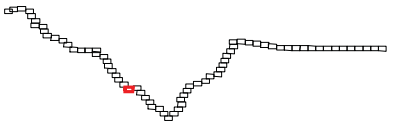
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 48 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
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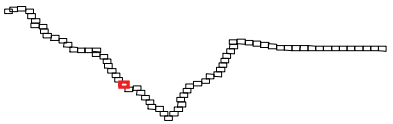
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 49 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
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- Riser Pole
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary

Data Sources: Insignia, 2014; SCE, 2014

1:2,700

0 120 240 Feet

SOUTHERN CALIFORNIA EDISON

INSIGNIA ENVIRONMENTAL

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Attachment 2-A: Detailed Route Map 50 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
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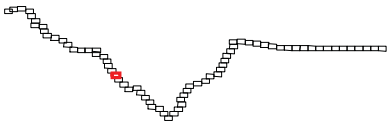
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 51 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
- TSP
- LWSP
- Hybrid Pole
- Riser Pole
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 52 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
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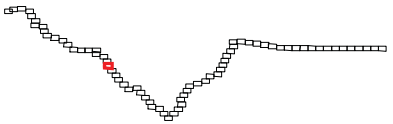
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



SOUTHERN CALIFORNIA EDISON
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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 53 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
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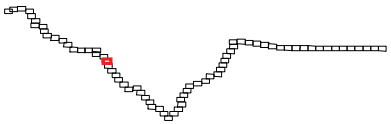
- Riser Pole
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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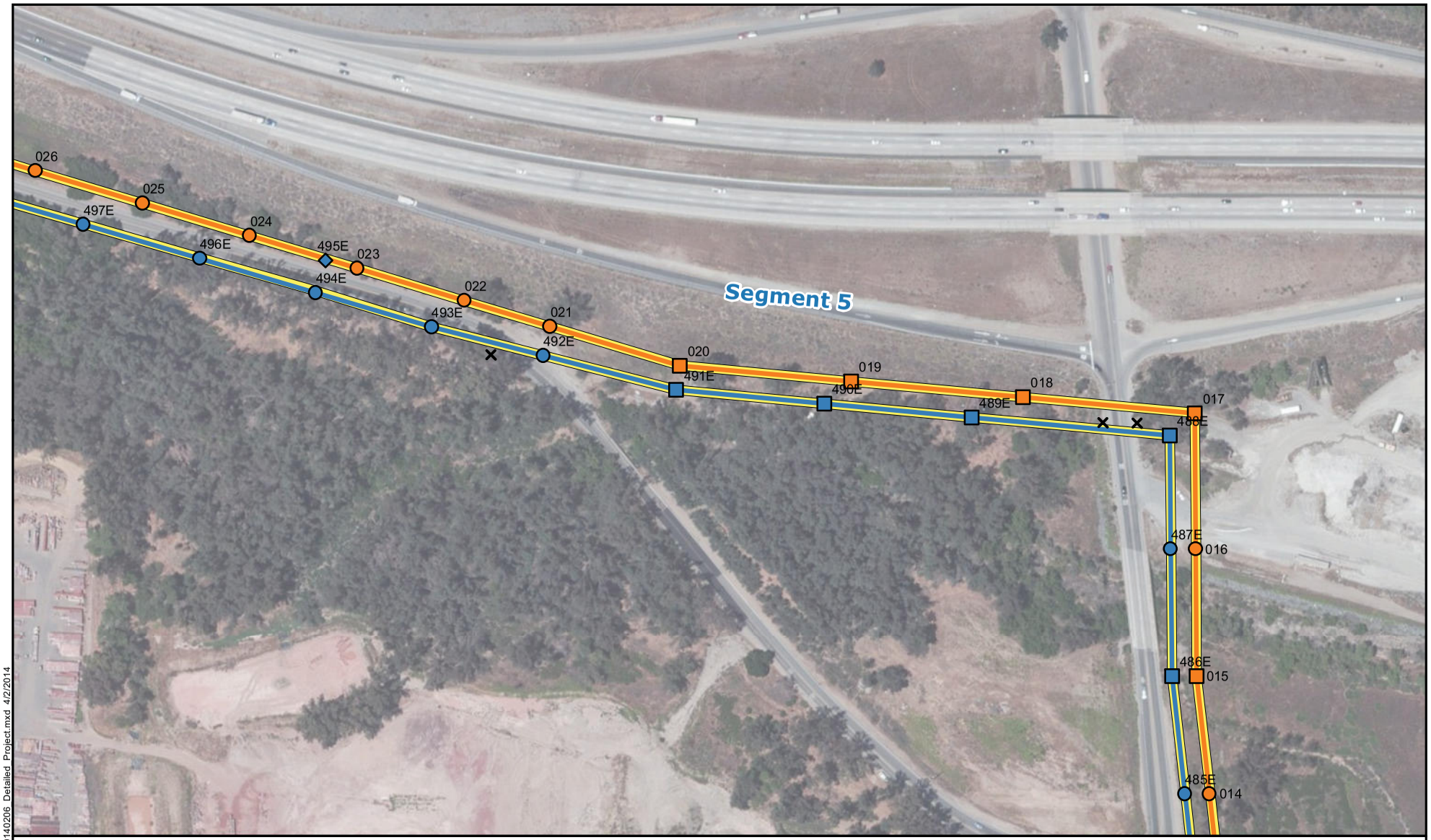

Attachment 2-A: Detailed Route Map 54 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
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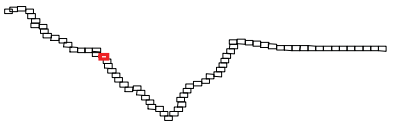
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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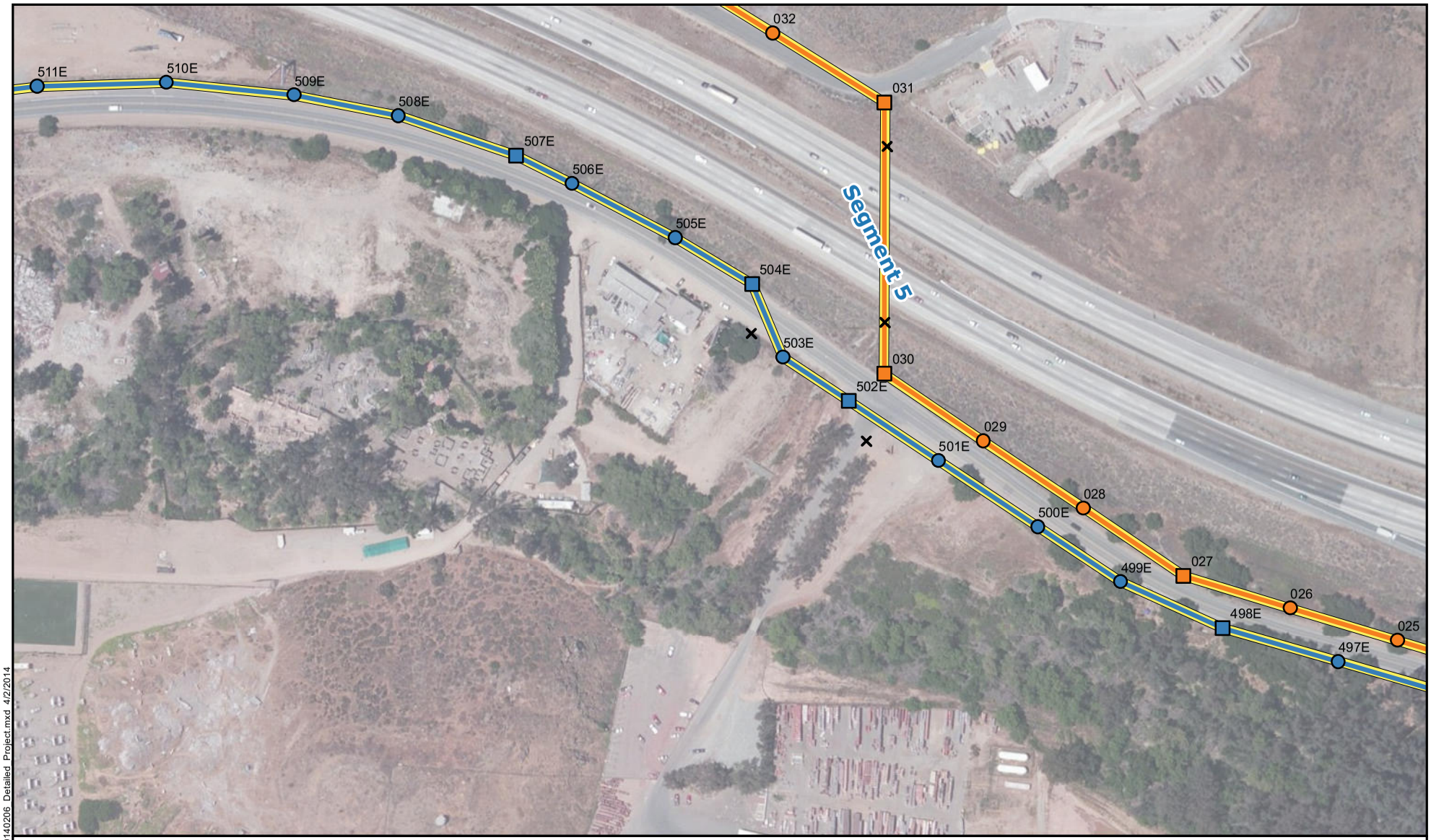

Attachment 2-A: Detailed Route Map 55 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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- Proposed Temporary Shoofly Pole
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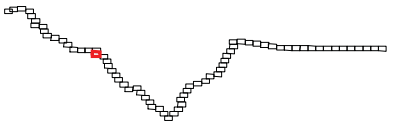
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 56 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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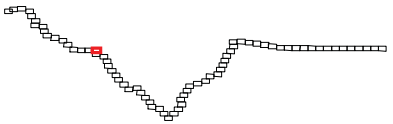
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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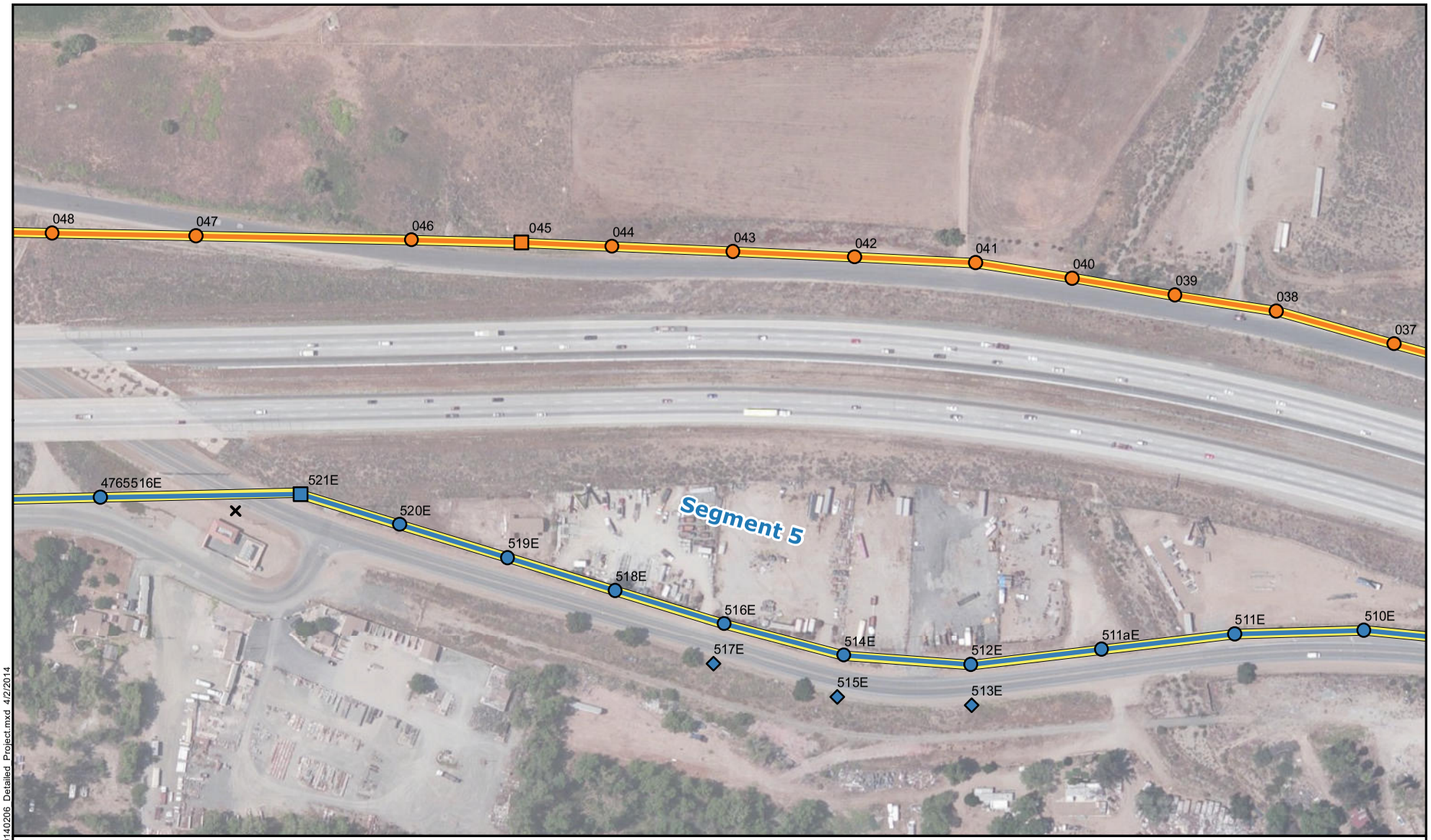

Attachment 2-A: Detailed Route Map 57 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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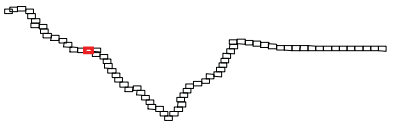
- Substation Boundary



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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 58 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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- Substation Boundary

Data Sources: Insignia, 2014; SCE, 2014

1:2,700

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Attachment 2-A: Detailed Route Map 59 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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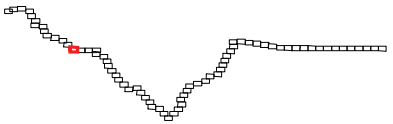

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 60 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
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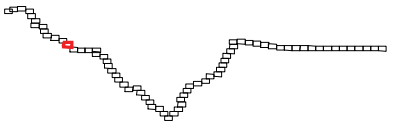

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INSIGNIA ENVIRONMENTAL

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0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 61 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
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INSIGNIA ENVIRONMENTAL

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0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 62 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
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- Proposed Fogarty-Ivyglen Overhead
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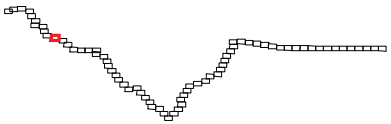

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INSIGNIA ENVIRONMENTAL

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0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 63 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
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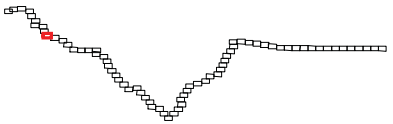

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 64 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
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INSIGNIA ENVIRONMENTAL

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0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 65 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
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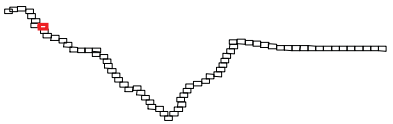

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INSIGNIA ENVIRONMENTAL

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Data Sources: Insignia, 2014; SCE, 2014

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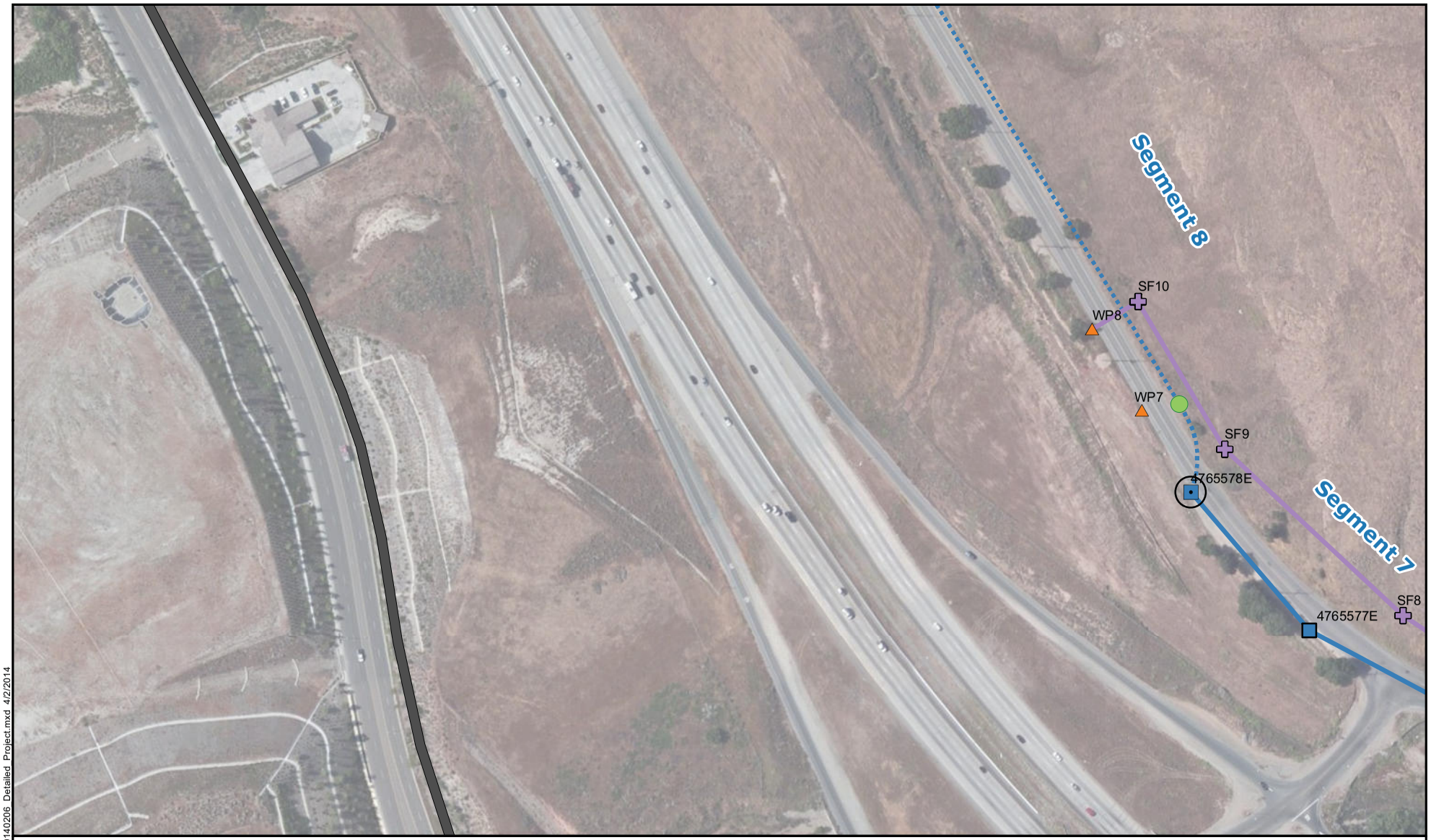

Attachment 2-A: Detailed Route Map 66 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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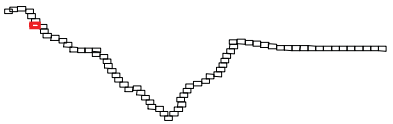

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 67 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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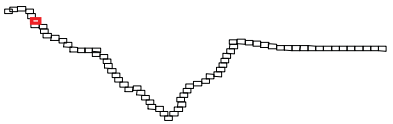

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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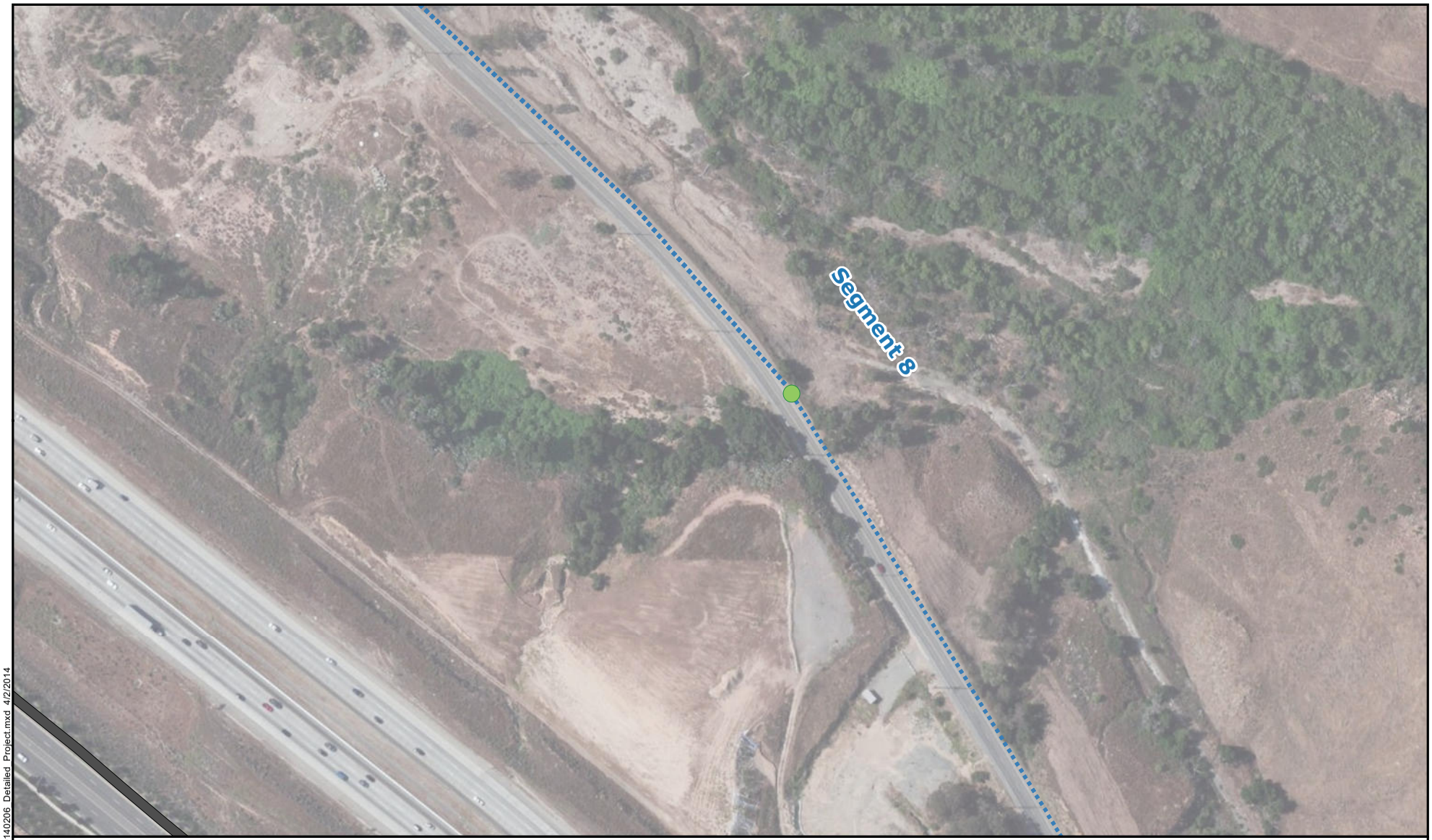

Attachment 2-A: Detailed Route Map 68 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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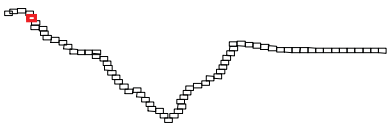

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 69 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
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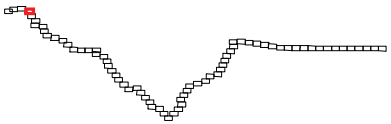

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 70 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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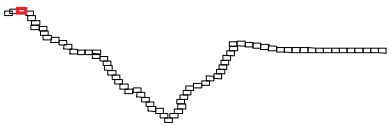

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INSIGNIA ENVIRONMENTAL

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0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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Attachment 2-A: Detailed Route Map 71 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
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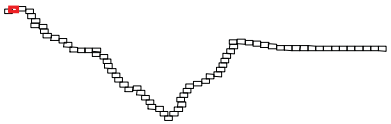

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INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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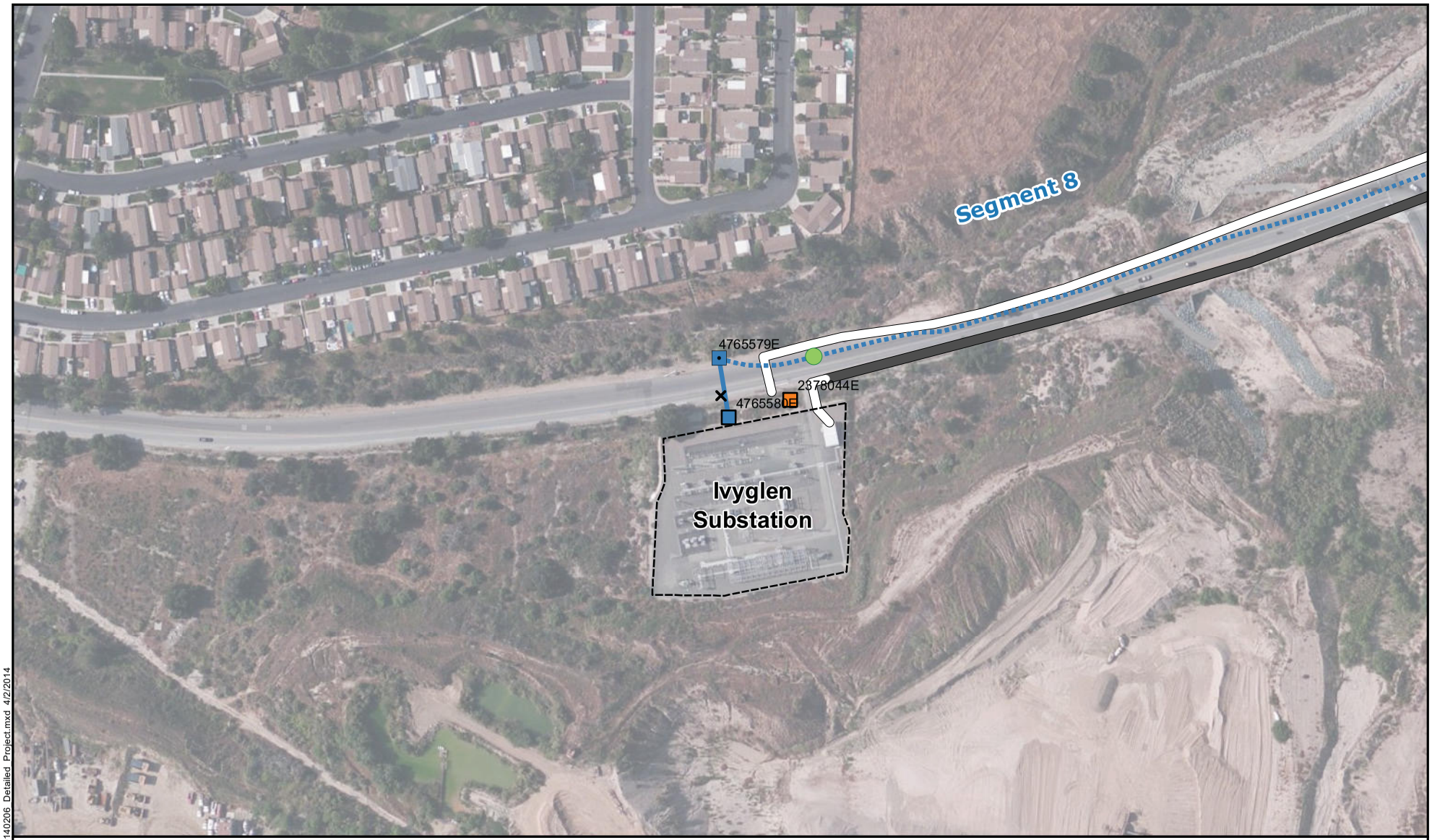

Attachment 2-A: Detailed Route Map 72 of 72

Valley-Ivyglen 115kV Subtransmission Line Project

- Proposed Valley-Ivyglen Overhead
- Proposed Valley-Ivyglen Underground
- Proposed Fogarty-Ivyglen Overhead
- Proposed Valley-Elsinore-Fogarty Overhead
- Proposed Fiber Optic Cable Overhead
- Proposed Fiber Optic Cable in New Conduit
- Proposed Fiber Optic Cable in Existing Conduit
- Proposed Temporary Shoofly
- TSP
- LWSP
- Hybrid Pole
- Riser Pole
- Guy Pole
- Wood Pole
- Proposed Temporary Guard Structure
- Proposed Temporary Shoofly Pole
- Proposed Valley-Ivyglen Underground Vault
- Segment Break
- Staging Area
- Substation Boundary

SOUTHERN CALIFORNIA EDISON
INSIGNIA ENVIRONMENTAL

1:2,700

0 120 240 Feet

Data Sources: Insignia, 2014; SCE, 2014

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ATTACHMENT 2-B: CONSTRUCTION WORK FORCE AND EQUIPMENT REQUIREMENTS

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 1 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**8**		**7.5 Miles**
1-Ton Truck, 4x4	300	Gas	2		8	10	1 Mile
Each Yard (2)				**4**			
2-Ton Truck, 4x4	300	Gas	2		Duration of Project	10	
R/T Forklift	125	Diesel	1			10	
Boom/Crane Truck	350	Diesel	1			10	
Water Truck	300	Diesel	1			10	
Truck, Semi Tractor	400	Diesel	1			10	
R/W Clearing (3)				**8**	**30**		**7.5 Miles**
1-Ton Truck, 4x4	300	Gas	1		30	10	0.25 Mile
Backhoe/Front Loader	125	Diesel	1		30	10	
Track Type Dozer	150	Diesel	1		30	10	
Motor Grader	250	Diesel	1		30	10	
Water Truck	300	Diesel	1		30	10	
Lowboy Truck/Trailer	450	Diesel	1		30	10	
Roads & Landing Work (4)				**8**	**70**		**6.9 Miles & 180 Pads**
2-Ton Truck, 4x4	300	Gas	2		70	10	
Backhoe/Front Loader	125	Diesel	1		70	10	
Track Type Dozer	150	Diesel	1		70	10	
Motor Grader	250	Diesel	1		70	10	
Water Truck	300	Diesel	1		70	10	
Drum Type Compactor	100	Diesel	1		70	10	
Excavator	250	Diesel	1		50	10	
Lowboy Truck/Trailer	450	Diesel	1		70	10	
Guard Structure Installation (5)				**20**	**5**		**25 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		5	10	5 Structures
1-Ton Truck, 4x4	300	Gas	1		5	10	
Compressor Trailer	60	Diesel	1		5	10	
Manlift/Bucket Truck	250	Diesel	1		5	10	
Boom/Crane Truck	350	Diesel	1		5	10	
Auger Truck	210	Diesel	1		5	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		5	10	
Install TSP Foundations (6)				**20**	**40**		**20 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		40	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 1 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Boom/Crane Truck	350	Diesel	1		40	10	0.5 TSPs
Backhoe/Front Loader	125	Diesel	1		40	10	
Auger Truck	210	Diesel	1		25	10	
Water Truck	300	Diesel	1		40	10	
Dump Truck	350	Diesel	1		40	10	
Concrete Mixer Truck	350	Diesel	3		30	10	
TSP Haul (7)				**4**	**5**		**20 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		5	10	
Boom/Crane Truck	350	Diesel	1		5	10	4 TSPs
Flat Bed Pole Truck	400	Diesel	1		5	10	
TSP Assembly (8)				**20**	**20**		**20 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		20	10	
1-Ton Truck, 4x4	300	Gas	2		20	10	1 TSP
Compressor Trailer	60	Diesel	1		20	10	
Boom/Crane Truck	350	Diesel	1		20	10	
TSP Erection (9)				**20**	**20**		**20 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		20	10	
1-Ton Truck, 4x4	300	Gas	2		20	10	1 TSP
Compressor Trailer	60	Diesel	1		20	10	
Boom/Crane Truck	350	Diesel	1		20	10	
LWS Pole Haul (10)				**4**	**32**		**160 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	1		32	10	
Boom/Crane Truck	350	Diesel	1		32	10	5 Poles
Flat Bed Pole Truck	400	Diesel	1		32	10	
LWS Pole Assembly (11)				**20**	**40**		**160 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	2		40	10	
1-Ton Truck, 4x4	300	Gas	2		40	10	4 Poles
Compressor Trailer	60	Diesel	1		40	10	
Boom/Crane Truck	350	Diesel	1		40	10	
Install LWS Pole (12)				**20**	**40**		**160 LWS Poles**
1-Ton Truck, 4x4	300	Gas	1		40	10	
Manlift/Bucket Truck	250	Diesel	1		40	10	
Boom/Crane Truck	350	Diesel	1		40	10	
Auger Truck	210	Diesel	1		40	10	4 Poles
Backhoe/Front Loader	125	Diesel	1		40	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		40	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 1 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Install Conductor (13)				**20**	**23**		**7.5 Circuit Miles**
1-Ton Truck, 4x4	300	Gas	3		23	10	
Manlift/Bucket Truck	250	Diesel	4		23	10	
Boom/Crane Truck	350	Diesel	1		23	10	
Dump Truck	350	Diesel	1		23	10	
Wire Truck/Trailer	350	Diesel	2		23	10	
Sock Line Puller	300	Diesel	1		16	10	
Bull Wheel Puller	350	Diesel	1		16	10	
Static Truck/ Tensioner	350	Diesel	1		23	10	0.33 Mile
Backhoe/Front Loader	125	Diesel	1		23	10	
Lowboy Truck/Trailer	450	Diesel	2		23	10	
Hughes 500 E Helicopter		Jet A	1		6	10	
Fuel, Helicopter Support Truck	300	Diesel	1		6	10	
Guard Structure Removal (14)				**20**	**4**		**25 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		4	10	
1-Ton Truck, 4x4	300	Gas	1		4	10	
Compressor Trailer	60	Diesel	1		4	10	
Manlift/Bucket Truck	250	Diesel	1		4	10	7 Structures
Boom/Crane Truck	350	Diesel	1		4	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		4	10	
Restoration (15)				**8**	**8**		**7.5 Miles**
1-Ton Truck, 4x4	300	Gas	2		8	10	
Backhoe/Front Loader	125	Diesel	1		8	10	
Motor Grader	250	Diesel	1		8	10	
Water Truck	300	Diesel	1		8	10	1 Mile
Drum Type Compactor	100	Diesel	1		8	10	
Lowboy Truck/Trailer	450	Diesel	1		8	10	
Vault Installation (16)				**20**	**8**		**2 Vaults**
1-Ton Truck, 4x4	300	Gas	2		8	10	
Backhoe/Front Loader	125	Diesel	1		8	10	0.33 Vaults
Excavator	250	Diesel	1		5	10	
Dump Truck	350	Diesel	3		8	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 1 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Water Truck	300	Diesel	1		4	10	
Crane (L)	500	Diesel	1		2	10	
Concrete Mixer Truck	350	Diesel	3		1	10	
Lowboy Truck/Trailer	450	Diesel	1		2	10	
Flat Bed Truck/Trailer	400	Diesel	3		2	10	
Duct Bank Installation (17)				**20**	**2**		**400 Trench Feet**
1-Ton Truck, 4x4	300	Gas	2		2	10	
Compressor Trailer	60	Diesel	1		2	10	
Backhoe/Front Loader	125	Diesel	1		2	10	
Dump Truck	350	Diesel	3		2	10	
Pipe Truck/Trailer	275	Diesel	1		2	10	250 Feet
Water Truck	300	Diesel	1		2	10	
Concrete Mixer Truck	350	Diesel	3		2	10	
Lowboy Truck/Trailer	450	Diesel	1		1	10	
Install Underground Cable (18)				**20**	**1**		**400 Circuit Feet**
1-Ton Truck, 4x4	300	Gas	2		1	10	
Manlift/Bucket Truck	250	Diesel	1		1	10	
Boom/Crane Truck	350	Diesel	1		1	10	
Wire Truck/Trailer	350	Diesel	2		1	10	0.33 Mile
Puller	350	Diesel	1		1	10	
Static Truck/ Tensioner	350	Diesel	1		1	10	

Crew Size Assumptions:

#1 Survey = two 4-man crews
#2 Each Yard = one 4-man crew
#3 Right-of-way Clearing = two 8-man crews
#4 Roads & Landing Work = two 8-man crews
#5 Guard Structure Installation = two 10-man crews
#6 Install Foundations for TSPs = two 10-man crews
#7TSP Haul = one 4-man crew
#8 TSP Assembly = two 10-man crews
#9 TSP Erection = two 10-man crews
#10 LWS Pole Haul = one 4-man crew
#11 LWS Pole Assembly = two 10-man crews
#12 Install LWS Pole = two 10-man crews
#13 Conductor & GW Installation = two 10-man crews
#14 Guard Structure Removal = two 10-man crews
#15 Restoration = one 8-man crew
#16 Vault Installation = two 10-man crews
#17 Duct Bank Installation = two 10-man crews
#18 Install Underground Cable = two 10-man crews

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 2 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**5**		**4.3 Miles**
1-Ton Truck, 4x4	300	Gas	2		5	10	1 Mile
R/W Clearing (2)				**8**	**19**		**4.3 Miles**
1-Ton Truck, 4x4	300	Gas	1		19	10	0.25 Mile
Backhoe/Front Loader	125	Diesel	1		19	10	
Track Type Dozer	150	Diesel	1		19	10	
Motor Grader	250	Diesel	1		19	10	
Water Truck	300	Diesel	1		19	10	
Lowboy Truck/Trailer	450	Diesel	1		19	10	
Roads & Landing Work (3)				**8**	**50**		**0.3 Miles & 145 Pads**
2-Ton Truck, 4x4	300	Gas	2		50	10	
Backhoe/Front Loader	125	Diesel	1		50	10	
Track Type Dozer	150	Diesel	1		50	10	
Motor Grader	250	Diesel	1		50	10	
Water Truck	300	Diesel	1		50	10	
Drum Type Compactor	100	Diesel	1		50	10	
Excavator	250	Diesel	1		40	10	
Lowboy Truck/Trailer	450	Diesel	1		50	10	
Guard Structure Installation (4)				**20**	**9**		**41 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		9	10	5 Structures
1-Ton Truck, 4x4	300	Gas	1		9	10	
Compressor Trailer	60	Diesel	1		9	10	
Manlift/Bucket Truck	250	Diesel	1		9	10	
Boom/Crane Truck	350	Diesel	1		9	10	
Auger Truck	210	Diesel	1		9	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		9	10	
Install TSP Foundations (5)				**20**	**10**		**5 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		10	10	0.5 TSPs
Boom/Crane Truck	350	Diesel	1		10	10	
Backhoe/Front Loader	125	Diesel	1		10	10	
Auger Truck	210	Diesel	1		7	10	
Water Truck	300	Diesel	1		10	10	
Dump Truck	350	Diesel	1		10	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 2 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Concrete Mixer Truck	350	Diesel	3		7	10	
TSP Haul (6)				**4**	**2**		**5 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		2	10	
Boom/Crane Truck	350	Diesel	1		2	10	4 TSPs
Flat Bed Pole Truck	400	Diesel	1		2	10	
TSP Assembly (7)				**20**	**5**		**5 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		5	10	
1-Ton Truck, 4x4	300	Gas	2		5	10	1 TSP
Compressor Trailer	60	Diesel	1		5	10	
Boom/Crane Truck	350	Diesel	1		5	10	
TSP Erection (8)				**20**	**5**		**5 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		5	10	
1-Ton Truck, 4x4	300	Gas	2		5	10	1 TSP
Compressor Trailer	60	Diesel	1		5	10	
Boom/Crane Truck	350	Diesel	1		5	10	
LWS Pole Haul (9)				**4**	**28**		**140 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	1		28	10	
Boom/Crane Truck	350	Diesel	1		28	10	5 Poles
Flat Bed Pole Truck	400	Diesel	1		28	10	
LWS Pole Assembly (10)				**20**	**35**		**140 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	2		35	10	
1-Ton Truck, 4x4	300	Gas	2		35	10	4 Poles
Compressor Trailer	60	Diesel	1		35	10	
Boom/Crane Truck	350	Diesel	1		35	10	
Install LWS Pole (11)				**20**	**35**		**140 LWS Poles**
1-Ton Truck, 4x4	300	Gas	1		35	10	
Manlift/Bucket Truck	250	Diesel	1		35	10	
Boom/Crane Truck	350	Diesel	1		35	10	
Auger Truck	210	Diesel	1		35	10	4 Poles
Backhoe/Front Loader	125	Diesel	1		35	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		35	10	
Install Conductor (12)				**20**	**14**		**4.3 Circuit Miles**
1-Ton Truck, 4x4	300	Gas	3		14	10	
Manlift/Bucket Truck	250	Diesel	4		14	10	
Boom/Crane Truck	350	Diesel	1		14	10	0.33 Mile
Dump Truck	350	Diesel	1		14	10	
Wire Truck/Trailer	350	Diesel	2		14	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 2 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Sock Line Puller	300	Diesel	1		8	10	
Bull Wheel Puller	350	Diesel	1		8	10	
Static Truck/ Tensioner	350	Diesel	1		14	10	
Backhoe/Front Loader	125	Diesel	1		14	10	
Lowboy Truck/Trailer	450	Diesel	2		14	10	
Hughes 500 E Helicopter		Jet A	1		4	10	
Fuel, Helicopter Support Truck	300	Diesel	1		4	10	
Guard Structure Removal (13)				**20**	**6**		**41 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		6	10	
1-Ton Truck, 4x4	300	Gas	1		6	10	
Compressor Trailer	60	Diesel	1		6	10	
Manlift/Bucket Truck	250	Diesel	1		6	10	7 Structures
Boom/Crane Truck	350	Diesel	1		6	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		6	10	
Restoration (14)				**8**	**5**		**4.3 Miles**
1-Ton Truck, 4x4	300	Gas	2		5	10	
Backhoe/Front Loader	125	Diesel	1		5	10	
Motor Grader	250	Diesel	1		5	10	
Water Truck	300	Diesel	1		5	10	1 Mile
Drum Type Compactor	100	Diesel	1		5	10	
Lowboy Truck/Trailer	450	Diesel	1		5	10	

Crew Size Assumptions:

#1 Survey = one 4-man crew
#2 Right-of-way Clearing = one 8-man crew
#3 Roads & Landing Work = one 8-man crew
#4 Guard Structure Installation = two 10-man crews
#5 Install Foundations for TSPs = two 10-man crews
#6 TSP Haul = one 4-man crew
#7 TSP Assembly = two 10-man crews
#8 TSP Erection = two 10-man crews
#9 LWS Haul = one 4-man crew
#10 LWS Assembly = two 10-man crews
#11 Install LWS Pole = two 10-man crews
#12 Conductor & GW Installation = two 10-man crews
#13 Guard Structure Removal = two 10-man crews
#14 Restoration = one 8-man crew

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 3 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**1**		**1.03 Miles**
1-Ton Truck, 4x4	300	Gas	2		1	10	1 Mile
R/W Clearing (2)				**8**	**4**		**1.03 Miles**
1-Ton Truck, 4x4	300	Gas	1		4	10	0.25 Mile
Backhoe/Front Loader	125	Diesel	1		4	10	
Track Type Dozer	150	Diesel	1		4	10	
Motor Grader	250	Diesel	1		4	10	
Water Truck	300	Diesel	1		4	10	
Lowboy Truck/Trailer	450	Diesel	1		4	10	
Roads & Landing Work (3)				**8**	**7**		**0 Miles & 26 Pads**
2-Ton Truck, 4x4	300	Gas	2		7	10	
Backhoe/Front Loader	125	Diesel	1		7	10	
Track Type Dozer	150	Diesel	1		7	10	
Motor Grader	250	Diesel	1		7	10	
Water Truck	300	Diesel	1		7	10	
Drum Type Compactor	100	Diesel	1		7	10	
Excavator	250	Diesel	1		5	10	
Lowboy Truck/Trailer	450	Diesel	1		7	10	
Guard Structure Installation (4)				**20**	**2**		**6 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		2	10	5 Structures
1-Ton Truck, 4x4	300	Gas	1		2	10	
Compressor Trailer	60	Diesel	1		2	10	
Manlift/Bucket Truck	250	Diesel	1		2	10	
Boom/Crane Truck	350	Diesel	1		2	10	
Auger Truck	210	Diesel	1		2	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		2	10	
Install TSP Foundations (5)				**20**	**12**		**6 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		12	10	0.5 TSPs
Boom/Crane Truck	350	Diesel	1		12	10	
Backhoe/Front Loader	125	Diesel	1		12	10	
Auger Truck	210	Diesel	1		9	10	
Water Truck	300	Diesel	1		12	10	
Dump Truck	350	Diesel	1		12	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 3 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Concrete Mixer Truck	350	Diesel	3		9	10	
TSP Haul (6)				**4**	**2**		**6 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		2	10	
Boom/Crane Truck	350	Diesel	1		2	10	4 TSPs
Flat Bed Pole Truck	400	Diesel	1		2	10	
TSP Assembly (7)				**20**	**6**		**6 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		6	10	
1-Ton Truck, 4x4	300	Gas	2		6	10	1 TSP
Compressor Trailer	60	Diesel	1		6	10	
Boom/Crane Truck	350	Diesel	1		6	10	
TSP Erection (8)				**20**	**6**		**6 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		6	10	
1-Ton Truck, 4x4	300	Gas	2		6	10	1 TSP
Compressor Trailer	60	Diesel	1		6	10	
Boom/Crane Truck	350	Diesel	1		6	10	
LWS Pole Haul (9)				**4**	**6**		**29 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	1		6	10	
Boom/Crane Truck	350	Diesel	1		6	10	5 Poles
Flat Bed Pole Truck	400	Diesel	1		6	10	
LWS Pole Assembly (10)				**20**	**8**		**29 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	2		8	10	
1-Ton Truck, 4x4	300	Gas	2		8	10	4 Poles
Compressor Trailer	60	Diesel	1		8	10	
Boom/Crane Truck	350	Diesel	1		8	10	
Install LWS Pole (11)				**20**	**8**		**29 LWS Poles**
1-Ton Truck, 4x4	300	Gas	1		8	10	
Manlift/Bucket Truck	250	Diesel	1		8	10	
Boom/Crane Truck	350	Diesel	1		8	10	
Auger Truck	210	Diesel	1		8	10	4 Poles
Backhoe/Front Loader	125	Diesel	1		8	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		8	10	
Install Conductor (12)				**20**	**4**		**1.03 Circuit Miles**
1-Ton Truck, 4x4	300	Gas	3		4	10	
Manlift/Bucket Truck	250	Diesel	4		4	10	
Boom/Crane Truck	350	Diesel	1		4	10	0.33 Mile
Dump Truck	350	Diesel	1		4	10	
Wire Truck/Trailer	350	Diesel	2		4	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 3 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Sock Line Puller	300	Diesel	1		3	10	
Bull Wheel Puller	350	Diesel	1		3	10	
Static Truck/ Tensioner	350	Diesel	1		4	10	
Backhoe/Front Loader	125	Diesel	1		4	10	
Lowboy Truck/Trailer	450	Diesel	2		4	10	
Hughes 500 E Helicopter		Jet A	1		1	10	
Fuel, Helicopter Support Truck	300	Diesel	1		1	10	
Guard Structure Removal (13)				**20**	**1**		**6 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		1	10	
1-Ton Truck, 4x4	300	Gas	1		1	10	
Compressor Trailer	60	Diesel	1		1	10	
Manlift/Bucket Truck	250	Diesel	1		1	10	7 Structures
Boom/Crane Truck	350	Diesel	1		1	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		1	10	
Restoration (14)				**8**	**1**		**1.03 Miles**
1-Ton Truck, 4x4	300	Gas	2		1	10	
Backhoe/Front Loader	125	Diesel	1		1	10	
Motor Grader	250	Diesel	1		1	10	
Water Truck	300	Diesel	1		1	10	1 Mile
Drum Type Compactor	100	Diesel	1		1	10	
Lowboy Truck/Trailer	450	Diesel	1		1	10	

Crew Size Assumptions:

#1 Survey = one 4-man crew
#2 Right-of-way Clearing = one 8-man crew
#3 Roads & Landing Work = one 8-man crew
#4 Guard Structure Installation = two 10-man crews
#5 Install Foundations for TSPs = two 10-man crews
#6 TSP Haul = one 4-man crew
#7 TSP Assembly = two 10-man crews
#8 TSP Erection = two 10-man crews
#9 LWS Pole Haul = one 4-man crew
#10 LWS Pole Assembly = two 10-man crews
#11 Install LWS Pole = two 10-man crews
#12 Conductor & GW Installation = two 10-man crews
#13 Guard Structure Removal = two 10-man crews
#14 Restoration = one 8-man crew

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 4 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**3**		**2.44 Miles**
1-Ton Truck, 4x4	300	Gas	2		3	10	1 Mile
R/W Clearing (2)				**8**	**10**		**2.44 Miles**
1-Ton Truck, 4x4	300	Gas	1		10	10	0.25 Mile
Backhoe/Front Loader	125	Diesel	1		10	10	
Track Type Dozer	150	Diesel	1		10	10	
Motor Grader	250	Diesel	1		10	10	
Water Truck	300	Diesel	1		10	10	
Lowboy Truck/Trailer	450	Diesel	1		10	10	
Roads & Landing Work (3)				**8**	**21**		**0.8 Miles & 80 Pads**
2-Ton Truck, 4x4	300	Gas	2		21	10	
Backhoe/Front Loader	125	Diesel	1		21	10	
Track Type Dozer	150	Diesel	1		21	10	
Motor Grader	250	Diesel	1		21	10	
Water Truck	300	Diesel	1		21	10	
Drum Type Compactor	100	Diesel	1		21	10	
Excavator	250	Diesel	1		16	10	
Lowboy Truck/Trailer	450	Diesel	1		21	10	
Guard Structure Installation (4)				**20**	**4**		**17 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		4	10	5 Structures
1-Ton Truck, 4x4	300	Gas	1		4	10	
Compressor Trailer	60	Diesel	1		4	10	
Manlift/Bucket Truck	250	Diesel	1		4	10	
Boom/Crane Truck	350	Diesel	1		4	10	
Auger Truck	210	Diesel	1		4	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		4	10	
Install TSP Foundations (5)				**20**	**20**		**10 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		20	10	0.5 TSPs
Boom/Crane Truck	350	Diesel	1		20	10	
Backhoe/Front Loader	125	Diesel	1		20	10	
Auger Truck	210	Diesel	1		16	10	
Water Truck	300	Diesel	1		20	10	
Dump Truck	350	Diesel	1		20	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 4 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Concrete Mixer Truck	350	Diesel	3		16	10	
TSP Haul (6)				**4**	**3**		**10 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		3	10	
Boom/Crane Truck	350	Diesel	1		3	10	4 TSPs
Flat Bed Pole Truck	400	Diesel	1		3	10	
TSP Assembly (7)				**20**	**10**		**10 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		10	10	
1-Ton Truck, 4x4	300	Gas	2		10	10	1 TSP
Compressor Trailer	60	Diesel	1		10	10	
Boom/Crane Truck	350	Diesel	1		10	10	
TSP Erection (8)				**20**	**10**		**10 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		10	10	
1-Ton Truck, 4x4	300	Gas	2		10	10	1 TSP
Compressor Trailer	60	Diesel	1		10	10	
Boom/Crane Truck	350	Diesel	1		10	10	
LWS Pole Haul (9)				**4**	**14**		**70 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	1		14	10	
Boom/Crane Truck	350	Diesel	1		14	10	5 Poles
Flat Bed Pole Truck	400	Diesel	1		14	10	
LWS Pole Assembly (10)				**20**	**18**		**70 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	2		18	10	
1-Ton Truck, 4x4	300	Gas	2		18	10	4 Poles
Compressor Trailer	60	Diesel	1		18	10	
Boom/Crane Truck	350	Diesel	1		18	10	
Install LWS Pole (11)				**20**	**18**		**70 LWS Poles**
1-Ton Truck, 4x4	300	Gas	1		18	10	
Manlift/Bucket Truck	250	Diesel	1		18	10	
Boom/Crane Truck	350	Diesel	1		18	10	
Auger Truck	210	Diesel	1		18	10	4 Poles
Backhoe/Front Loader	125	Diesel	1		18	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		18	10	
Install Conductor (12)				**20**	**8**		**2.44 Circuit Miles**
1-Ton Truck, 4x4	300	Gas	3		8	10	
Manlift/Bucket Truck	250	Diesel	4		8	10	
Boom/Crane Truck	350	Diesel	1		8	10	0.33 Mile
Dump Truck	350	Diesel	1		8	10	
Wire Truck/Trailer	350	Diesel	2		8	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 4 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Sock Line Puller	300	Diesel	1		6	10	
Bull Wheel Puller	350	Diesel	1		6	10	
Static Truck/ Tensioner	350	Diesel	1		8	10	
Backhoe/Front Loader	125	Diesel	1		8	10	
Lowboy Truck/Trailer	450	Diesel	2		8	10	
Hughes 500 E Helicopter		Jet A	1		2	10	
Fuel, Helicopter Support Truck	300	Diesel	1		2	10	
Guard Structure Removal (13)				**8**	**3**		**17 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		3	10	
1-Ton Truck, 4x4	300	Gas	1		3	10	
Compressor Trailer	60	Diesel	1		3	10	
Manlift/Bucket Truck	250	Diesel	1		3	10	7 Structures
Boom/Crane Truck	350	Diesel	1		3	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		3	10	
Restoration (14)				**8**	**3**		**2.44 Miles**
1-Ton Truck, 4x4	300	Gas	2		3	10	
Backhoe/Front Loader	125	Diesel	1		3	10	
Motor Grader	250	Diesel	1		3	10	
Water Truck	300	Diesel	1		3	10	1 Mile
Drum Type Compactor	100	Diesel	1		3	10	
Lowboy Truck/Trailer	450	Diesel	1		3	10	

Crew Size Assumptions:

#1 Survey = one 4-man crew
#2 Right-of-way Clearing = one 8-man crew
#3 Roads & Landing Work = one 8-man crew
#4 Guard Structure Installation = two 10-man crews
#5 Install Foundations for TSPs = two 10-man crews
#6 TSP Haul = one 4-man crew
#7 TSP Assembly = two 10-man crews
#8 TSP Erection = two 10-man crews
#9 LWS Pole Haul = one 4-man crew
#10 LWS Pole Assembly = two 10-man crews
#11 Install LWS Pole = two 10-man crews
#12 Conductor & GW Installation = two 10-man crews
#13 Guard Structure Removal = two 10-man crews
#14 Restoration = one 8-man crew

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 5 AND 5A 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**6**		**6 Miles**
1-Ton Truck, 4x4	300	Gas	2		6	10	1 Mile
R/W Clearing (2)				**8**	**24**		**6 Miles**
1-Ton Truck, 4x4	300	Gas	1		24	10	0.25 Mile
Backhoe/Front Loader	125	Diesel	1		24	10	
Track Type Dozer	150	Diesel	1		24	10	
Motor Grader	250	Diesel	1		24	10	
Water Truck	300	Diesel	1		24	10	
Lowboy Truck/Trailer	450	Diesel	1		24	10	
Roads & Landing Work (3)				**8**	**60**		**1.4 Miles & 180 Pads**
2-Ton Truck, 4x4	300	Gas	2		60	10	
Backhoe/Front Loader	125	Diesel	1		60	10	
Track Type Dozer	150	Diesel	1		60	10	
Motor Grader	250	Diesel	1		60	10	
Water Truck	300	Diesel	1		60	10	
Drum Type Compactor	100	Diesel	1		60	10	
Excavator	250	Diesel	1		45	10	
Lowboy Truck/Trailer	450	Diesel	1		60	10	
Guard Structure Installation (4)				**20**	**3**		**11 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		3	10	5 Structures
1-Ton Truck, 4x4	300	Gas	1		3	10	
Compressor Trailer	60	Diesel	1		3	10	
Manlift/Bucket Truck	250	Diesel	1		3	10	
Boom/Crane Truck	350	Diesel	1		3	10	
Auger Truck	210	Diesel	1		3	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		3	10	
Install TSP Foundations (5)				**20**	**110**		**55 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		110	10	0.5 TSPs
Boom/Crane Truck	350	Diesel	1		110	10	
Backhoe/Front Loader	125	Diesel	1		110	10	
Auger Truck	210	Diesel	1		75	10	
Water Truck	300	Diesel	1		110	10	
Dump Truck	350	Diesel	1		110	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 5 AND 5A 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Concrete Mixer Truck	350	Diesel	3		110	10	
TSP Haul (6)				**4**	**14**		**55 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		14	10	
Boom/Crane Truck	350	Diesel	1		14	10	4 TSPs
Flat Bed Pole Truck	400	Diesel	1		14	10	
TSP Assembly (7)				**20**	**55**		**55 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		55	10	
1-Ton Truck, 4x4	300	Gas	2		55	10	1 TSP
Compressor Trailer	60	Diesel	1		55	10	
Boom/Crane Truck	350	Diesel	1		55	10	
TSP Erection (8)				**20**	**55**		**55 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		55	10	
1-Ton Truck, 4x4	300	Gas	2		55	10	1 TSP
Compressor Trailer	60	Diesel	1		55	10	
Boom/Crane Truck	350	Diesel	1		55	10	
LWS Pole Haul (9)				**4**	**25**		**125 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	1		25	10	
Boom/Crane Truck	350	Diesel	1		25	10	5 Poles
Flat Bed Pole Truck	400	Diesel	1		25	10	
LWS Pole Assembly (10)				**20**	**32**		**125 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	2		32	10	
1-Ton Truck, 4x4	300	Gas	2		32	10	4 Poles
Compressor Trailer	60	Diesel	1		32	10	
Boom/Crane Truck	350	Diesel	1		32	10	
Install LWS Pole (11)				**20**	**32**		**125 LWS Poles**
1-Ton Truck, 4x4	300	Gas	1		32	10	
Manlift/Bucket Truck	250	Diesel	1		32	10	
Boom/Crane Truck	350	Diesel	1		32	10	
Auger Truck	210	Diesel	1		32	10	4 Poles
Backhoe/Front Loader	125	Diesel	1		32	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		32	10	
Install Conductor (12)				**20**	**19**		**6 Circuit Miles**
1-Ton Truck, 4x4	300	Gas	3		19	10	
Manlift/Bucket Truck	250	Diesel	4		19	10	
Boom/Crane Truck	350	Diesel	1		19	10	0.33 Mile
Dump Truck	350	Diesel	1		19	10	
Wire Truck/Trailer	350	Diesel	2		19	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 5 AND 5A 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Sock Line Puller	300	Diesel	1		16	10	
Bull Wheel Puller	350	Diesel	1		16	10	
Static Truck/ Tensioner	350	Diesel	1		19	10	
Backhoe/Front Loader	125	Diesel	1		19	10	
Lowboy Truck/Trailer	450	Diesel	2		19	10	
Hughes 500 E Helicopter		Jet A	1		5	10	
Fuel, Helicopter Support Truck	300	Diesel	1		5	10	
Guard Structure Removal (13)				**20**	**2**		**11 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		2	10	
1-Ton Truck, 4x4	300	Gas	1		2	10	
Compressor Trailer	60	Diesel	1		2	10	
Manlift/Bucket Truck	250	Diesel	1		2	10	7 Structures
Boom/Crane Truck	350	Diesel	1		2	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		2	10	
Restoration (14)				**8**	**6**		**6 Miles**
1-Ton Truck, 4x4	300	Gas	2		6	10	
Backhoe/Front Loader	125	Diesel	1		6	10	
Motor Grader	250	Diesel	1		6	10	
Water Truck	300	Diesel	1		6	10	1 Mile
Drum Type Compactor	100	Diesel	1		6	10	
Lowboy Truck/Trailer	450	Diesel	1		6	10	

Crew Size Assumptions:

#1 Survey = one 4-man crew
#2 Right-of-way Clearing = one 8-man crew
#3 Roads & Landing Work = one 8-man crew
#4 Guard Structure Installation = two 10-man crews
#5 Install Foundations for TSPs = two 10-man crews
#6 TSP Haul = one 4-man crew
#7 TSP Assembly = two 10-man crews
#8 TSP Erection = two 10-man crews
#9 LWS Pole Haul = one 4-man crews
#10 LWS Pole Assembly = two 10-man crews
#11 Install LWS Pole = two 10-man crews
#12 Conductor & GW Installation = two 10-man crews
#13 Guard Structure Removal = two 10-man crews
#14 Restoration = one 8-man crew

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 6 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**2**		**1.3 Miles**
1-Ton Truck, 4x4	300	Gas	2		2	10	1 Mile
R/W Clearing (2)				**8**	**6**		**1.3 Miles**
1-Ton Truck, 4x4	300	Gas	1		6	10	0.25 Mile
Backhoe/Front Loader	125	Diesel	1		6	10	
Track Type Dozer	150	Diesel	1		6	10	
Motor Grader	250	Diesel	1		6	10	
Water Truck	300	Diesel	1		6	10	
Lowboy Truck/Trailer	450	Diesel	1		6	10	
Roads & Landing Work (3)				**8**	**25**		**2.1 Miles & 42 Pads**
2-Ton Truck, 4x4	300	Gas	2		25	10	
Backhoe/Front Loader	125	Diesel	1		25	10	
Track Type Dozer	150	Diesel	1		25	10	
Motor Grader	250	Diesel	1		25	10	
Water Truck	300	Diesel	1		25	10	
Drum Type Compactor	100	Diesel	1		25	10	
Excavator	250	Diesel	1		20	10	
Lowboy Truck/Trailer	450	Diesel	1		25	10	
Guard Structure Installation (4)				**20**	**2**		**5 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		2	10	3 Structures
1-Ton Truck, 4x4	300	Gas	1		2	10	
Compressor Trailer	60	Diesel	1		2	10	
Manlift/Bucket Truck	250	Diesel	1		2	10	
Boom/Crane Truck	350	Diesel	1		2	10	
Auger Truck	210	Diesel	1		2	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		2	10	
Install TSP Foundations (5)				**20**	**20**		**9 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		20	10	0.5 TSPs
Boom/Crane Truck	350	Diesel	1		20	10	
Backhoe/Front Loader	125	Diesel	1		20	10	
Auger Truck	210	Diesel	1		16	10	
Water Truck	300	Diesel	1		20	10	
Dump Truck	350	Diesel	1		20	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 6 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Concrete Mixer Truck	350	Diesel	3		20	10	
TSP Haul (6)				**4**	**3**		**9 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		3	10	
Boom/Crane Truck	350	Diesel	1		3	10	4 TSPs
Flat Bed Pole Truck	400	Diesel	1		3	10	
TSP Assembly (7)				**20**	**18**		**9 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		18	10	
1-Ton Truck, 4x4	300	Gas	2		18	10	0.5 TSP
Compressor Trailer	60	Diesel	1		18	10	
Boom/Crane Truck	350	Diesel	1		18	10	
TSP Erection (8)				**20**	**18**		**9 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		18	10	
1-Ton Truck, 4x4	300	Gas	2		18	10	0.5 TSP
Compressor Trailer	60	Diesel	1		18	10	
Boom/Crane Truck	350	Diesel	1		18	10	
LWS Pole Haul (9)				**4**	**7**		**33 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	1		7	10	
Boom/Crane Truck	350	Diesel	1		7	10	5 Poles
Flat Bed Pole Truck	400	Diesel	1		7	10	
LWS Pole Assembly (10)				**20**	**11**		**33 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	2		11	10	
1-Ton Truck, 4x4	300	Gas	2		11	10	3 Poles
Compressor Trailer	60	Diesel	1		11	10	
Boom/Crane Truck	350	Diesel	1		11	10	
Install LWS Pole (11)				**20**	**11**		**33 LWS Poles**
1-Ton Truck, 4x4	300	Gas	1		11	10	
Manlift/Bucket Truck	250	Diesel	1		11	10	
Boom/Crane Truck	350	Diesel	1		11	10	
Auger Truck	210	Diesel	1		11	10	3 Poles
Backhoe/Front Loader	125	Diesel	1		11	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		11	10	
Install Conductor (12)				**20**	**6**		**1.3 Circuit Miles**
1-Ton Truck, 4x4	300	Gas	3		6	10	
Manlift/Bucket Truck	250	Diesel	4		6	10	
Boom/Crane Truck	350	Diesel	1		6	10	0.25 Mile
Dump Truck	350	Diesel	1		6	10	
Wire Truck/Trailer	350	Diesel	2		6	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 6 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Sock Line Puller	300	Diesel	1		6	10	
Bull Wheel Puller	350	Diesel	1		6	10	
Static Truck/ Tensioner	350	Diesel	1		6	10	
Backhoe/Front Loader	125	Diesel	1		6	10	
Lowboy Truck/Trailer	450	Diesel	2		6	10	
Hughes 500 E Helicopter		Jet A	1		1	10	
Fuel, Helicopter Support Truck	300	Diesel	1		1	10	
Guard Structure Removal (13)				**20**	**1**		**5 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		1	10	
1-Ton Truck, 4x4	300	Gas	1		1	10	
Compressor Trailer	60	Diesel	1		1	10	
Manlift/Bucket Truck	250	Diesel	1		1	10	7 Structures
Boom/Crane Truck	350	Diesel	1		1	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		1	10	
Restoration (14)				**8**	**2**		**1.3 Miles**
1-Ton Truck, 4x4	300	Gas	2		2	10	
Backhoe/Front Loader	125	Diesel	1		2	10	
Motor Grader	250	Diesel	1		2	10	
Water Truck	300	Diesel	1		2	10	1 Mile
Drum Type Compactor	100	Diesel	1		2	10	
Lowboy Truck/Trailer	450	Diesel	1		2	10	

Crew Size Assumptions:

#1 Survey = one 4-man crew
#2 Right-of-way Clearing = one 8-man crew
#3 Roads & Landing Work = one 8-man crew
#4 Guard Structure Installation = two 10-man crews
#5 Install Foundations for TSPs = two 10-man crews
#6 TSP Haul = one 4-man crew
#7 TSP Assembly = two 10-man crews
#8 TSP Erection = two 10-man crews
#9 LWS Pole Haul = one 4-man crews
#10 LWS Pole Assembly = two 10-man crews
#11 Install LWS Pole = two 10-man crews
#12 Conductor & GW Installation = two 10-man crews
#13 Guard Structure Removal = two 10-man crews
#14 Restoration = one 8-man crew

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 7 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**2**		**1.6 Miles**
1-Ton Truck, 4x4	300	Gas	2		2	10	1 Mile
R/W Clearing (2)				**8**	**7**		**1.6 Miles**
1-Ton Truck, 4x4	300	Gas	1		7	10	0.25 Mile
Backhoe/Front Loader	125	Diesel	1		7	10	
Track Type Dozer	150	Diesel	1		7	10	
Motor Grader	250	Diesel	1		7	10	
Water Truck	300	Diesel	1		7	10	
Lowboy Truck/Trailer	450	Diesel	1		7	10	
Roads & Landing Work (3)				**8**	**22**		**0.2 Miles & 61 Pads**
2-Ton Truck, 4x4	300	Gas	2		22	10	
Backhoe/Front Loader	125	Diesel	1		22	10	
Track Type Dozer	150	Diesel	1		22	10	
Motor Grader	250	Diesel	1		22	10	
Water Truck	300	Diesel	1		22	10	
Drum Type Compactor	100	Diesel	1		22	10	
Excavator	250	Diesel	1		16	10	
Lowboy Truck/Trailer	450	Diesel	1		22	10	
Guard Structure Installation (4)				**20**	**3**		**9 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		3	10	3 Structures
1-Ton Truck, 4x4	300	Gas	1		3	10	
Compressor Trailer	60	Diesel	1		3	10	
Manlift/Bucket Truck	250	Diesel	1		3	10	
Boom/Crane Truck	350	Diesel	1		3	10	
Auger Truck	210	Diesel	1		3	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		3	10	
Install TSP Foundations (5)				**20**	**40**		**20 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		40	10	0.5 TSPs
Boom/Crane Truck	350	Diesel	1		40	10	
Backhoe/Front Loader	125	Diesel	1		40	10	
Auger Truck	210	Diesel	1		25	10	
Water Truck	300	Diesel	1		40	10	
Dump Truck	350	Diesel	1		40	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 7 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Concrete Mixer Truck	350	Diesel	3		40	10	
TSP Haul (6)				**4**	**5**		**20 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		5	10	
Boom/Crane Truck	350	Diesel	1		5	10	4 TSPs
Flat Bed Pole Truck	400	Diesel	1		5	10	
TSP Assembly (7)				**20**	**20**		**20 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		20	10	
1-Ton Truck, 4x4	300	Gas	2		20	10	1 TSP
Compressor Trailer	60	Diesel	1		20	10	
Boom/Crane Truck	350	Diesel	1		20	10	
TSP Erection (8)				**20**	**20**		**20 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		20	10	
1-Ton Truck, 4x4	300	Gas	2		20	10	1 TSP
Compressor Trailer	60	Diesel	1		20	10	
Boom/Crane Truck	350	Diesel	1		20	10	
LWS Pole Haul (9)				**4**	**9**		**41 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	1		9	10	
Boom/Crane Truck	350	Diesel	1		9	10	5 Poles
Flat Bed Pole Truck	400	Diesel	1		9	10	
LWS Pole Assembly (10)				**20**	**11**		**41 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	2		11	10	
1-Ton Truck, 4x4	300	Gas	2		11	10	4 Poles
Compressor Trailer	60	Diesel	1		11	10	
Boom/Crane Truck	350	Diesel	1		11	10	
Install LWS Pole (11)				**20**	**11**		**41 LWS Poles**
1-Ton Truck, 4x4	300	Gas	1		11	10	
Manlift/Bucket Truck	250	Diesel	1		11	10	
Boom/Crane Truck	350	Diesel	1		11	10	
Auger Truck	210	Diesel	1		11	10	4 Poles
Backhoe/Front Loader	125	Diesel	1		11	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		11	10	
Install Conductor (12)				**20**	**5**		**1.6 Circuit Miles**
1-Ton Truck, 4x4	300	Gas	3		5	10	
Manlift/Bucket Truck	250	Diesel	4		5	10	
Boom/Crane Truck	350	Diesel	1		5	10	0.33 Mile
Dump Truck	350	Diesel	1		5	10	
Wire Truck/Trailer	350	Diesel	2		5	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 7 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Sock Line Puller	300	Diesel	1		4	10	
Bull Wheel Puller	350	Diesel	1		4	10	
Static Truck/ Tensioner	350	Diesel	1		5	10	
Backhoe/Front Loader	125	Diesel	1		5	10	
Lowboy Truck/Trailer	450	Diesel	2		5	10	
Hughes 500 E Helicopter		Jet A	1		2	10	
Fuel, Helicopter Support Truck	300	Diesel	1		2	10	
Guard Structure Removal (13)				**20**	**2**		**9 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		2	10	
1-Ton Truck, 4x4	300	Gas	1		2	10	
Compressor Trailer	60	Diesel	1		2	10	
Manlift/Bucket Truck	250	Diesel	1		2	10	7 Structures
Boom/Crane Truck	350	Diesel	1		2	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		2	10	
Restoration (14)				**8**	**2**		**1.6 Miles**
1-Ton Truck, 4x4	300	Gas	2		2	10	
Backhoe/Front Loader	125	Diesel	1		2	10	
Motor Grader	250	Diesel	1		2	10	
Water Truck	300	Diesel	1		2	10	1 Mile
Drum Type Compactor	100	Diesel	1		2	10	
Lowboy Truck/Trailer	450	Diesel	1		2	10	

Crew Size Assumptions:

#1 Survey = one 4-man crew
#2 Right-of-way Clearing = one 8-man crew
#3 Roads & Landing Work = one 8-man crew
#4 Guard Structure Installation = two 10-man crews
#5 Install Foundations for TSPs = two 10-man crews
#6 TSP Haul = one 4-man crew
#7 TSP Assembly = two 10-man crews
#8 TSP Erection = two 10-man crews
#9 LWS Pole Haul = one 4-man crews
#10 LWS Pole Assembly = two 10-man crews
#11 Install LWS Pole = two 10-man crews
#12 Conductor & GW Installation = two 10-man crews
#13 Guard Structure Removal = two 10-man crews
#14 Restoration = one 8-man crew

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 8 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Survey (1)				**4**	**3**		**2.2 Miles**
1-Ton Truck, 4x4	300	Gas	2		3	10	1 Mile
R/W Clearing (2)				**8**	**9**		**2.2 Miles**
1-Ton Truck, 4x4	300	Gas	1		9	10	
Backhoe/Front Loader	125	Diesel	1		9	10	
Track Type Dozer	150	Diesel	1		9	10	0.25 Mile
Motor Grader	250	Diesel	1		9	10	
Water Truck	300	Diesel	1		9	10	
Lowboy Truck/Trailer	450	Diesel	1		9	10	
Roads & Landing Work (3)				**8**	**2**		**2 Pads**
2-Ton Truck, 4x4	300	Gas	2		2	10	
Backhoe/Front Loader	125	Diesel	1		2	10	
Track Type Dozer	150	Diesel	1		2	10	
Motor Grader	250	Diesel	1		2	10	
Water Truck	300	Diesel	1		2	10	
Drum Type Compactor	100	Diesel	1		2	10	
Excavator	250	Diesel	1		2	10	
Lowboy Truck/Trailer	450	Diesel	1		2	10	
Guard Structure Installation (4)				**20**	**1**		**2 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		1	10	
1-Ton Truck, 4x4	300	Gas	1		1	10	
Compressor Trailer	60	Diesel	1		1	10	
Manlift/Bucket Truck	250	Diesel	1		1	10	5 Structures
Boom/Crane Truck	350	Diesel	1		1	10	
Auger Truck	210	Diesel	1		1	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		1	10	
Install TSP Foundations (5)				**20**	**4**		**2 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		4	10	
Boom/Crane Truck	350	Diesel	1		4	10	
Backhoe/Front Loader	125	Diesel	1		4	10	
Auger Truck	210	Diesel	1		4	10	0.5 TSPs
Water Truck	300	Diesel	1		4	10	
Dump Truck	350	Diesel	1		4	10	

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 8 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Concrete Mixer Truck	350	Diesel	3		4	10	
TSP Haul (6)				**4**	**1**		**2 TSPs**
3/4-Ton Truck, 4x4	275	Gas	1		1	10	
Boom/Crane Truck	350	Diesel	1		1	10	4 TSPs
Flat Bed Pole Truck	400	Diesel	1		1	10	
TSP Assembly (7)				**20**	**2**		**2 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		2	10	
1-Ton Truck, 4x4	300	Gas	2		2	10	1 TSP
Compressor Trailer	60	Diesel	1		2	10	
Boom/Crane Truck	350	Diesel	1		2	10	
TSP Erection (8)				**20**	**2**		**2 TSPs**
3/4-Ton Truck, 4x4	275	Gas	2		2	10	
1-Ton Truck, 4x4	300	Gas	2		2	10	1 TSP
Compressor Trailer	60	Diesel	1		2	10	
Boom/Crane Truck	350	Diesel	1		2	10	
Install Conductor (9)				**20**	**2**		**400 Feet**
1-Ton Truck, 4x4	300	Gas	3		2	10	
Manlift/Bucket Truck	250	Diesel	4		2	10	
Boom/Crane Truck	350	Diesel	1		2	10	
Dump Truck	350	Diesel	1		2	10	
Wire Truck/Trailer	350	Diesel	2		2	10	
Sock Line Puller	300	Diesel	1		2	10	
Bull Wheel Puller	350	Diesel	1		2	10	0.33 Mile
Static Truck/ Tensioner	350	Diesel	1		2	10	
Backhoe/Front Loader	125	Diesel	1		2	10	
Lowboy Truck/Trailer	450	Diesel	2		2	10	
Guard Structure Removal (10)				**20**	**1**		**2 Structures**
3/4-Ton Truck, 4x4	275	Gas	1		1	10	
1-Ton Truck, 4x4	300	Gas	1		1	10	
Compressor Trailer	60	Diesel	1		1	10	
Manlift/Bucket Truck	250	Diesel	1		1	10	7 Structures
Boom/Crane Truck	350	Diesel	1		1	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		1	10	
Restoration (11)				**8**	**9**		**2.2 Miles**
1-Ton Truck, 4x4	300	Gas	2		9	10	0.25 Mile

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 8 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
Backhoe/Front Loader	125	Diesel	1		9	10	
Motor Grader	250	Diesel	1		9	10	
Water Truck	300	Diesel	1		9	10	
Drum Type Compactor	100	Diesel	1		9	10	
Lowboy Truck/Trailer	450	Diesel	1		9	10	
Vault Installation (12)				**30**	**28**		**9 Vaults**
1-Ton Truck, 4x4	300	Gas	2		28	10	
Backhoe/Front Loader	125	Diesel	1		28	10	
Excavator	250	Diesel	1		14	10	
Dump Truck	350	Diesel	3		28	10	
Water Truck	300	Diesel	1		28	10	
Crane (L)	500	Diesel	1		14	10	0.33 Vaults
Concrete Mixer Truck	350	Diesel	3		7	10	
Lowboy Truck/Trailer	450	Diesel	1		14	10	
Flat Bed Truck/Trailer	400	Diesel	3		14	10	
Duct Bank Installation (13)				**30**	**43**		**10,544 Trench Feet**
1-Ton Truck, 4x4	300	Gas	2		43	10	
Compressor Trailer	60	Diesel	1		43	10	
Backhoe/Front Loader	125	Diesel	1		43	10	
Dump Truck	350	Diesel	3		43	10	
Pipe Truck/Trailer	275	Diesel	1		43	10	250 Feet
Water Truck	300	Diesel	1		43	10	
Concrete Mixer Truck	350	Diesel	3		43	10	
Lowboy Truck/Trailer	450	Diesel	1		22	10	
Install Underground Cable (14)				**20**	**7**		**10,544 Circuit Feet**
1-Ton Truck, 4x4	300	Gas	2		7	10	
Manlift/Bucket Truck	250	Diesel	1		7	10	
Boom/Crane Truck	350	Diesel	1		7	10	
Wire Truck/Trailer	350	Diesel	2		7	10	0.33 Mile
Puller	350	Diesel	1		7	10	
Static Truck/ Tensioner	350	Diesel	1		7	10	
LWS Pole Haul (15)				**4**	**1**		**1 LWS Poles**

CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
CONSTRUCT VALLEY-IVYGLEN SEGMENT 8 115 KV T/L

WORK ACTIVITY				ACTIVITY PRODUCTION			
Primary Equipment Description	Estimated Horse-Power	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Schedule (Days)	Duration of Use (Hrs/Day)	Estimated Production Per Day
3/4-Ton Truck, 4x4	275	Gas	1		1	10	
Boom/Crane Truck	350	Diesel	1		1	10	5 Poles
Flat Bed Pole Truck	400	Diesel	1		1	10	
LWS Pole Assembly (16)				**20**	**1**		**1 LWS Poles**
3/4-Ton Truck, 4x4	275	Gas	2		1	10	
1-Ton Truck, 4x4	300	Gas	2		1	10	4 Poles
Compressor Trailer	60	Diesel	1		1	10	
Boom/Crane Truck	350	Diesel	1		1	10	
Install LWS Pole (17)				**20**	**1**		**1 LWS Poles**
1-Ton Truck, 4x4	300	Gas	1		1	10	
Manlift/Bucket Truck	250	Diesel	1		1	10	
Boom/Crane Truck	350	Diesel	1		1	10	
Auger Truck	210	Diesel	1		1	10	4 Poles
Backhoe/Front Loader	125	Diesel	1		1	10	
Extendable Flat Bed Pole Truck	400	Diesel	1		1	10	

Crew Size Assumptions:

#1 Survey = one 4-man crew
#2 Right-of-way Clearing = one 8-man crew
#3 Roads & Landing Work = one 8-man crew
#4 Guard Structure Installation = two 10-man crews
#5 Install Foundations for TSPs = two 10-man crews
#6 TSP Haul = one 4-man crew
#7 TSP Assembly = two 10-man crews
#8 TSP Erection = two 10-man crews
#9 TSP Assembly = two 10-man crews
#10 Conductor & GW Installation = two 10-man crews
#11 Restoration = one 8-man crew
#12 Vault Installation = three 10-man crews
#13 Duct Bank Installation = three 10-man crews
#14 Install Underground Cable = two 10-man crews
#15 LWS Pole Haul = one 4-man crews
#16 LWS Pole Assembly = two 10-man crews
#17 Install LWS Pole = two 10-man crews

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3 – ANALYSIS OF PROPOSED MODIFICATIONS

This Project Modifications Report analyzes the potential effects of the proposed Valley-Ivyglen 115 Kilovolt Subtransmission Line Project modifications (Proposed Modifications) on the following environmental resource areas, which were all addressed in the Final Environmental Impact Report (EIR):

1. Land Use
2. Visual Resources
3. Biological Resources
4. Cultural Resources
5. Geology, Soils, and Minerals Resources
6. Hydrology and Water Quality
7. Hazards and Public Safety
8. Recreation
9. Air Quality
10. Noise and Vibration
11. Transportation and Traffic
12. Public Services and Utilities
13. Agriculture
14. Population and Housing

The Final EIR identified the significance of each impact according to the following classifications:

- Class I: Significant impact and no feasible mitigation measures are available
- Class II: Less-than-significant impact after mitigation measures are implemented
- Class III: Less-than-significant impact without mitigation measures[1]

Section 3.1 Land Use through *Section 3.14 Population and Housing* summarize the impact determinations in the Final EIR, analyze the effects of the Proposed Modifications on the impact determinations in the Final EIR, and evaluate new impacts not addressed in the Final EIR. The beginning of each resource analysis contains a table summarizing each impact in the Final EIR, by indicating the class of impact (i.e., Class I, Class II, and Class III) and the applicable applicant-proposed measures (APMs) and mitigation measures that were included in the Final EIR. Each section also contains a table that identifies the Proposed Modifications that are relevant to the resource analysis. In addition, each section concludes with a table that summarizes the change in impact significance and identified any new APMs that have been developed to reduce impacts from the Proposed Modifications. *Chapter 4 – Cumulative Impacts* discusses past, present, and reasonably foreseeable future projects within one mile of the proposed subtransmission line as identified in the Final EIR, as well as new projects identified since the release of the Final EIR, and the potential for the Proposed Modifications to contribute to a significant cumulative effect.

[1] The Final EIR applied a Class III assessment in situations where no impacts would occur.

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3.1 LAND USE

This section summarizes the impacts to land use identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to land use, and analyzes the potential effects of the Proposed Modifications on land use. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

3.1.1 Summary of Final EIR

The Final EIR determined that the impacts to land use would be significant and unavoidable. *Table 3.1-1: Summary of Final EIR – Land Use* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for land use associated with the Approved Project.

Table 3.1-1: Summary of Final EIR – Land Use

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact LAND-1: Physical Division. The Final EIR determined that construction and operation of the Approved Project would not physically divide an established community.	Class III (Less than Significant)	None
Impact LAND-2: Applicable Land Use Plan, Policy, or Regulation. The Final EIR determined that the Approved Project would conflict with one policy in the Land Use Element of the Riverside County Plan and one policy in the City of Lake Elsinore zoning code.	Class I (Significant and Unavoidable)	None
Impact LAND-3: Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). The Final EIR determined that the Approved Project would comply with the Western Riverside County Multiple Species HCP (MSHCP) to mitigate any impacts covered by the MSHCP.	Class II (Less than Significant after Mitigation)	MM BIO-1b

Source: California Public Utilities Commission (CPUC), 2010

3.1.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on land use from the Proposed Modifications.

3.1.2.1 Methodology

Potential impacts to land use resulting from the construction of each Proposed Modification were determined based on an assessment of whether the Proposed Modification would physically divide an established community, conflict with an applicable land use plan, or conflict with an HCP or NCCP. The methodology used for this analysis is consistent with the methodology used for the Final EIR. *Table 3.1-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Land Use* summarizes the significance level of impacts associated

with the Proposed Modifications and provides a comparison to the applicable impacts from the Final EIR.

Table 3.1-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Land Use

Proposed Modifications	Impact LAND			Discussion
	-1	-2	-3	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications				
Segment Realignment	✓	✓	✓	Segment realignment associated with the Proposed Modifications has the potential to affect Impact LAND-1, -2, -and -3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Conversion to Underground	✓	NA	✓	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact LAND-1 and -3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Modified Pole Span Length/Pole Height/ Number	✓	✓	✓	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact LAND-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Additional Pole Types	✓	✓	✓	The use of additional pole types for the Proposed Modifications has the potential to affect Impact LAND-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.

Proposed Modifications	Impact LAND			Discussion
	-1	-2	-3	
Modified Conductor Configuration	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to land use impacts as compared to the Final EIR. The modified conductor configuration would occur along the poles used to support the Valley-Ivyglen 115 kV Subtransmission Line and would be installed in the same manner as the original conductor configuration described in the EIR. The modified conductor configuration would not physically divide an established community, conflict with an applicable land use plan, or conflict with an HCP or NCCP.
Access Road Design Changes	NA	NA	✓	Access road design changes associated with the Proposed Modifications have the potential to affect Impact LAND-3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications				
Staging Areas	NA	✓	✓	The use of new staging areas for the Proposed Modifications has the potential to affect Impact LAND-2 and -3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Stringing Set-Up Areas	NA	✓	✓	Stringing set-up areas associated with the Proposed Modifications have the potential to affect Impact LAND-2 and -3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Helicopter Operation Yards	NA	✓	✓	Use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact LAND-2 and -3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.

Proposed Modifications	Impact LAND			Discussion
	-1	-2	-3	
Guard Structure Installation	NA	NA	✓	The use of guard structures for the Proposed Modifications has the potential to affect Impact LAND-3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Shoofly Installation	NA	NA	✓	The use of a shoofly for the Proposed Modifications has the potential to affect Impact LAND-3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations.* As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Blasting/ Fracturing	NA	NA	NA	The use of blasting/fracturing for the Proposed Modifications would not result in changes to land use impacts as compared to the Final EIR. The use of blasting/fracturing may be required in some locations along the Valley-Ivyglen 115 kV Subtransmission Line where rock is present. The use of blasting/fracturing would not physically divide an established community, conflict with an applicable land use plan, or conflict with an HCP or NCCP.
Helicopter Use	NA	NA	NA	The use of helicopters for the Proposed Modifications would not result in changes to land use impacts as compared to the Final EIR. Helicopters would be used to support construction activities in areas where access is limited or system outage constraints are a factor. The operations area for the helicopters would be limited to helicopter operation yards, material yards, and ground locations in close proximity to conductor pulling, tensioning, and splice sites along the Valley-Ivyglen 115 kV Subtransmission Line. Helicopter use would not physically divide an established community, conflict with an applicable land use plan, or conflict with an HCP or NCCP.

Proposed Modifications	Impact LAND			Discussion
	-1	-2	-3	
Telecommunications System Modifications				
Underground Installation	✓	✓	✓	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact LAND-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Overhead Installation	NA	NA	NA	Overhead installation of the telecommunications system associated with the Proposed Modifications would not result in changes to land use impacts as compared to the Final EIR. Overhead installation of the telecommunications system would occur on the poles used to support the Valley-Ivyglen 115 kV Subtransmission Line and would not physically divide an established community, conflict with an applicable land use plan, or conflict with an HCP or NCCP.

Note: NA = Not Applicable

3.1.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to land use as identified in the Final EIR, and evaluate whether the Proposed Modifications affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.1.2.3 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. The modified conductor configuration, blasting/fracturing, helicopter use, and overhead installation of the telecommunications system do not affect land use and are not described further, as described in Table 3.1-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Land Use.

Impact LAND-1: Physical Division

The Final EIR indicated that the construction and operation of the Approved Project would not physically divide an established community; therefore, there would be no significant impact (Class III).

The proposed segment realignments would be located in the City of Lake Elsinore and unincorporated Riverside County within rural areas. Many different land use designations would be crossed by the segment realignments and would be within the temporary staging areas, as provided in *Table 3.1-3: General Plan Land Use Designations Crossed*. The realigned portions of the Fogarty-Ivyglen 115 kV Subtransmission Line along Segment 5 would be generally be parallel to the Valley-Ivyglen 115 kV Subtransmission Line and would cross similar land use designations. Southern California Edison (SCE) would acquire approximately 4.9 miles of new right-of-way (ROW) and approximately 13.7 miles would be placed within easements or in franchise locations to accommodate the subtransmission line. The approximate locations of the types of ROWs to be acquired for the Proposed Modifications are illustrated in *Figure 3.1-1: Right-of-Way Overview Map*. The modified subtransmission line route would not divide existing communities because it would not constitute a barrier that could limit access. Impact LAND-1 would remain less than significant and consistent with the Final EIR's assessment of Class III (Less than Significant). Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact LAND-1 as compared to the Final EIR.

Table 3.1-3: General Plan Land Use Designations Crossed

Proposed Modification	Location	General Land Use Designation	Approximate Distance/Area
Segment Realignment – Segment 4	City of Lake Elsinore	Business Professional	0.09 mile
		Floodway	0.22 mile
		Low Densitity Residential	0.04 mile
		Limited Industrial	2.04 miles
		Public/Institutional	0.02 mile
		Residential Mixed Use	< 0.01 mile
Segment Realignment – Segment 5	City of Lake Elsinore	Public/Institutional	0.27 mile
		Residential Mixed Use	0.41 mile
		Specific Plan	2.29 miles
	City of Lake Elsinore Sphere of Influence	Hillside Residential	0.02 mile
		Limited Industrial	0.42 mile
		Public/Institutional	0.39 mile
	Riverside County	Freeway	< 0.01 mile
		Rural Residential	< 0.01 mile
Segment Realignment – Segment 7	City of Lake Elsinore Sphere of Influence	General Commercial	0.14 mile
		Low-Medium Residential	0.03 mile
		Open Space	0.09 mile
		Public/Institutional	1.10 miles
		Tourist Commercial	0.32 mile
	Riverside County	Freeway	0.01 mile
		Light Industrial	0.11 mile
		Medium Density Residential	< 0.01 mile
		Open Space-Conservation Habitat	< 0.01 mile
		Very High Density Residential	< 0.01 mile

Proposed Modification	Location	General Land Use Designation	Approximate Distance/Area
Segment Realignment – Segment 8	Riverside County	Business Park	0.11 mile
		Commercial Retail	0.09 mile
		Freeway	0.22 mile
		Light Industrial	0.63 mile
		Medium High Density Residential	0.05 mile
		Open Space-Conservation	0.68 mile
		Open Space-Mineral Resources	0.01 mile
		Rural Mountainous	0.12 mile
Joe 74 Staging Area	Riverside County	Very Low Density Residential	3.50 acres
Joe Yard Extension Staging Area	Riverside County	Very Low Density Residential	2.75 acres
Central 74 Staging Area	City of Lake Elsinore	Specific Plan	1.56 acres
	City of Lake Elsinore Sphere of Influence	Business Professional	0.03 acre
Strawberry 74 Staging Area	City of Lake Elsinore	Limited Industrial	11.00 acres
Orange Yard Staging Area	City of Lake Elsinore Sphere of Influence	General Commercial	1.03 acres
		Low-Medium Residential	2.49 acres
		Medium Density Residential	7.46 acres
	Riverside County	Medium Density Residential	0.04 acre
		Very High Density Residential	< 0.01 acre
Chaney Staging Area	City of Lake Elsinore	Business Professional	5.00 acres
Catfish 74 Staging Area	City of Lake Elsinore	Limited Industrial	3.75 acres
Valley Yard-South	City of Menifee	City	5.40 acres

Sources: Barrozo, 2012; Riverside County, 2012

Figure 3.1-1: Right-of-Way Overview Map

Impact LAND-2: Applicable Land Use Plan, Policy, or Regulation

The Final EIR indicated that the Approved Project would conflict with one policy in the Land Use Element of the Riverside County Plan (LU 13.5) and two policies in the City of Lake Elsinore zoning code (Section 17.04.040.D.1 and Section 17.204.030.H), resulting in a significant land use impact (Class I). These policies are as follows:

- LU 13.5: Require new or relocated electric or communication distribution lines, which would be visible from Designated and Eligible State and County Scenic Highways, to be placed underground.

- Section 17.16.040.D: Where practical, all utilities, including the linkage between main line and structures, shall be underground.

- Section 17.204.030.H: All electrical and telephone facilities, fire alarm conduits, streetlight wiring, cable television, and other wiring, conduits or facilities shall, where feasible, be placed underground. Electric and telephone facilities shall be installed in accordance with standard specifications of the serving utilities.

The majority of subtransmission line segment realignments would cross the City of Lake Elsinore and areas within the City of Lake Elsinore's sphere of influence. The remainder of the subtransmission line segment realignments would occur in unincorporated Riverside County as provided in *Table 3.1-4: Land Use Areas Crossed*.

Table 3.1-4: Land Use Areas Crossed

Proposed Modification	City/County	Approximate Distance (miles)
Segment Realignment – Segment 4	City of Lake Elsinore	2.41
Segment Realignment – Segment 5	City of Lake Elsinore	2.97
	City of Lake Elsinore Sphere of Influence	0.83
	Riverside County	0.05
Segment Realignment – Segment 7	City of Lake Elsinore Sphere of Influence	1.67
	Riverside County	0.12
Segment Realignment – Segment 8	Riverside County	1.90

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Modifications. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters."

Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities' regulations are not applicable as the county and cities do not have jurisdiction over the Proposed Modifications. Accordingly, the following discussion of local land use regulations is provided for informational purposes only. *Table 3.1-5: Local Land Use Policies* lists the local policies for each jurisdiction that would be crossed by the Proposed Modifications.

Within the City of Lake Elsinore, the proposed segment realignments would traverse two separate specific plan areas—Alberhill Ranch and Murdock Alberhill Ranch. The policies for these specific plan areas are not applicable to the Proposed Modifications, and there are no policies relevant to utilities in these plans. As described in *Table 3.1-5: Local Land Use Policies*, the City of Lake Elsinore Zoning Ordinance states that utilities shall be undergrounded where practical or feasible. The Proposed Modifications would continue to conflict with the City of Lake Elsinore Zoning Ordinance in the same manner as described in the Final EIR.

As previously described, the proposed segment realignments would cross unincorporated Riverside County for approximately 2.07 miles and within the Elsinore and Temescal Canyon area plans. The proposed segment realignments would also traverse the Renaissance Ranch, Horsethief Canyon, and Wildrose specific plans. Policies for these area and specific plans are not applicable to the Proposed Modifications, and there are no policies relevant to utilities in these plans.

As described in *Table 3.1-5: Local Land Use Policies*, Policy LU 13.5 of the Riverside County General Plan requires new electric or communication distribution lines that would be visible from designated and eligible State and County Scenic Highways to be placed underground. SCE would underground a portion of the subtransmission line and telecommunications system along Interstate (I-) 15, which is an eligible State Scenic Highway. However, portions of the subtransmission line and co-located telecommunications system would be installed overhead in areas visible from I-15 and State Route 74, which is also an eligible State Scenic Highway. Therefore, the Proposed Modifications would continue to conflict with Policy 13.5 of the Riverside County General Plan in the same manner as described in the Final EIR.

As described in *Table 3.1-5: Local Land Use Policies*, Policy LU 25.3 of the Riverside County General Plan requires that new public facilities protect sensitive uses from the impacts of noise, light, fumes, odors, vehicular traffic, parking, and operational hazards. The Proposed Modifications would be located within 0.25 mile of Ortega High School, Gordon Kiefer School, Luiseno Elementary School, and Todd Elementary School, and within 0.25 mile of some residences; however, impacts to these sensitive uses would be reduced to less-than-significant levels with the implementation of the APMs and MMs described in the Final EIR. *Section 3.10 Noise* addresses potential noise impacts, *Section 3.2 Visual Resources* addresses potential impacts from light, *Section 3.9 Air Quality* addresses potential impacts from fumes and odors, *Section 3.11 Transportation and Traffic* addresses potential impacts from vehicular traffic and parking, and *Section 3.7 Hazards and Public Safety* addresses potential impacts from hazards. Therefore, the Proposed Modifications would not conflict with Policy LU 25.3 of the Riverside County General Plan.

Table 3.1-5: Local Land Use Policies

City/ County	Component	Document	Policy
City of Lake Elsinore	Valley-Ivyglen 115 kV Subtransmission Line Telecommunications System	City of Lake Elsinore Zoning Ordinance	Section 17.16.040.D: Where practical, all utilities, including the linkage between main line and structures, shall be underground.
			Section 17.204.030.H: All electrical and telephone facilities, fire alarm conduits, streetlight wiring, cable television, and other wiring, conduits or facilities shall, where feasible, be placed underground. Electric and telephone facilities shall be installed in accordance with standard specifications of the serving utilities.
Riverside County	Valley-Ivyglen 115 kV Subtransmission Line Telecommunications System	Riverside County General Plan	LU 13.5: Require new or relocated electric or communication distribution lines, which would be visible from Designated and Eligible State and County Scenic Highways, to be placed underground.
			LU 25.3: Require that new public facilities protect sensitive uses, such as schools and residences, from the impacts of noise, light, fumes, odors, vehicular traffic, parking, and operational hazards.
			LU 25.5: Require that public facilities be designed to consider their surroundings and visually enhance, not degrade, the character of the surrounding area.
			S 7.11: Coordinate with the CPUC and/or utilize the Capital Improvement Program, to strengthen, relocate, or take other appropriate measures to safeguard high-voltage lines, water, sewer, natural gas and petroleum pipelines, and trunk electrical and telephone conduits that (AI 4): • extend through areas of high liquefaction potential; • cross active faults; or • traverse earth cracks or landslides.

As described in *Table 3.1-5: Local Land Use Policies*, Policy LU 25.5 of the Riverside County General Plan requires that public facilities be designed to consider and visually enhance—not degrade—the character of the surrounding area. As described in the Final EIR, SCE would implement APMs AES-SCE-1 through AES-SCE-4, which require the following:

- revegetation of lands disturbed by construction,
- use of non-specular conductors,
- use of galvanized light-weight steel poles and tubular steel poles with a flat finish,
- location of poles off of ridgelines, except in areas where the subtransmission line follows an existing line, and
- siting of construction and permanent access roads, such that they would be screened from view by existing oak woodland and chaparral vegetation as seen from I-15.

As described in *Section 3.2 Visual Resources*, the increase in the number of poles and pole heights would increase the visibility of the subtransmission line; however, the implementation of the APMs would minimize the degradation of character of the surrounding area. As a result, the Proposed Modifications would continue to conflict with Policy LU 25.5 of the Riverside County General Plan in the same manner as described in the Final EIR.

As described in *Table 3.1-5: Local Land Use Policies*, Policy S 7.11 of the Riverside County General Plan states that Riverside County would coordinate with the CPUC and/or utilize the Capital Improvement Program to safeguard high-voltage lines that extend through areas of high liquefaction potential, cross active faults, or traverse earth cracks or landslides. As discussed in *Section 3.5 Geology, Soils, and Mineral Resources*, the Proposed Modifications would not be within high liquefaction hazard zones or traverse earth cracks or landslides. The subtransmission line would cross two unnamed faults within the Elsinore Fault Zone; however, APM GEO-SCE-2 requires a geotechnical study to identify site-specific geologic conditions, including recommendations for final project design. Therefore, the subtransmission line would be designed to withstand seismic activity, and the Proposed Modifications would not conflict with Policy S 7.11 of the Riverside County General Plan.

The Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact LAND-2 as compared to the Final EIR.

Impact LAND-3: Habitat Conservation Plan or Natural Community Conservation Plan

The Final EIR indicated that the Approved Project would be located within the Western Riverside County MSHCP boundary. The overall goal of the MSHCP is to maintain biological diversity within a rapidly urbanizing region. SCE's compliance with MM BIO-1b, which requires pre-construction surveys for special-status plant species and compliance with the MSHCP, would mitigate any impacts to natural vegetation communities covered by the MSHCP to less-than-significant levels (Class II).

Consistent with the Final EIR, the Proposed Modifications would also be located within the established Western Riverside County MSHCP boundary. In the event that SCE does not participate in the MSHCP, the project would not conflict with the MSHCP. The Proposed Modifications are not expected to conflict with any regional HCP or NCCP. Placing facilities

within the regional HCP boundaries is discussed in *Section 3.3 Biological Resources*. Impact LAND-3 is still considered a Class III (Less-than-Significant) impact, consistent with the Final EIR. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to LAND-3 as compared to the Final EIR.

3.1.2.3 Additional Evaluation

The City of Menifee was incorporated in October 2008 during the completion of the Final EIR. Menifee is located in eastern Riverside County, bordered by the cities of Perris, Canyon Lake, Lake Elsinore, Murrieta, Wildomar, and unincorporated Riverside County and is approximately 50 square miles. *Figure 2-1: Valley-Ivyglen 115 kV Subtransmission Line Overview Map* in *Chapter 2 – Proposed Modifications* depicts the location of the City of Menifee. Existing conditions have not changed as a result of Menifee's incorporation. Further, applicable regional and local regulations, plans, and standards have not changed because the City of Menifee has not yet adopted its general plan. Thus, the Riverside County General Plan currently guides Menifee's land use decisions. As a result, programs and policies stated in the Final EIR remain applicable for the Proposed Modifications.

In addition, the California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.1.3 Summary

As indicated in *Table 3.1-6: Significance of Impact Changes – Land Use*, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

Table 3.1-6: Significance of Impact Changes – Land Use

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[1]
Impact LAND-1: Physical Division	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact LAND-2: Applicable Land Use Plan, Policy, or Regulation	Class I (Significant and Unavoidable)	Class III (Less than Significant)	None	None
Impact LAND-3: HCP or NCCP	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM BIO-1b	MM BIO-1b (revised)

Source: CPUC, 2010

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[1] Refer to *Chapter 2 – Proposed Modifications* for details on the revised measures.

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3.2 VISUAL RESOURCES

This summarizes the impacts to visual resources identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to visual resources, and analyzes the potential effects of the Proposed Modifications on visual resources. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

3.2.1 Summary of Final EIR

The Final EIR determined that impacts to visual resources would be significant and unavoidable. *Table 3.2-1: Summary of Final EIR – Visual Resources* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for visual resources associated with the Approved Project.

Table 3.2-1: Summary of Final EIR – Visual Resources

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact VIS-1: Adverse Effect on a Scenic Vista. The Final EIR determined that construction of the Approved Project along the proposed route would violate Riverside County Land Use Elements and City of Lake Elsinore zoning codes protecting scenic vistas within view of Eligible State Scenic Highways.	Class I (Significant and Unavoidable)	APM AES-Southern California Edison (SCE)-1 APM AES-SCE-2 APM AES-SCE-3 APM AES-SCE-4
Impact VIS-2: Damage to Scenic Resources within a State Scenic Highway. The Final EIR determined that construction of the approved subtransmission line would temporarily but significantly damage visual resources within view of a State Scenic Highway.	Class I (Significant and Unavoidable)	APM AES-SCE-1 APM AES-SCE-2 APM AES-SCE-3 APM AES-SCE-4
Impacts VIS-3: Degradation to Existing Visual Character. The Final EIR determined that the approved subtransmission line route would disrupt the intactness of views, vividly contrast with the natural setting, and lessen the unity of the terrain.	Class I (Significant and Unavoidable)	APM AES-SCE-1 APM AES-SCE-2 APM AES-SCE-3 APM AES-SCE-4
Impact VIS-4: New Source of Substantial Light or Glare Affecting Daytime or Nighttime Views. The Final EIR determined that the approved subtransmission line would increase the vividness of views while lessening their intactness and unity.	Class III (Less than Significant)	APM AES-SCE-1 APM AES-SCE-2 APM AES-SCE-3 APM AES-SCE-4

Source: California Public Utilities Commission (CPUC), 2010

3.2.2 Analysis of the Effects of Proposed Modifications

This section analyzes the potential effects on visual resources from the Proposed Modifications.

3.2.2.1 Methodology

Potential impacts to visual resources for each Proposed Modification were determined based on an assessment whether the modification would have a substantial adverse effect on a scenic vista; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings; or create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. The methodology used for this analysis is consistent with the methodology used for the Final EIR. *Table 3.2-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Visual Resources* summarizes the significance level of impacts associated with the Proposed Modification and provides a comparison to applicable impact from the Final EIR.

Table 3.2-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Visual Resources

Proposed Modifications	Impact VIS				Discussion
	-1	-2	-3	-4	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications					
Segment Realignment	✓	✓	✓	✓	Segment realignment associated with the Proposed Modifications has the potential to affect Impact VIS-1,-2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Conversion to Underground	✓	✓	✓	NA	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact VIS-1,-2, and -3 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Modified Pole Span Length/Pole Height/Number	✓	✓	✓	✓	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact VIS-1,-2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Additional Pole Types	✓	✓	✓	NA	The use of additional pole types for the Proposed Modifications has the potential to affect Impact VIS-1,-2, and -3 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Modified Conductor Configuration	✓	✓	✓	✓	The use of modified conductor configurations for the Proposed Modifications has the potential to affect Impact VIS-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.

Proposed Modifications	Impact VIS				Discussion
	-1	-2	-3	-4	
Access Road Design Changes	✓	✓	✓	NA	Access road design changes associated with the Proposed Modifications has the potential to affect Impact VIS-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications					
Staging Areas	✓	✓	✓	✓	The use of new staging areas for the Proposed Modifications has the potential to affect Impact VIS-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Stringing Setup Areas	✓	✓	✓	NA	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact VIS-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Helicopter Operation Yards	✓	✓	✓	✓	The use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact VIS-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Guard Structure Installation	✓	✓	✓	NA	The use of guard structures for the Proposed Modifications has the potential to affect Impact VIS-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations.* As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.

Proposed Modifications	Impact VIS				Discussion
	-1	-2	-3	-4	
Shoofly Installation	✓	✓	✓	NA	The use of a shoofly for the Proposed Modifications has the potential to affect Impact VIS-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Blasting/Fracturing	✓	✓	✓	NA	The use of blasting/fracturing for the Proposed Modifications has the potential to affect Impact VIS-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Helicopter Use	✓	✓	✓	NA	The use of helicopters for the Proposed Modifications has the potential to affect Impact VIS-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations.* As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Telecommunications System Modifications					
Underground Installation	✓	✓	✓	NA	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact VIS-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Overhead Installation	✓	✓	✓	✓	Overhead installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact VIS-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.

Note: NA = Not Applicable

Visual Simulations

Figure 3.2-1: Photograph Viewpoint Locations Map delineates the locations of the Valley-Ivyglen 115 kV Subtransmission Line, portions of the Valley-Elsinore-Ivyglen 115 kV Subtransmission Line that would be relocated, the existing substations, as well as the photograph viewpoints (VPs). *Figure 3.2-2: Representative Photographs* presents a set of 10 photographs that show representative visual conditions and public views in the vicinity of the modified Valley-Ivyglen 115 kV Subtransmission Line. Four visual simulations of the modifications along the Valley-Ivyglen 115 kV Subtransmission Line have been prepared to illustrate the segment realignment, modified pole span length/pole height/number, additional poles types, and modified conductor configuration.

This visual assessment employs methods based partly on those developed by the United States Department of Transportation Federal Highway Administration, and other accepted visual analysis techniques as summarized by Smardon, et al. The analysis describes the change to existing visual resources and assesses viewers' response to that change. Central to this assessment is an evaluation of representative views from which the Valley-Ivyglen 115 kV Subtransmission Line modifications would be visible to the public. To document the visual changes that would occur, visual simulations show the Valley-Ivyglen 115 kV Subtransmission Line from key observation points (KOPs). These changes were assessed, in part, by evaluating the computer-generated visual simulations and comparing them to the existing visual environment.

The simulation images portray the location, scale, and appearance of the Valley-Ivyglen 115 kV Subtransmission Line as seen from publicly accessible KOPs. Field observations were conducted in October 2012 to document existing visual conditions in the area and to identify potentially affected sensitive viewing locations. The KOP locations were selected to represent views seen by the largest number of viewers, primarily along scenic routes or other public roadways. The set of simulations illustrates the representative visual change associated with the modification of the Valley-Ivyglen 115 kV Subtransmission Line.

Technical methods employed for producing the computer-generated simulation images include high-resolution digital site photography using a single-lens reflex camera with a 50-millimeter lens or equivalent that represents a horizontal-view angle of 40 degrees. The systematic documentation of photographic viewpoints employed Global Positioning System (GPS) recording and photograph log sheet and basemap annotation. Three-dimensional (3-D) computer modeling for proposed structures, which was developed using engineering design data was combined with geographic information system and engineering data, as well as digital aerial photographs of the existing site, to produce digital modeling for visual analysis and simulation. Simulation viewpoint locations were incorporated based on GPS field data, using five feet as the assumed eye level.

To verify scale and viewpoint locations, computer "wireframe" perspective plots were overlaid on the KOP photographs. Digital visual simulation images were then produced based on computer renderings of the 3-D modeling combined with selected photographs. The final "hard-copy" visual simulation images contained in this visual analysis were printed from the digital image files and produced in color on 11-inch by 17-inch sheets. As shown in *Figure 3.2-3:*

Existing View and Visual Simulation from SR-74 at Allan Street, *Figure 3.2-4: Existing View and Visual Simulation from I-15 near Central Avenue*, *Figure 3.2-5: Existing View and Visual Simulation from Lake Street near Temescal Canyon Road*, *Figure 3.2-6: Existing View and Visual Simulation from I-15 near Horsethief Canyon Road*, and *Figure 3.2-7: Existing View and Visual Simulation from I-15 at Indian Truck Trail*, the simulation figures present two images per sheet—an existing view with a simulation below that portraying the modified Valley-Ivyglen 115 kV Subtransmission Line from the corresponding KOP.

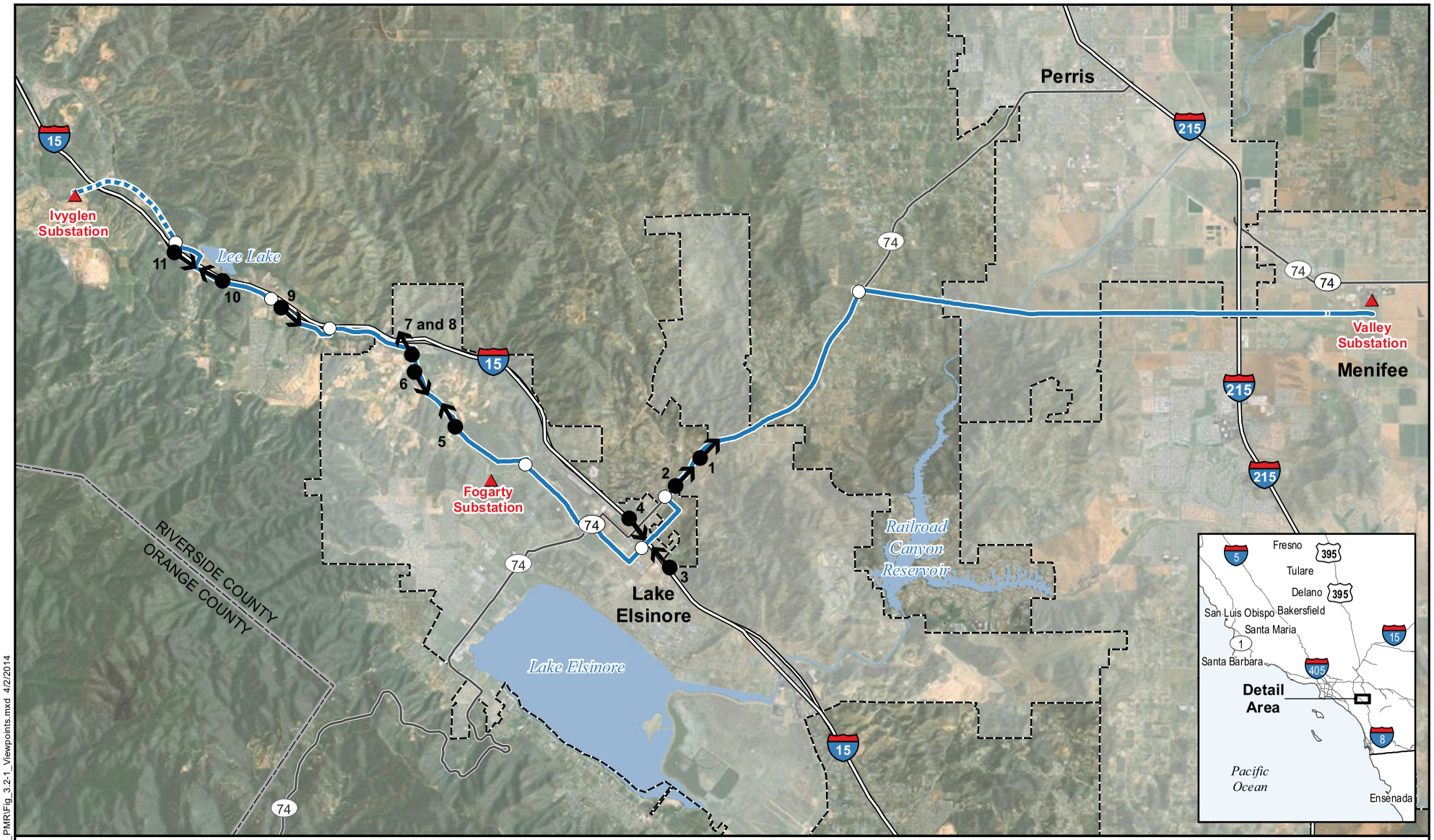

Figure 3.2-1: Photograph Viewpoint Locations Map

Valley-Ivyglen 115 kV Subtransmission Line Project

- Existing Substation
- Proposed Valley-Ivyglen Route - Overhead
- Proposed Valley-Ivyglen Route - Underground
- Segment Break
- Interstate
- Highway
- City Boundary
- County Boundary
- Candidate Simulation Viewpoint Location and View Directions

1:125,000

0 2 4 Miles

Data Sources: Insignia, 2014; SCE, 2014

Z:\Projects\SCE_VIG\MXDs\REVISED_VIG_PMR\Fig_3.2-1_Viewpoints.mxd 4/2/2014

1. SR-74 at Rosetta Canyon Drive looking north (Segment 2)

2. SR-74 at Allan Street looking north (Segment 2)

Figure 3.2-2: Representative Photographs
Valley-Ivyglen 115 kV Subtransmission Project

3. I-15 looking northwest (Segment 3 - 3rd Street crossing)

4. I-15 near Central Avenue looking southeast (Segment 3 - 3rd Street crossing)

Figure 3.2-2: Representative Photographs
Valley-Ivyglen 115 kV Subtransmission Project

5. Lake Street near Nichols Road looking north (Segment 5)

6. Lake Street looking south (Segment 5)

Figure 3.2-2: Representative Photographs
Valley-Ivyglen 115 kV Subtransmission Project

7. Lake Street near Temescal Canyon Road looking north (Segment 5)

8. Lake Street near Temescal Canyon Road looking north (Segment 5)

Figure 3.2-2: Representative Photographs
Valley-Ivyglen 115 kV Subtransmission Project

9. I-15 southbound near Horsethief Canyon Road looking southeast (Segment 6)

10. I-15 looking northwest (Segment 7 crossing)

Figure 3.2-2: Representative Photographs
Valley-Ivyglen 115 kV Subtransmission Project

11. I-15 at Indian Truck Trail looking southeast (Segment 7 crossing)

Figure 3.2-2: Representative Photographs
Valley-Ivyglen 115 kV Subtransmission Project

Existing View from SR-74 at Allan Street looking north

Visual Simulation of Proposed Project (Segment 2)

Figure 3.2-3:
Existing View and Visual Simulation from SR-74 at Allan Street
Valley-Ivyglen 115 kV Subtransmission Project

Existing View from I-15 near Central Avenue looking southeast

Visual Simulation of Proposed Project (Segment 3 - 3rd Street crossing)

Figure 3.2-4:
Existing View and Visual Simulation from I-15 near Central Avenue
Valley-Ivyglen 115 kV Subtransmission Project

Existing View from Lake Street near Temescal Canyon Road looking north (Segment 5)

Visual Simulation of Proposed Project (Segment 5)

Note: As part of a third party's utility corridor, a 12-foot access road will be built between the two subtransmission lines.

Figure 3.2-5:
Existing View and Visual Simulation from Lake Street near Temescal Canyon Road
Valley-Ivyglen 115 kV Subtransmission Project

Existing View from I-15 near Horsethief Canyon Road looking southeast

Visual Simulation of Proposed Project (Segment 6)

Figure 3.2-6:
Existing View and Visual Simulation from I-15 near Horsethief Canyon Road
Valley-Ivyglen 115 kV Subtransmission Line Project

Existing View from I-15 at Indian Truck Trail looking southeast

Visual Simulation of Proposed Project (Segment 7 crossing)

Figure 3.2-7:
Existing View and Visual Simulation from I-15 at Indian Truck Trail
Valley-Ivyglen 115 kV Subtransmission Project

3.2.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to visual resources as identified in the Final EIR, and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.2.2.3 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications.

Impact VIS-1: Adverse Effect on a Scenic Vista

The Final EIR indicated that the approved route would be visible from scenic vistas along State Route (SR-) 74 and Interstate (I-) 15, both Eligible State Scenic Highways. As discussed in *Section 3.1 Land Use*, the Proposed Modifications would continue to conflict with the Riverside County General Plan and City of Lake Elsinore Zoning Ordinance in the same manner as described in the Final EIR because the subtransmission line would be constructed aboveground within the scenic vistas of these highways. The Final EIR determined that this impact for the Approved Project would be significant and unavoidable (Class I).

In addition, portions of the approved subtransmission line located at higher elevations may be within the viewshed of Lake Elsinore. As described in the Final EIR, the Approved Project subtransmission line route would significantly impact scenic vistas by detracting from the unity and intactness of the view, contrasting sharply with the surrounding natural landscape, and increasing the vividness of views by introducing a dominant manufactured element. To reduce the effect of the Approved Project on scenic vistas, SCE would implement APMs AES-SCE-1 through AES-SCE-4, which include revegetation of lands disturbed by construction, use of non-specular conductors, use of galvanized poles with a flat finish, locating poles off of ridgelines, and siting access roads such that they would be screened by existing oak woodland and chaparral vegetation as seen from I-15. With the implementation of these APMs, the Final EIR determined that impacts of the proposed subtransmission line on scenic views for the Approved Project would be less than significant (Class III).

Valley-Ivyglen 115 kV Subtransmission Line and Telecommunications System Modifications

The Proposed Modifications include realigning portions of the subtransmission line but the subtransmission line would continue to be visible from and/or span I-15 and SR-74 even with these realignments. The increased number of poles along the overhead segments, addition of guy poles and hybrid poles, added pole height, and inclusion of a crossarm for the overhead telecommunications system in these locations would also be visible. However, the Proposed Modifications would not substantially increase the severity of the significant impact identified for the Approved Project in the Final EIR.

In addition, the staging areas, stringing setup areas, helicopter operation yards, guard structures, shoofly poles, blasting/fracturing activities, and helicopter use would be temporarily visible in these locations during construction. The access road design changes would also be visible from I-15 and SR-74. Similar to the Approved Project SCE would reduce impacts by implementing

APM AES-SCE-1 and AES-SCE-3. These measures call for the development of a revegetation program to restore the visual quality along State Scenic Highways and the use of poles with a flat finish. SCE would also implement revised versions of AES-SCE-2 and AES-SCE-4 as described in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications*. The revisions to each of these measures and their effect on the assessments in the Final EIR are as follows:

- AES-SCE-2 – This measure has been revised to specify the type of conductor that would be installed—954 stranded aluminum conductor (SAC). This conductor type would also have a non-specular finish; therefore, it would not be a source of glare when installed.

- AES-SCE-4 – This measure has been revised to allow for poles to be located along ridgelines where power lines are currently installed. This revision would allow five subtransmission poles along Segment 6 to be located atop a ridgeline adjacent to an existing distribution line. These poles would be sighted to avoid impacting jurisdictional waters in this location. While these subtransmission poles along Segment 6 would be visible from a State Scenic Highway, their location would reduce the total number of poles along the affected spans. These poles would also be consistent with the current view as they would be installed adjacent to an existing overhead power line. In addition, the exposure to these poles would be limited in duration as the primary observers would be motorists traveling on I-15. As a result, this revision would not cause a significant increase in the severity of the existing significant impact from the Final EIR.

With the implementation of AES-SCE-1 through AES-SCE-4, as revised in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications*, impacts would continue to be significant; however, they would not substantially increase the severity of the Final EIR's Class I (Significant and Unavoidable) assessment.

Segment 8 of the subtransmission line and portions of the telecommunications system would be converted to an underground configuration, which would reduce visual impacts associated with Segment 8. The remaining seven segments of the subtransmission line and overhead installation of the telecommunications system would be constructed primarily using an aboveground configuration. The Proposed Modifications would not substantially change the level of impact analyzed in the Final EIR for the Approved Project regarding consistency with the Riverside County General Plan and City of Lake Elsinore Zoning Ordinance. The realignments and underground conversion modifications would not result in a new significant impact or substantially increase the severity of the Final EIR's Class I (Significant and Unavoidable) assessment.

As discussed in the Final EIR, portions of Segment 5 would be located at higher elevations and would be within the viewshed of Lake Elsinore. Since portions of the realigned Segment 5 would generally located in the same corridor, the Proposed Modifications impact to scenic vistas would be similar to the Approved Project because they would detract from the unity and intactness of the view, contrast sharply with the surrounding natural landscape, and increase the vividness of views by introducing a dominant manufactured element. SCE would continue to implement APMs AES-SCE-1 through AES-SCE-4, as revised in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications*, for the Proposed Modifications, described

previously, to reduce impacts to the viewshed of Lake Elsinore. As a result, impacts on scenic views would be considered less than significant (Class III), consistent with the Final EIR's Class III (Less-than-Significant) assessment. Therefore, the Proposed Modifications to the Valley-Ivyglen 115 kV Subtransmission Line and telecommunications system would not result in a new significant impact or substantially increase the severity of the impact related to Impact VIS-1 as compared to the Final EIR.

Impact VIS-2: Damage to Scenic Resources within a State Scenic Highway

The Final EIR indicated that construction of the subtransmission line would temporarily, but significantly, impact scenic views from Eligible State Scenic Highways. To reduce the impact, SCE would implement APMs AES-SCE-1 through AES-SCE-4. However, as described previously and in *Section 3.1 Land Use*, the Approved Project would conflict with the Riverside County General Plan and the City of Lake Elsinore Zoning Ordinance. Therefore, the Final EIR determined the impact of the Approved Project would be significant and unavoidable (Class I).

The locations of the Proposed Modifications are consistent with the Final EIR as it relates to Eligible State Scenic Highways. As described previously, the subtransmission line segment realignments would be located along I-15 and the modifications to the subtransmission line and overhead telecommunications system would be located along both I-15 and SR-74, which are Eligible State Scenic Highways. Some additional tree trimming along I-15 may be required for the segment realignment; however, no new tree removal is anticipated. There are no new rock outcroppings, historic buildings, or other scenic resources along I-15 or SR-74 that would be impacted by the temporary construction areas or installation of the modified subtransmission line or telecommunications system. As a result, the Proposed Modifications would not damage trees, rock outcroppings, historic buildings, or other scenic resources in these locations. As a result, the Proposed Modifications would not result in a change to scenic resources within an Eligible State Scenic Highway from what was analyzed in the Final EIR. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact VIS-2 as compared to the Final EIR.

Impact VIS-3: Degradation to Existing Visual Character

The Final EIR indicated that construction of the approved subtransmission line would have significant impacts on existing visual character. Construction would involve the removal of vegetation along the route to comply with construction fire codes and to create access roads; the removal of the currently used wooden poles; the installation of temporary signage, temporary outdoor storage of construction equipment and vehicles, and temporary fencing; and the spraying of nearby embankments. The Final EIR determined these impacts of the Approved Project would be temporary, but considered significant and unavoidable (Class I).

The Final EIR determined that the Approved Project subtransmission route would disrupt the intactness of views, vividly contrast with the natural setting, and lessen the unity of the terrain. As described previously, SCE would implement APM AES-SCE-1 through AES-SCE-4, as revised in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications*, to reduce the effects of construction and operation on the existing visual character. The Final EIR determined the impact of the Approved Project subtransmission line on

existing visual character would be significant, but implementation of APMs would reduce the impact to less-than-significant (Class III) levels.

Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications

Similar to the impacts described in the Final EIR for the Approved Project, visual impacts from the construction of the Proposed Modifications would result from the presence of equipment, materials, and work crews along the subtransmission line. Due to the linear nature of the Proposed Modifications, construction along the subtransmission line and telecommunications system would occur for short durations in one location before moving to the next active construction site. Construction durations may vary between a few hours during the installation or removal of a guard structure and a few days at a stringing setup area. Helicopter use would occur at the helicopter operation yards, staging areas, and ground locations in close proximity stringing setup areas, including locations in previously disturbed areas near construction sites. Construction activities would be spread out across the entire approximately 24-mile alignment and would take place over an approximately 27-month period. To varying degrees, construction activity would be seen by motorists, local residents, and recreational users at Alberhill Ranch Community Park and Jungle Island Paintball and Airsoft Park, which are described in *Section 3.8 Recreation*. It is expected that construction would be most noticeable from residential areas located in close proximity to the Proposed Modifications.

Construction of the Proposed Modifications is not anticipated to require the removal of any additional trees, however, if tree removal is deemed necessary, SCE would obtain the appropriate permits in accordance with MM BIO-4a, and effects on existing vegetation would be limited. Construction would require establishing temporary staging areas for vehicle and equipment parking, as well as material storage. Staging area preparation would include temporary perimeter fencing. In accordance with APM AES-SCE-1, SCE would revegetate all lands disturbed by construction and excess soil placement.

Similar to the impacts described in the Final EIR for the Approved Project, these visual effects would be temporary because SCE would restore any land that may be disturbed at the staging areas to near pre-construction conditions, or to the conditions agreed upon between the landowner and SCE following the completion of construction. Given that impacts during construction would be similar to the impacts described in the Final EIR for the Approved Project, impacts would continue to be significant and unavoidable, consistent with the Final EIR's impact determination. Therefore, the Proposed Modifications to the Valley-Ivyglen 115 kV Subtransmission Line construction methods would not result in a new significant impact (Class I) or substantially increase the severity of the impact related to Impact VIS-3 as compared to the Final EIR.

Valley-Ivyglen 115 kV Subtransmission Line Design Modifications and Telecommunications System Modifications

The subtransmission line would be located primarily within existing utility easements, newly acquired easements or existing street ROWs. Portions of the subtransmission line would be installed underground, and steel riser poles would be located at the start and end of each underground section. For the most part, the new subtransmission line would be supported by new light-weight steel poles (LWSPs) that would be approximately 35 to 115 feet tall and tubular

steel poles (TSPs) that would be approximately 45 to 135 feet tall. Shorter guy poles would be installed across from LWSPs in areas where the subtransmission line route is not straight and/or when local conditions require additional support. Four 75- to 80-foot-tall hybrid poles would be installed along Baker Street near the intersection with Riverside Drive. Four to five 85- to 100-foot-tall wood poles would be installed along the Fogarty-Ivyglen 115 kV Subtransmission Line, and two 75- to 80-foot-tall wood poles would be installed along the Valley-Elsinore-Fogarty 115 kV Subtransmission Line.

Table 3.2-3: Summary of Visual Effects at Key Observation Points presents an overview of the visual simulations, including the view location, the Proposed Modifications component portrayed, Proposed Modification-related change, and visual effects of the Proposed Modification. The Proposed Modifications are generally located within viewsheds where numerous existing utility structures and other vertical elements, such as streetlights and existing power poles, are established features in the landscape setting. A comparison between the existing views from the KOPs and the corresponding simulation images demonstrates that the Proposed Modifications would not substantially change the existing landscape character found within these viewsheds.

The Proposed Modifications would include the installation of a crossarm for the telecommunications system that would be installed on the new steel poles along the subtransmission line. Because the introduction of the overhead telecommunications system would generally appear as part of the overall subtransmission line, it would not be particularly noticeable to the public, and therefore, would have a negligible effect on public views. Therefore, the visual effects associated with these elements of the Proposed Modifications would be minor, incremental visual effects that would not substantially alter the visual setting as compared to the analysis in the Final EIR.

The following subsections provide a detailed discussion and evaluation of the potential visual effects from the Proposed Modifications on KOPs, as depicted in the visual simulations that are summarized in *Table 3.2-3: Summary of Visual Effects at Key Observation Points*.

Table 3.2-3: Summary of Visual Effects at Key Observation Points

Location	VP Number/ Figure Number	Proposed Modification-Related Change	Proposed Modification-Related Visual Effect
SR-74 at Allan Street	VP 2/ *Figure 3.2-3*	Introduction of taller LWSPs and a 10-foot crossarm for the telecommunications system along an arterial highway adjacent to a residential neighborhood. Setting includes existing wood poles and overhead conductors along the road and street lights.	Visual change is incremental; it would primarily be seen briefly by motorists traveling along this limited section of road and by nearby residents.
I-15 near Central Avenue	VP 4/ *Figure 3.2-4*	Introduction of taller TSPs along a freeway adjacent to an industrial/commercial neighborhood. Setting includes existing wood poles and overhead conductors, street lights, and a call box pole.	Visual change is minor at this location; it would primarily be seen briefly by motorists traveling along this limited section of road. Given the lack of sensitive receptors, it would not substantially alter the existing character of the urban landscape setting.
Lake Street near Temescal Canyon Road	VP 8/ *Figure 3.2-5*	Introduction of taller TSPs and LWSPs along a collector street adjacent to mining operations with trees on either side of the street and a mountainous backdrop. Setting includes existing wood poles and overhead conductors and street lights.	Visual change is incremental; it would be seen briefly by motorists traveling along this limited section of road.
I-15 near Horsethief Canyon Road	VP 9/ *Figure 3.2-6*	Introduction of taller LWSPs and TSPs along a freeway adjacent to an industrial neighborhood and open space. Setting includes existing wood poles and overhead conductor along the freeway.	Visual change is incremental; it would be seen briefly by motorists traveling along I-15.
I-15 at Indian Truck Trail	VP 10/ *Figure 3.2-7*	Introduction of taller TSPs and LWSPs along a freeway adjacent a residential neighborhood and open space. The I-15 crossing would be located approximately 500 feet southeast of the approved route where distribution lines cross the freeway. Setting includes existing wood and steel poles and overhead conductors, street lights, and a cell phone tower.	Given the presence of numerous existing structures at the proposed I-15 crossing, the Proposed Modifications would be an incremental visual change in the existing landscape character.

Note: See *Figure 3.2-1: Photograph Viewpoint Locations Map* for viewpoint locations.

Viewpoint 2 – SR-74 at Allan Street

Figure 3.2-3: Existing View and Visual Simulation from SR-74 at Allan Street portrays an existing view and visual simulation of the Proposed Modifications as seen from SR-74 at Allan Street. The photograph represents a motorist's brief view traveling northbound along SR-74, an arterial highway. In this area, the streetscape also includes landscaped residential development that can be seen at the right edge of the view. Streetlights are also prominent vertical elements seen on the right side of the street. Wood distribution poles can be seen on the left side of the street with vacant land in the background. Located approximately one mile away, mountains appear in the backdrop.

The simulation portrays the introduction of new LWSPs, approximately five to 10 feet taller than the approved poles, and a new 10-foot crossarm for the telecommunications system along this portion of SR-74. As shown in the simulation, the additional height of the new poles would be visible against the sky, in contrast with the lower portions that would be seen against mountains in the backdrop. The crossarm for the telecommunications system on the first three poles north of Allan Road would also be visible against the sky. A comparison of the existing view and simulation image provided in *Figure 3.2-3: Existing View and Visual Simulation from SR-74 at Allan Street* indicates that the Proposed Modifications would represent an incremental change to the streetscape visual setting as compared to the Approved Project. The new taller poles and 10-foot crossarm would not substantially affect views of the distant mountains seen in the backdrop. Although the new poles would be taller than the streetlights, their form and color would make them appear similar to the streetlights seen on the opposite side of SR-74. In this respect, the degree of visual change associated with the Proposed Modifications would be incremental and would not substantially alter the existing character of the landscape setting at this location as compared to the Approved Project.

Viewpoint 4 – I-15 near Central Avenue

Figure 3.2-4: Existing View and Visual Simulation from I-15 near Central Avenue portrays an existing view and visual simulation of the Proposed Modifications as seen from I-15 near Central Avenue. The photograph represents a motorist's brief view traveling southeast along I-15—a freeway. In this area, the existing setting also includes existing wood poles and overhead conductors, billboards, and a call box pole. Streetlights are also prominent vertical elements seen on the right side of the freeway. Located approximately 1.8 miles away, mountains appear in the backdrop.

The simulation portrays the introduction of new TSPs, approximately 10 to 15 feet taller than the approved poles, and a new five or 10-foot wood crossarm for the telecommunications system along SR-74. As shown in the simulation, the additional height of the new poles would be visible against the sky, in contrast with the lower portions that would be seen against the trees along the freeway. A comparison of the existing view and simulation image provided in *Figure 3.2-4: Existing View and Visual Simulation from I-15 near Central Avenue* indicates that the Proposed Modifications would represent an incremental change to the streetscape visual setting as compared to the Approved Project. The new taller poles would not substantially affect views of the distant mountains seen in the backdrop as compared to the analysis in the Final EIR. Although the new poles would be taller than the streetlights, their form and color would make them appear similar to the streetlights seen on the left side of I-15. The new taller poles would

appear to be approximately the same height as the call box pole. In this respect, the degree of visual change associated with the Proposed Modifications would be incremental and would not substantially alter the existing character of the landscape setting at this location as compared to the Approved Project as analyzed in the Final EIR.

Viewpoint 8 – Lake Street near Temescal Canyon Road

Figure 3.2-5: Existing View and Visual Simulation from Lake Street near Temescal Canyon Road portrays an existing view and visual simulation of the Proposed Modifications as seen from Lake Street near Temescal Canyon Road. The photograph represents a motorist's brief view traveling northbound along Lake Street—a collector street. In this area, the streetscape also includes trees on both sides of the street. Streetlights are also vertical elements seen in the background. Wood distribution poles and overhead conductor can be seen on the right side in the foreground, which cross Lake Street in the middle ground. Located approximately one mile away, mountains appear in the backdrop.

The simulation portrays the introduction of new TSPs and LWSPs along Lake Street, approximately 500 feet south of Temescal Canyon Road. As shown in the simulation, the upper portions of the new poles would be visible against the sky, whereas lower portions of the new poles would be seen against mountains in the backdrop. As shown in the simulation, trees along Lake Street block the lower portions of some of the poles on the Fogarty-Ivyglen 115 kV Subtransmission Line. A comparison of the existing view and the simulation impacts provided in *Figure 3.2-5: Existing View and Visual Simulation from Lake Street near Temescal Canyon Road* indicates that the Proposed Modifications would represent an incremental change to the streetscape visual setting. The new poles would not substantially affect views of the distant mountains seen in the backdrop as compared to the analysis of the Approved Project in the Final EIR. Although the new poles would increase the number of utility structures along Lake Street, the proposed realignment would eliminate the crossing over Lake Street in this area, which would reduce visual effects. The new poles would have a dull gray appearance, which contrast with the landscape less than the existing wood poles, and the form of the new poles are similar to the existing wood poles. In this respect, the degree of visual change associated with the Proposed Modifications would not substantially alter the existing character of the landscape setting at this location as compared to the analysis of the Approved Project in the Final EIR.

Viewpoint 11 – I-15 near Horsethief Canyon Road

Figure 3.2-6: Existing View and Visual Simulation from I-15 near Horsethief Canyon Road portrays an existing view and visual simulation of the Proposed Modifications as seen from I-15 near Horsethief Canyon Road. The photograph represents a motorist's brief view traveling southeast along I-15, a freeway. In this area, the freeway also includes existing wood poles and overhead conductor.

The simulation portrays the introduction of new LWSPs and TSPs along I-15. As shown in the simulation, the new poles would be visible against the sky. A comparison of the existing view and simulation image provided in *Figure 3.2-6: Existing View and Visual Simulation from I-15 near Horsethief Canyon Road* indicates that the Proposed Modifications would represent an incremental change to the streetscape visual setting. The new poles would be taller than the existing wood poles. The form and color of the new poles make them appear similar to the

existing wood poles seen along the freeway. In this respect, the degree of visual change associated with the Proposed Modifications would not substantially alter the existing character of the landscape setting at this location as compared to the analysis of the Approved Project in the Final EIR.

Viewpoint 11 – I-15 at Indian Truck Trail

Figure 3.2-7: Existing View and Visual Simulation from I-15 at Indian Truck Trail portrays an existing view and visual simulation of the Proposed Modifications as seen from I-15 at Indian Truck Trail. The photograph represents a motorist's brief view traveling southeast along I-15, a freeway. In this area, the freeway also includes existing wood and steel poles, overhead conductor, cell phone tower, and billboards. Streetlights are also prominent vertical elements seen on the left side of the street. Located approximately one to six miles away, mountains appear in the backdrop on the left side.

The simulation portrays the introduction of new TSPs and LWSPs along I-15. The I-15 crossing is approximately 500 feet southeast of the approved route crossing, which followed an existing distribution line. As shown in the simulation, the upper portions of some of the new poles would be visible against the sky, whereas lower portions and poles further in the distance that would be seen against vacant land and mountains in the backdrop. A comparison of the existing view and simulation image provided in *Figure 3.2-7: Existing View and Visual Simulation from I-15 at Indian Truck Trail* indicates that the Proposed Modifications would represent an incremental change to the streetscape visual setting. The new poles would not substantially affect views of the distant mountains seen in the backdrop. Although the new poles would be taller than some of the existing wood and steel poles, as well as the streetlights, the cell phone tower and some of the wood and steel poles are taller than the new poles. The form and color of the new poles make them appear similar to the existing power poles, cell phone tower, and streetlights seen along the freeway. In this respect, the degree of visual change associated with the Proposed Modifications would not substantially alter the existing character of the landscape setting at this location as compared to the analysis of the Approved Project in the Final EIR.

Given the presence of existing utility structures, the visual change would be incremental; therefore, the Proposed Modifications would not substantially affect the area's aesthetic character. In addition, SCE would implement APMs AES-SCE-2 through AES-SCE-4, as revised in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications*, which include use of non-specular 954 SAC conductors, galvanized poles with a flat finish, and locating poles off ridgelines except in areas where an existing pole line exists, to reduce the contrast and presence of the subtransmission line. Non-specular 954 SAC conductors and galvanized poles with a flat finish would reduce the glare from these components, which would reduce their contrast with the landscape. In accordance with revised APM AES-SCE-4, locating poles off ridgelines, except in areas where an existing pole line exists, would reduce the appearance of the poles against the sky along the majority of the subtransmission line. As described previously, the location of subtransmission line poles along Segment 6 atop hills along an existing distribution line to span jurisdictional waters would not result in any new significant impacts or substantially increase the severity of a previously identified significant impacts to visual resources. As a result, impacts from the subtransmission line would be less than significant (Class III), which is consistent with the Final EIR's determination. Therefore, the

Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact VIS-3 as compared to the Final EIR.

Impact VIS-4: New Source of Light or Glare Affecting Daytime or Nighttime Views

The Final EIR indicated that TSPs and LWSPs along the proposed subtransmission line would be galvanized with a flat finish. SCE would implement APMs AES-SCE-2 and AES-SCE-3, which require the use of non-specular conductors and galvanized poles with a flat finish, to lessen the glare from the subtransmission line. With APMs AES-SCE-2 and AES-SCE-3, the impact on daytime and nighttime views due to increased glare would be considered less than significant (Class III).

Construction of the Proposed Modifications would typically occur during daytime hours. However, on occasion, construction activities may be required at night, and would therefore require lighting. Staging areas may also be lit for the safe operation of construction equipment and for security. All such lighting would be installed and operated in conformance with applicable local lighting ordinances and regulations. If nighttime lighting would be necessary, it would generally be directed and focused away from off-site locations to the extent feasible. If temporary construction lighting is required, lighting would be directed away from nearby residences to the extent feasible. Because this impact is temporary in nature and the affected views would generally be brief in duration, these visual effects would be considered less than significant (Class III).

The subtransmission line would not involve new lighting. Therefore, the Proposed Modifications would not create a substantial source of new nighttime lighting.

With respect to potential glare effects, in accordance with APMs AES-SCE-2 (revised) and AES-SCE-3, SCE would use non-specular 954 SAC conductors, and galvanized poles with a flat finish. The guard structures and shoofly poles would be wood poles that would not create glare and would be removed following construction. Given the previously described aspects of the proposed lighting design, the Proposed Modifications would not result in a substantial new source of light or glare that would adversely affect day or nighttime views in the area. As a result, impacts would be less than significant (Class III), which is consistent with the Final EIR's assessment. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact VIS-4 as compared to the Final EIR.

3.2.2.3 Additional Evaluation

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.2.3 Summary

As indicated in *Table 3.2-4: Significance of Impact Changes – Visual Resources*, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

Table 3.2-4: Significance of Impact Changes – Visual Resources

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable AMMs/MMs	Proposed Modifications: Applicable AMMs/MMs[1]
Impact VIS-1: Adverse Effect on a Scenic Vista	Class I (Significant and Unavoidable)	Class I (Significant and Unavoidable)	APM AES-SCE-1 APM AES-SCE-2 APM AES-SCE-3 APM AES-SCE-4	APM AES-SCE-1 APM AES-SCE-2 (revised) APM AES-SCE-3 APM AES-SCE-4 (revised)
Impact VIS-2: Damage to Scenic Resources within a State Scenic Highway	Class I (Significant and Unavoidable)	Class I (Significant and Unavoidable)	APM AES-SCE-1 APM AES-SCE-2 APM AES-SCE-3 APM AES-SCE-4	APM AES-SCE-1 APM AES-SCE-2 (revised) APM AES-SCE-3 APM AES-SCE-4 (revised)
Impacts VIS-3: Degradation to Existing Visual Character	Class I (Significant and Unavoidable)	Class I (Significant and Unavoidable)	APM AES-SCE-1 APM AES-SCE-2 APM AES-SCE-3 APM AES-SCE-4	APM AES-SCE-1 APM AES-SCE-2 (revised) APM AES-SCE-3 APM AES-SCE-4 (revised)
Impact VIS-4: New Source of Substantial Light or Glare Affecting Daytime or Nighttime Views	Class III (Less than Significant)	Class III (Less than Significant)	APM AES-SCE-1 APM AES-SCE-2 APM AES-SCE-3 APM AES-SCE-4	APM AES-SCE-1 APM AES-SCE-2 (revised) APM AES-SCE-3 APM AES-SCE-4 (revised)

Source: CPUC, 2010

[1] Refer to *Chapter 2 – Proposed Modifications* for details on the revised measures.

3.2.4 References

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3.3 BIOLOGICAL RESOURCES

This section summarizes the impacts to biological resources identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project Proposed modifications (Proposed Modifications) relevant to biological resources, and analyzes the potential effects of the Proposed Modifications, applicant-proposed measures (APMs), and revised mitigation measures (MMs), as presented in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Project Modifications*. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified impact as compared to the Final EIR.

3.3.1 Summary of Final EIR

The Final EIR determined that the impacts to biological resources would be less than significant after mitigation. *Table 3.3-1: Summary of Final EIR Impacts and Mitigation Measures – Biological Resources* summarizes the impacts, significance determinations, and applicable APMs and MMs from the Final EIR for biological resources associated with the Approved Project.

Table 3.3-1: Summary of Final EIR Impacts and Mitigation Measures – Biological Resources

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact BIO-1: Effects on Sensitive Biological Communities and Sensitive Species. The Final EIR concluded that effects on Sensitive Biological Communities and Sensitive Species. Construction activities associated with the Approved Project have the potential to impact special-status plant and wildlife species and their habitats.	Class II (Less than Significant after Mitigation)	BIO-APM 1 BIO-APM 3 BIO-APM 5 BIO-APM 8 BIO-APM 9 BIO-APM 10 BIO-APM 12 BIO-APM 13 BIO-APM 14 MM BIO-1a MM BIO-1b MM BIO-1c MM BIO-1d MM BIO-1e MM BIO-1f MM BIO-1g MM BIO-1h MM BIO-1i
Impact BIO-2: Wetlands and Riparian Habitats. The Final EIR concluded that wetlands and Riparian Habitats. Ground-disturbing activities associated with the Approved Project have the potential to impact wetland and riparian habitats.	Class II (Less than Significant after Mitigation)	BIO-APM 1 BIO-APM 2 BIO-APM 3 BIO-APM 4 BIO-APM 6 BIO-APM 7 BIO-APM 8 BIO-APM 9 BIO-APM 10 MM BIO-2a MM BIO-2b
Impact BIO-3: Migratory Wildlife. The Final EIR concluded that the Approved Project has the potential to impact migratory wildlife through the construction of wildlife barriers.	Class II (Less than Significant after Mitigation)	BIO-APM 1 BIO-APM 3 BIO-APM 12 BIO-APM 14 MM BIO-1a MM BIO-1c MM BIO-1d MM BIO-1e MM BIO-1f MM BIO-1g MM BIO-1h MM BIO-1i MM BIO-2a MM BIO-2b
Impact BIO-4: Local Policies. The Final EIR concluded that the Approved Project would result in permanent direct impacts to local trees.	Class II (Less than Significant after Mitigation)	MM BIO-4a

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact BIO-5: Conservation Plans. The Final EIR concluded that Southern California Edison (SCE) would participate in the Multiple Species Habitat Conservation Plan (MSHCP) as a Participating Special Entity (PSE) in order to get "take" authorization for any impacts to special-status species listed as Covered under the MSHCP.	Class II (Less than Significant after Mitigation)	MM BIO-1a MM BIO-1c MM BIO-1d MM BIO-1e MM BIO-1f MM BIO-1g MM BIO-1h MM BIO-1i MM BIO-2a MM BIO-2b

Source: California Public Utilities Commission (CPUC), 2010

3.3.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on biological resources from the Proposed Modifications.

3.3.2.1 Methodology

Potential impacts to biological resources from the construction of each Proposed Modification were determined based on an assessment of whether or not the Proposed Modifications would result in new impacts to special-status species and their habitats, additional impacts to wetlands and riparian areas, new impediments to migratory wildlife, and/or conflicts with local policies or conservation plans. Species are considered special status if they meet one or more of the following criteria:

- Plant and animal species listed as endangered, threatened, or candidates for listing under the federal Endangered Species Act (ESA)
- Plant and animal species listed as endangered, threatened, or candidates for listing under the California ESA
- Animals designated as Fully Protected Species, as defined in California Fish and Game Code Sections 3511, 4700, 5050, and 5515
- Animal species designated as Species of Special Concern by the California Department of Fish and Wildlife (CDFW)
- Plant species listed as California Rare Plant Rank (CRPR) 1B, 2, 3, or 4 by the California Native Plant Society
- Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) as protected by the Bald and Golden Eagle Protection Act
- Plant and animal species considered Covered Species under the Western Riverside County MSHCP

Potential impacts associated with the Proposed Modifications can be classified as either direct or indirect, and temporary or permanent. Direct impacts are those that occur immediately as a result of construction of the Proposed Modifications, such as habitat loss or incidental take of a species. For the purposes of this document, incidental take is defined as causing unintentional harassment, harm, or direct mortality to a special-status plant or wildlife species individual as a direct result of construction activities.

Indirect impacts, such as the introduction of invasive plant species, are those that may affect a specific species or the habitat in the vicinity of the construction areas once the Approved Project with Proposed Modifications has been completed. Temporary impacts generally include impacts associated with construction activities, including the use of vehicles or helicopters, storage of construction materials and equipment, blasting, increased human activity and noise, or vegetation removal in areas that would be restored once construction is complete. Permanent impacts generally include impacts associated with permanent tree or vegetation removal for the establishment of a new right-of-way (ROW), conversion of natural habitat to paved or developed areas, or increased vehicular use associated with operation and maintenance activities resulting from the Proposed Modifications.

The methodology used for this analysis is generally consistent with the methodology used for the Final EIR, and is based on biological surveys conducted within all or part of the study area associated with the Approved Project and Proposed Modifications between 2006 and 2013. The Final EIR did not calculate impacts to vegetation communities based on specific impact areas associated with the Approved Project because at that time, more detailed design and construction information was not known. Instead, the Final EIR provided the total amount of each vegetation community within 50 feet of the subtransmission alignment. Since the time of the Final EIR, biological surveys were conducted within 500 feet of the centerline as appropriate depending on the species survey requirements and vegetation communities present, as well as refinement of design and construction details. These additional surveys, have allowed for an updated analysis of potential biological resource impacts. *Table 3.3-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Biological Resources* summarizes the significance level of impacts associated with the each Proposed Modifications based on the updated surveys and analysis, and provides a comparison to the applicable impact from the Final EIR.

Table 3.3-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Biological Resources

Proposed Modifications	Impact BIO					Discussion
	-1 Sensitive Communities and Species	-2 Wetlands and Riparian	-3 Migratory Wildlife	-4 Local Policies	-5 Conservation Plans	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications						
Segment Realignment	✓	✓	NA	✓	NA	Segment realignment associated with the Proposed Modifications has the potential to affect Impact BIO-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	✓	NA	✓	NA	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact BIO-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Span Length/Pole Height/ Number of Poles	✓	✓	✓	✓	NA	Modified span length/pole height/number of poles associated with the Proposed Modifications has the potential to affect Impact BIO-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact BIO					Discussion
	-1 Sensitive Communities and Species	-2 Wetlands and Riparian	-3 Migratory Wildlife	-4 Local Policies	-5 Conservation Plans	
Additional Pole Types	✓	NA	NA	NA	NA	The use of additional pole types for the Proposed Modifications has the potential to affect Impact BIO-1 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Conductor Configuration	✓	NA	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications has the potential to affect Impact BIO-1 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Access Road Design Changes	✓	✓	✓	✓	NA	Access road design changes associated with the Proposed Modifications have the potential to affect Impact BIO-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact BIO					Discussion
	-1 Sensitive Communities and Species	-2 Wetlands and Riparian	-3 Migratory Wildlife	-4 Local Policies	-5 Conservation Plans	
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications						
Staging Areas	✓	✓	NA	NA	NA	The use of new staging areas for the Proposed Modifications has the potential to affect Impact BIO-1 and -2 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impact as compared to the Final EIR.
String Set-Up Areas	✓	✓	NA	✓	NA	Stringing set-up areas associated with the Proposed Modifications have the potential to affect Impact BIO-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	✓	✓	NA	NA	NA	Use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact BIO-1 and -2 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact BIO					Discussion
	-1 Sensitive Communities and Species	-2 Wetlands and Riparian	-3 Migratory Wildlife	-4 Local Policies	-5 Conservation Plans	
Guard Structure Installation	✓	✓	NA	NA	NA	The use of guard structures for the Proposed Modifications has the potential to affect Impact BIO-1 and -2 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Shoofly Installation	✓	✓	NA	NA	NA	The use of a shoofly for the Proposed Modifications has the potential to affect Impact BIO-1 and -2 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Blasting/ Fracturing	✓	✓	NA	NA	NA	The use of blasting/fracturing for the Proposed Modifications has the potential to affect Impact BIO-1 and -2 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts impact as compared to the Final EIR.
Helicopter Use	✓	NA	✓	NA	NA	The use of helicopters for the Proposed Modifications has the potential to affect Impact BIO-1 and -3 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact BIO					Discussion
	-1 Sensitive Communities and Species	-2 Wetlands and Riparian	-3 Migratory Wildlife	-4 Local Policies	-5 Conservation Plans	
Telecommunications System Modifications						
Underground Installation	✓	✓	NA	✓	NA	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact BIO-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.3.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Overhead Installation	NA	NA	NA	NA	NA	Overhead installation of the telecommunications system associated with the Proposed Modifications would not result in changes to biological resource impacts as compared to the Final EIR. The new conductor type planned for the overhead installation of the telecommunications system would follow the Suggested Practices for Raptors on Power Lines: State of the Art in 1996 (Avian Power Line Interaction Committee 1996).

Note: NA = Not Applicable

3.3.2.2 Western Riverside County Multiple Species Habitat Conservation Plan

Under the Participating Special Entity (PSE) provision, the Regional Conservation Authority (RCA) of Riverside County may grant permission to SCE to construct projects within the area covered by the MSHCP, as described in Section 6.1.6 of the MSHCP and Section 11.8 of the Implementation Agreement. As is typical for SCE, projects that seek coverage under the MSHCP, a PSE application would be prepared and accompanied by a biological technical report that would include survey results as well as a MSHCP consistency analysis. In response, if RCA determines the Project is consistent with MSHCP policies, and assuming SCE pays the requisite mitigation fees, RCA would issue a Certificate of Inclusion authorizing potential impacts to Covered Species, defined as those 146 species within the MSHCP area and conserved by the MSHCP. These 146 species are discussed in Sections 2.1.4 and 9.2 of the MSHCP.

All biological surveys have been and would continue to be conducted consistent with the MSHCP. SCE is familiar with the goals and policies of the MSHCP and has obtained take authorization through the MSHCP on other projects. As explained in the Final EIR, the Approved Project would be consistent with the MSHCP goals and policies designed to protect special-status species and their habitats. Authorization under the MSHCP would also serve as mitigation under the Final EIR.

In the unlikely event that SCE does not participate in the MSHCP or encounters a species not covered by the MSHCP, mitigation as proposed in the Final EIR and in this Project Modification Report (PMR) would still ensure that all impacts to biological resources from the Proposed Modifications are less than significant (Class II) and would not conflict with the MSHCP. Further, if authorization for take of listed species is necessary, but not obtained through the MSHCP, take authorization would be obtained through another appropriate mechanism pursuant to the federal ESA and the California ESA.

3.3.2.3 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to biological resources as identified in the Final EIR, and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.3.2.4 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications is provided. As described in *Table 3.3-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Biological Resources* the overhead installation of the telecommunications system do not affect biological resources and are not detailed further. In addition, because the impacts associated with the overhead installation of the telecommunications system would be similar to those identified for the modified conductor configuration along the Valley-Ivyglen 115 kV Subtransmission Line, the analysis of biological resources covers the remaining modifications.

Impact BIO-1: Effects on Sensitive Biological Communities and Sensitive Species

Vegetation Communities

The Final EIR indicated that permanent impacts to sensitive vegetation communities would result from disturbance associated with permanent roads and structures. Temporary impacts to vegetation communities would occur due to clearing of areas required for access roads, stringing sites, pole removal and installation areas, and other temporary work and staging areas. According to the Final EIR, approximately 0.05 acre of permanent impacts to vegetation would result from the installation of light-weight steel poles (LWSPs) and tubular steel poles (TSPs), and approximately 31 acres of permanent impacts to vegetation would result from constructing new access roads. The Final EIR indicated that approximately 177 acres of temporary ground disturbance would result from the construction of the Approved Project. In addition, permanent impacts to vegetation would occur due to the generation of dust from construction activities and the introduction and growth of invasive plant species due to clearing activities.

The Final EIR did not quantify impacts to each individual vegetation community because the Approved Project was still in the design phase and certain components, such as access roads, had not been sited. Instead, as mentioned previously in *Section 3.3.2.1 Methodology*, the Final EIR provided a summary of the type and amount of certain vegetation communities within 50 feet of the Approved Project alignment. Since the release of the Final EIR, the design of the Approved Project with Proposed Modifications has been refined, and components such as access roads have been preliminarily sited. As such, and not related directly to the Proposed Modifications, potential impacts to all vegetation communities based on the most recent design and updated survey results, have been provided in *Table 3.3-3: Potential Vegetation Communities Impacts.*

Table 3.3-3: Potential Vegetation Communities Impacts

Vegetation Community		Approved Project with Proposed Modifications Temporary Impacts (acres)	Approved Project with Proposed Modifications Permanent Impacts (acres)
Agriculture Field Crop		5.79 to 6.66	2.36 to 2.71
Chamise Chaparral	Undisturbed	2.18 to 2.51	0.24 to 0.28
	Disturbed	0.34 to 0.39	--
Cismontane Alkali Marsh	Undisturbed	0.30 to 0.35	0.01
	Disturbed	0.28 to 0.32	0.07 to 0.08
Coast Live Oak Woodland		1.13 to 1.30	0.01
Non-Native Grassland	Undisturbed	50.88 to 58.51	9.33 to 10.73
	Disturbed	32.31 to 37.16	3.11 to 3.58
Open Water		0.13 to 0.15	--
RAFS	Undisturbed	2.35 to 2.70	0.01
	Disturbed	2.74 to 3.15	0.05 to 0.06
Riparian Scrub, Woodland, Forest	Riparian Scrub	0.61 to 0.70	< 0.01
	Southern Cottonwood/Willow Riparian Forest	3.28 to 3.77	0.30 to 0.35
	Southern Sycamore/Alder Riparian Woodland	0.10 to 0.12	--
	Mule Fat Scrub	1.18 to 1.36	0.12 to 0.14
Riversidean Sage Scrub[1]	Undisturbed	5.13 to 5.90	2.55 to 2.93
	Disturbed	55.38 to 63.69	9.01 to 10.36
Southern Willow Scrub		1.29 to 1.48	0.09 to 0.10
Upland Southern Willow Scrub		0.27 to 0.31	--
TOTAL Outside of Developed Areas		**165.67 to 190.53**	**27.26 to 31.35**
Developed Land		133.68 to 153.73	10.77 to 12.39
TOTAL		**299.35 to 344.26**	**38.03 to 43.74**

Note: Impacts to vegetation communities associated with the Approved Project with Proposed Modifications are based on the most recent design and updated survey results. Impacts are subject to change based on the final design of the Proposed Modifications.

[1] The Final EIR named areas of sage scrub habitat within the vicinity of the Approved Project coastal sage scrub. Due to the Approved Project's location, this vegetation community type has been renamed Riversidean sage scrub within this PMR. All future references to coastal sage scrub have been updated accordingly.

Several MMs identified in the Final EIR are also relevant to the Proposed Modifications. MM BIO-1a (revised) requires that the boundaries of sensitive vegetation communities be flagged, and that removal of native vegetation communities including, but not limited to, intact coastal sage scrub, disturbed coastal sage scrub, riparian vegetation, wetland habitat, and mature trees be minimized. Flagging of sensitive areas would be identified during pre-construction surveys and all construction activities would be under the oversight of a biological monitor. The revision to MM BIO-1a is specific to Riversidean alluvial fan sage scrub (RAFS) and is discussed in detail in the *Riversidean Alluvial Fan Sage Scrub* section that follows. Further, impacts and mitigation specific to vegetation communities associated with wetlands and riparian habitats are discussed below in *Impact BIO-2: Wetlands and Riparian Habitats*.

MM BIO-1c requires that best management practices (BMPs) be implemented to avoid the introduction and/or spread of controllable invasive plant species. MM BIO-2b requires that BMPs, prescribed by a Storm Water Pollution Prevention Plan (SWPPP), be implemented to minimize direct and indirect impacts to vegetation communities associated with erosion and dust generation. If visible dust is present during construction activities, standard dust suppression (e.g., water spraying) and other techniques will be used in all ground disturbance areas. MM BIO-2b and other required dust suppression techniques would also minimize temporary impacts to sensitive vegetation and special-status plants resulting from dust generated by helicopter use and blasting activities.

Consistent with the MSHCP and MM BIO-1a, the removal of native vegetation for the Proposed Modifications would be avoided and minimized to the maximum extent practicable. Temporarily impacted areas would be returned to pre-existing contours and revegetated with appropriate native species, where needed. Further, environmentally sensitive areas will be monitored for an additional one-year period following construction to assess the effectiveness of the protective measures. On-site restoration of temporarily impacted areas as well as implementation of applicable APMs and MMs, including but not limited to pre-construction surveys, limiting sensitive vegetation removal, and biological monitoring oversight, would ensure that impacts to sensitive vegetation communities resulting from the Proposed Modifications would be reduced to less-than-significant levels (Class II), consistent with the Final EIR for the Approved Project.

Riversidean Sage Scrub

The Final EIR indicated that construction of the subtransmission line and new access roads would result in impacts to approximately 6.94 acres of previously undisturbed Riversidean sage scrub.[1] Riversidean sage scrub is an MSHCP Covered vegetation community and could be fully mitigated by participating in the MSHCP. In addition, the Final EIR indicated that approximately 59.78 acres of previously disturbed Riversidean sage scrub would also be impacted. The Final EIR determined that impacts to Riversidean sage scrub resulting from the Approved Project would be reduced to less-than-significant levels by implementing MMs BIO-1a and BIO-1b as well as compliance with MSHCP (Class II).

The Proposed Modifications are anticipated to temporarily impact between approximately 5.13 to 5.90 acres and permanently impact between approximately 2.55 and 2.93 acres of undisturbed Riversidean sage scrub. This apparent increase of between approximately 0.74 and 1.89 acres would result, in part, from the realignment of the subtransmission line and the inclusion of

additional poles along the subtransmission line. However, as described previously *Section 3.3.2.1 Methodology*, the Final EIR did not calculate impacts to vegetation communities based on specific impact areas associated with the Approved Project. Since the release of the Final EIR, surveys have been updated and the design of the Approved Project with Proposed Modifications has been refined, and components such as access roads have been sited. As such, and not related directly to the Proposed Modifications, potential impacts to all vegetation communities including undisturbed coastal sage scrub, have been updated based on the most recent design and survey results. Impacts to vegetation communities can be fully mitigated. SCE would comply with the MSHCP and implement MM BIO-1a (revised), BIO-1c, and BIO-2b to avoid, minimize, and mitigate potential impacts. Therefore, similar to all vegetation communities discussed previously, impacts to coastal sage scrub would be reduced to less-than-significant levels (Class II), consistent with the Final EIR for the Approved Project.

Riversidean Alluvial Fan Sage Scrub

The Final EIR identified RAFS as occurring within 50 feet of Approved Project components; however; the Final EIR did not discuss a mitigation strategy for this vegetation community because impacts were not fully known at that time. In reviewing the Final EIR, impacts to RAFS from the Approved Project would be most prevalent along Segment 7 and 8 of the Valley-Ivyglen 115 kV Subtransmission Line alignment. Because the Proposed Modifications realign portions of Segment 7 and most of Segment 8 outside of areas containing RAFS, the Proposed Modifications would reduce the total impacts to RAFS as compared to what they would have been based on the alignment in the Final EIR.

MM BIO-1a has been revised to include avoidance, minimization, and mitigation, specifically for impacts to RAFS. Temporary impacts to RAFS would be restored to pre-construction conditions using species similar to those present prior to disturbance. Permanent impacts to RAFS would be mitigated pursuant to the MSHCP with the specific details determined during the MSHCP PSE process. Mitigation may include purchase of replacement land at not less than a one-to-one ratio and/or restoration at a two-to-one ratio in an off-site location. All mitigation is subject to review and approval by the RCA with concurrence from the United States (U.S.) Fish and Wildlife Service (USFWS) and CDFW. Revisions to MM BIO-1a would not increase the significance of impacts to RAFS or other vegetation communities beyond what was discussed in the Final EIR because the revision proposes both on-site and off-site mitigation for temporary and permanent impacts to this vegetation type.

In the unlikely event that SCE does not participate in the MSHCP, the Approved Project's overall habitat monitoring and reporting plan (HMMP) would still include restoration and mitigation requirements for RAFS, and would be subject to review and approval by the USFWS and CDFW. The restoration plan would include, but not be limited to, identification of responsible parties, restoration details and schedule, monitoring and maintenance, and success criteria. With the implementation of MMs BIO-1a (revised), BIO-1c, and BIO-2b, impacts to RAFS would be reduced to a less-than-significant level (Class II), consistent with the Final EIR for the Approved Project.

Special-Status Plant Species

The Final EIR indicated that construction, operation, and maintenance of the Approved Project would impact special-status plant species. As discussed previously in regards to impacts to vegetation communities, the Final EIR indicated that approximately 0.05 acre of permanent impacts to vegetation would result from the installation of LWSPs and TSPs and approximately 31 acres of permanent impacts to vegetation would result from constructing new access roads. In addition, permanent indirect take of vegetation and plants could occur due to the generation of dust from construction activities and the introduction and growth of invasive plant species due to clearing activities. The Final EIR indicated that 177 acres of temporary ground disturbance would result from the construction of the Approved Project; however, not all of this disturbance area would be located in suitable habitat for special-status plant species. The Final EIR determined that impacts to special-status plant species would be reduced to a less-than-significant level with the implementation of MMs BIO-1a, BIO-1b, BIO-1c, and BIO-2b (Class II).

Impacts associated with the Proposed Modifications would be similar in nature to those described in the Final EIR. Proposed Modifications may result in the permanent loss of special-status plant species from direct loss of habitat associated with new permanent structures and access roads, as well as impacts to special-status plant species individuals during construction. The total amount of permanent impacts to vegetation communities occurring outside of developed areas resulting from the Approved Project, with Proposed Modifications included, would be between approximately 27.26 and 31.35 acres. The total amount of temporary impacts to vegetation communities occurring outside of developed areas associated with the Approved Project, with Proposed Modifications included, would be between approximately 165.57 and 190.53 acres. Due to ground disturbance from additional poles and work areas, the temporary and permanent impacts to special-status plant species habitat that may occur as a result of Proposed Modifications would be up to approximately 13.83 acre greater than those described in the Final EIR. Further, dust generated from various construction activities could directly or indirectly affect special-status plants. However, the increase in impacts to special-status plant species due to additional ground disturbance and dust generation would be reduced to a less-than-significant (Class II) level through the implementation of APMs and MMs. To avoid special-status plant species, SCE would implement MMs BIO-1a (revised), BIO-1b (revised), BIO-1c, and BIO-2b.

MM BIO-1a (revised) requires that environmentally sensitive areas, including those that would encompass special-status species, would be flagged and that vegetation removal would be limited during construction. Identification of these sensitive areas and special-status plants would be done during pre-construction surveys as well as under the oversight of a biological monitor during construction. The environmentally sensitive areas would be monitored for an additional one-year period following construction to assess the effectiveness of the protective measures.

MM BIO-1b (revised) requires that pre-construction surveys be conducted to identify populations of special-status species in the vicinity of the Approved Project which would also be applicable to the Proposed Modifications. Any identified populations would be flagged, and an avoidance buffer would be established to protect any special-status plant seedbank that may be present.

MM BIO-1c requires that all vehicles and equipment be cleaned prior to arrival and inspected to ensure that they are free of soil and debris in order to avoid spreading invasive weeds.

Proposed revisions to MMs BIO-1a were addressed previously in the *Vegetation Communities* discussion, including an explanation that the revisions to these MMs do not result in increased significance levels. Specific to special-status plants, revisions to MM BIO-1b are also proposed to address four parts of this measure, but the measure continues to maintain the same effectiveness as the original measure in the Final EIR, which is to avoid, minimize, and mitigate for any impacts to special-status plants consistent with procedures established by the MSHCP and consistent with SCE expected approval as a PSE.

The first proposed revision to MM BIO-1b addresses the requirement that pre-construction surveys would be conducted during the appropriate blooming and precipitation period. The entire project alignment has been assessed and surveyed for special-status plants off and on since 2006. The blooming period for each of the special-status plants vary greatly throughout the year and all plant surveys have been conducted pursuant to the MSHCP, and federal and state protocols. Pre-construction surveys only serve to build upon information already known and should not be required only during appropriate blooming and precipitation periods. The results of the pre-construction surveys will be used to help establish areas to be avoided during construction and to enable SCE to refine the placement of specific project elements in the field to minimize impacts to special-status plants. The biologist/botanist would record any sensitive plants occurring within the area of potential disturbance, including those covered and not covered by the MSHCP. Further, it should be noted that not all plant species bloom at the same time or even near the same period annually. Each special-status plant species has an individual blooming period that varies and/or overlaps with other special-status plant species. Pre-construction surveys are generally conducted at one time not less than 30 days prior to start of construction, meaning if surveys for each different plant species had to be conducted within the multiple appropriate blooming periods (generally spread out over the spring and summer months), it would not be possible to conduct surveys during multiple blooming periods all within one 30-day period prior to start of construction.

The second proposed revision to MM BIO-1b addresses the requirement for on the ground soils mapping to be conducted. Mapping of sensitive soils was completed for western Riverside County during the County's MSHCP approval process in 2003. Additional soils mapping is not expected to differ substantially from the results obtained in 2003, offering no additional value to protecting special-status plant species.

The third proposed revision to MM BIO-1b addresses the requirement that a minimum buffer of 100 feet be established around flagged plant populations. To maintain consistency with the rest of this measure, which requires a 25-foot buffer from equipment staging and refueling, fill stockpiles, and trenching sites, SCE is proposing that the one reference to a "minimum buffer of 100 feet" be changed to "minimum buffer of 25 feet." Further, should SCE participate in the MSHCP, specific buffer distances are not required.

The fourth proposed revision to MM BIO-1b addresses changes for the purpose of clarification and flexibility dependent upon the sensitivity of a given plant species. Although some impacts to paniculate tarplant are anticipated, this species is widespread throughout the area and re-

establishes after disturbance. Therefore, mitigation would include, at a maximum, topsoil salvage and replacement within the same area of disturbance. The original MM BIO-1b states that "Conservation measures shall include preservation of portions of the impacted onsite plant populations. The Applicant will establish conservation easements within one year of construction implementation on any onsite and offsite mitigation site(s) to protect the populations in perpetuity." Although it is unlikely that CDFW would require a conservation easement for a species as widespread as paniculate tarplant, SCE would coordinate with CDFW to determine if a conservation easement would be required for this species. The original MM BIO-1b also references the USFWS; however, if a plant species is not covered by the MSHCP or is not federally listed, USFWS may choose not to be involved. Impacts to other special-status plants are not expected, but if other such species are discovered during pre-construction surveys, this measure includes requirements to address them accordingly. If needed, a HMMP would be prepared that would include at a minimum a quantification of unavoidable impacts to special-status plants; minimization and/or compensation through habitat preservation, restoration and/or enhancement; success criteria; parties responsible for ensuring success; and annual reporting requirements. In the event that SCE does not participate in the MSHCP to obtain approval for impacts to covered special-status plant species, CDFW, in cooperation with CPUC, would still have approval oversight of off-site mitigation.

In summary, approved protocol-level plant surveys have already been conducted in the appropriate blooming periods, and the pre-construction surveys would build on information already obtained over multiple years. Soils mapping has already been completed and the information would be available to SCE and the biological monitors. The request for the 25-foot buffer would be consistent with the other notations of 25 feet in this same measure. Further, SCE would either address all impacts consistent with the MSHCP or would mitigate through other provisions of MM BIO-1b as further outlined in a HMMP. For these reasons, the proposed changes to MM BIO-1b would continue to ensure that impacts are reduced to less-than-significant levels (Class II), consistent with the Final EIR.

Newly Identified Plant Species

Pre-construction surveys conducted since release of the Final EIR identified two additional special-status plant species, paniculate tarplant (*Deinandra paniculata*) and white rabbit tobacco (*Pseudognaphalium leucocephalum*), along the subtrasmission alignment. Paniculate tarplant is classified as CRPR 4.2[2] and white rabbit tobacco is classified as CRPR 2.2.[3] Neither of these species is covered by the MSHCP and impacts to them were not addressed in the Final EIR.

Based on the updated survey results, SCE anticipates that paniculate tarplant individuals and associated seedbank would be impacted by the Approved Project with or without construction of the Proposed Modifications. Paniculate tarplant individuals may be impacted by ground-disturbing activities along the subtransmission line. Paniculate tarplant was observed to be widespread along the Approved Project alignment, and this species has been observed to spread

[2] CRPR 4.2 species are considered watch list species that are fairly threatened in California. While CRPR does not identify these plants as "rare" from a statewide perspective, they are considered uncommon enough (by CRPR, not the MSHCP) that their status is monitored regularly.

[3] CRPR 2.2 species are considered fairly threatened in California, but more common elsewhere.

over a greater area following disturbance and removal of competitive non-native grasses (Sanders, Pers. Comm. 2013). Through pre-construction surveys and adjustments of construction activities in the field under the oversight of a biological monitor, impacts to paniculate tarplant would be avoided or minimized. Based on the fact that this species can be found throughout this area of Riverside County, its ability to re-establish after disturbance, and implementation of pre-construction surveys and biological monitoring, SCE does not anticipate that construction activities would result in a significant impact to paniculate tarplant. In the event that paniculate tarplant individuals cannot be avoided, SCE would implement MMs BIO-1a (revised), BIO-1b (revised), and BIO-1c, as previously described in detail. These measures include relocating individuals and/or salvaging topsoil, and returning it directly to the same area from which it was removed after construction activities are complete. Implementation of applicable species-specific measures would ensure that potential impacts to paniculate tarplant resulting from the Proposed Modifications would be reduced to less-than-significant levels (Class II), consistent the approach for other special-status species addressed in the Final EIR for the Approved Project.

The closest occurrences of white rabbit tobacco individuals are located approximately 140 feet south of an access road near Kicking Horse Drive along Segment 6 and approximately 35 feet away from the underground alignment along Segment 8. There is also a population along Segment 7, approximately 288 feet south of the subtransmission line. None of these individuals/populations would be within impact areas, and impacts to white rabbit tobacco are not anticipated. Similar to the paniculate tarplant, pre-construction surveys and biological monitoring oversight would further ensure that potential impacts to white rabbit tobacco resulting from the Approved Project and Project Modifications would be less than significant (Class II), consistent with the approach for other special-status species addressed in the Final EIR for the Approved Project.

Special-Status Wildlife Species

The Final EIR indicated that construction, operation, and maintenance of the Approved Project would impact special-status wildlife species. The Final EIR determined that temporary and permanent impacts from the Approved Project to special-status wildlife species (individuals) would be reduced to less-than-significant levels by MMs BIO-1a, and BIO-1d through BIO-1g, resulting in a less-than-significant impact (Class II). In addition, the Final EIR determined that conservation efforts by the applicant as a PSE under the MSHCP would provide conservation benefits to all wildlife species in all areas of the Approved Project.

Similar to the Approved Project in the Final EIR, the Proposed Modifications have the potential to impact special-status wildlife species through clearing and grading activities and the presence of field crews and equipment for installation of the subtransmission lines and telecommunications system. Direct removal of, or disturbance in proximity to, suitable habitat may cause abandonment or reduction of available suitable habitat both within and near the subtransmission alignment, and although unlikely has the potential to impact wildlife present within that habitat. The potential removal of foraging and breeding habitat for special-status small mammals, amphibians, and reptiles would be considered a permanent impact where it cannot be restored. In addition, impacts to special-status wildlife may occur if the animals are present during construction activities and are impacted by moving vehicles and equipment, or become entrapped in open trenches or excavation holes.

Further, helicopter use and blasting activities could temporarily impact special-status wildlife. Helicopters would generally be used to transport materials and crew members as well as support conductor stringing operations, in areas where the terrain would require extensive grading to allow access by conventional equipment. Therefore, helicopters would generally reduce impacts to special-status species by reducing the amount of ground disturbance and vegetation clearing required in potential species' habitat. However, helicopters also introduce new potential impacts to nesting birds as discussed in the *Nesting Birds* section that follows. In areas where conventional construction equipment cannot excavate due to the presence of rock, SCE would use blasting or fracturing to facilitate excavation. Blasting may occur during the construction of new access roads, site preparation, and excavation/foundation work activities. Holes would be drilled into rock and the explosive charges would be loaded into the holes. If blasting occurs in the proximity of nesting birds, increased noise levels could affect the behavior of nesting birds. SCE does not anticipate that blasting would be necessary along every segment.

All temporary and permanent impacts to special-status wildlife species resulting from the Proposed Modifications would be reduced to less-than-significant levels by MM BIO-1a (revised), and MMs BIO-1d through BIO-1h, as revised in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2-Project Modifications*. MM BIO-1a (revised) would reduce impacts to special-status wildlife species habitat by limiting native vegetation removal. MM BIO-1d requires that construction areas be sited to avoid special-status wildlife species and their habitats, and limits the removal of native vegetation. The pre-construction clearance surveys and biological monitoring required by MM BIO-1d would avoid and minimize direct and indirect impacts to wildlife species during construction activities, including near blasting sites and where ground crews may be assisting helicopter operations. Further, the biological monitor would relocate wildlife individuals out the way of construction work areas, equipment, vehicles, and blasting sites. MMs BIO-1e (revised) and BIO-1h (revised) are discussed in detail in the *Nesting Birds* section that follows.

Although the Proposed Modifications would increase the total area of ground disturbance (the bulk of which is temporary) between 129.354 and 179.95 acres as compared to impacts in the Final EIR, the construction activities associated with the Proposed Modifications would be similar to those activities discussed in the Final EIR for the Approved Project. Implementation of MMs discussed previously would ensure that the significance of impacts to special-status wildlife species would be consistent with the impacts discussed in the Final EIR for the Approved Project, which was less than significant (Class II).

Nesting Birds

As discussed in the Final EIR, trees, shrubs, and grasslands in the vicinity of the subtransmission line route provide suitable habitat for raptors and other nesting birds that are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Sections 3503 and 3503. Construction of the proposed subtransmission line may cause temporary impacts to migratory and resident bird populations by requiring the removal and trimming of trees and vegetation within the Approved Project footprint. If construction activities would impact nesting birds, this would be considered take under the MBTA and California Fish and Game Code. Disturbance from construction activities, such as noise, human presence, and habitat alteration due to the trimming of trees and clearing of native vegetation, could affect the nesting habits of

the special-status and migratory bird species. The Final EIR determined that temporary impacts to special-status and migratory bird populations would be reduced to less-than-significant levels by adoption of MMs BIO-1e, BIO-1f, BIO-1g, and BIO-1h (Class II).

Activities and noise levels associated with the majority of the Proposed Modifications would be similar in nature to those addressed in the Final EIR for the Approved Project and would not result in an increased significance of impact to nesting birds. However, as mentioned previously, the Proposed Modifications include two new activities, blasting and helicopter use, which were not discussed in the Final EIR. These activities may cause increased noise levels and dust emissions and as such, result in the destruction of nests, disruption of nesting behavior, and abandonment of active nests. Potential impacts from both blasting and helicopter use would most likely occur during the nesting season, which is generally February through August. Impacts to nesting birds and migratory bird populations would be reduced to less-than-significant levels by implementation of MMs BIO-1e (revised), BIO-1f, BIO-1g, and BIO-1h (Class II). These measures allow for construction to either be limited to outside of the nesting seasons for special-status and migratory birds, or require that exclusion zones determined by a qualified ornithologist be implemented around occupied nests during the nesting season. BIO MM-1e and its proposed revisions are discussed in more detail in the paragraph that follows.

SCE has proposed revisions to MM BIO-1e to remove the absolute exclusion zone buffer distances in the Final EIR. Instead, SCE would be required to prepare and implement a Nesting Bird Management Strategy (previously referred to as the Active Nest Buffer Modification Plan). Specifically, the proposed revisions to MM BIO-1e (revised) require that if active nests are found, a biological monitor with expertise in bird behavior would establish a species-specific buffer around the nest and no activities would be allowed within the buffer until the young have fledged from the nest or the nest fails. The Nesting Bird Management Strategy would establish buffers based on, but not limited to, the following: the bird species (some species are more tolerant of disturbance while other are less tolerant), location of nest building and active nests, threshold for nesting disturbance taking into account bird behavior, including signs of agitation, continuous focused nest monitoring by qualified biologists, background noise, type of construction activity, and dust emissions and noise levels from construction. This Nesting Bird Management Strategy was approved by CDFW for Fogarty Substation construction, and no impacts occurred to nesting birds. A similar strategy would be implemented for the Valley-Ivyglen Project.

Buffers would be adjusted to ensure that there would be no exceedance of an established threshold of behavioral agitation and other signs indicating disruption of nesting behavior. Buffers may be increased or decreased based on the opinion of the biologist with expertise in bird behavior to ensure that impacts to nesting birds would not occur. Further, the biologist in coordination with the Project's Lead Biologist may stop construction activities at any time if necessary. The Nesting Bird Management Strategy would also address avoidance and minimization of potential impacts by implementing buffers from blasting activities and helicopter use, and ensuring that dust suppression techniques are implemented. The Nesting Bird Management Strategy would establish a communication and reporting protocol involving SCE; biological monitors; and the CPUC, CDFW, and USFWS. The Nesting Bird Management Strategy will be prepared by the Project's Lead Biologist and would be subject to the approval of the CDFW (pursuant to the California Fish and Game Code) and USFWS (pursuant to the

MBTA). Implementation of this Plan would ensure that there would be no significant impacts to nesting birds pursuant to the MBTA or California Fish and Game Code.

MM BIO-1h (revised) would minimize noise impacts to migrating, foraging, and nesting special-status avian species. MM BIO-1h has been revised to include a nest disturbance threshold and/or the noise threshold that will be established in the Nesting Bird Management Strategy. Revisions to MMs BIO-1e and BIO-1h would not increase the significance of impacts to nesting birds beyond what was assessed in the Final EIR for the Approved Project. Further, helicopter use and blasting activities may be conducted outside of the nesting season, or during nesting season but outside of established buffers implemented per the Nesting Bird Management Strategy. As a result, impacts to nesting birds from the Proposed Modifications would be less than significant, consistent with the determination (Class II) in the Final EIR.

In addition to nesting birds afforded protection under the MBTA and CFGC, three special-status bird species including the burrowing owl (*Athene cunicularia*), least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) warrant further discussion to compare potential impacts between the Approved Project and Project Modifications. The Final EIR indicated that potential impacts to burrowing owl could result from the Approved Project. Impacts to burrowing owl resulting from the Proposed Modifications would be similar to those assessed in the Final EIR. MM BIO-1f ensures that burrowing owls are protected through pre-construction surveys and nest buffers, and includes provisions both pursuant to the MSHCP and directly through the CDFW in the unlikely event that SCE does not participate in the MSHCP. As such, impacts would remain less than significant (Class II), consistent with the Final EIR. The Final EIR also indicated that disturbance to riparian habitat may impact least Bell's vireo and southwestern willow flycatcher. Impacts to riparian habitats resulting from the Proposed Modifications would be similar to those assessed in the Final EIR. These impacts would be avoided, minimized, and mitigated through the Nesting Bird Management Strategy and the MMs described previously for all nesting birds, as well as through MM BIO-1g and MM BIO-2a (revised). MM BIO-1g requires that construction activities near suitable habitat for least Bell's vireo and southwestern willow flycatcher be conducted outside of the nesting season. If avoidance of occupied areas would not be possible, mitigation would be required in accordance with MSHCP Policy 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools). MM BIO-2a (revised) would ensure that impacts to riparian habitats and wetland areas are avoided, minimized, and/or mitigated. Revisions to MM BIO-2a include language to specify that a DBESP will be prepared as part of MSHCP PSE compliance for riparian/riverine impacts and do not weaken the efficacy of the measure. Should SCE not participate in the MSHCP, any riparian vegetation trimming would require a Section 1602 Lake or Streambed Alteration Agreement from the CDFW which would include conditions for riparian vegetation removal outside of nesting season as well as exclusion buffers during nesting season. Impacts to riparian birds would remain less than significant (Class II), consistent with the Final EIR.

Stephens' Kangaroo Rat

The Final EIR indicated that construction of the Approved Project would impact Stephens' kangaroo rat (*Dipodomys stephensi*) and its habitat. Similar to other terrestrial species, construction activities such as clearing and grading for subtransmission poles and new roads,

excavation for installation and removal of poles, and the presence of field crews and vehicles for installation of the subtransmission lines within the species' habitat may cause permanent or temporary impacts to Stephens' kangaroo rat. The Final EIR concluded that temporary and permanent impacts to Stephens' kangaroo rat would be reduced to less-than-significant levels by implementing the requirements of the MSHCP and MMs BIO-1a, BIO-1d, and BIO-1h, which would reduce impacts through avoidance and minimization (Class II).

The strategy for mitigating impacts to Stephens' kangaroo rat has changed since Final EIR approval. Although the Final EIR states that the MSHCP covers Stephens' kangaroo rat, incidental take of Stephens' kangaroo rat is not provided by the MSHCP because the Approved Project and Proposed Modifications occur within the Stephens' Kangaroo Rat Habitat Conservation Plan (HCP) boundary. In areas that fall within both regional HCPs, the Stephens' Kangaroo Rat HCP supersedes the MSHCP for providing incidental take for Stephens' kangaroo rat where needed. Through recent coordination with the Riverside County Habitat Conservation Agency (RCHCA), USFWS, and CDFW, SCE has established the Stephens' Kangaroo Rat HCP Agreement approved by RCHCA on September 20, 2012. The Agreement was approved with concurrence from the USFWS and CDFW, and results in a mechanism for take coverage of Stephens' kangaroo rat. As part of the Proposed Modifications, a new APM, BIO-APM 15, has been added to provide a measure to address potential impacts to Stephens' kangaroo rat in accordance with the mitigation payment mechanism established by the Stephens' Kangaroo Rat HCP. The Proposed Modifications are not located within or adjacent to any Stephens' Kangaroo Rat Core Reserve (conservation) areas, and no other minimization or MMs are specifically required by the Stephens' Kangaroo Rat HCP.

The Proposed Modifications are covered under an existing Stephens' Kangaroo Rat HCP Agreement entered into between RCHCA and SCE. Stephens' kangaroo rat has been found along several areas of the subtransmission line alignment including those associated with the Proposed Modifications, specific to realignment areas. Any impacts to Stephens' kangaroo rat would be fully mitigated through the Stephens' Kangaroo Rat HCP Agreement as needed. Accordingly, prior to start of construction, SCE would obtain a Certificate of Inclusion from the RCHCA. With the implementation of BIO-APM 15 and required biological monitoring, the Proposed Modifications would result in a less-than-significant (Class II) impact to Stephens' kangaroo rat.

In summary, impacts associated with the Proposed Modifications would be consistent with the impacts assessed in the Final EIR, and the Proposed Modifications would not result in any new significant impacts or substantially increase the severity of the impact related to Impact BIO-1 as compared to the Final EIR.

Impact BIO-2: Wetlands and Riparian Habitats

The Final EIR indicated that the Approved Project would impact certain jurisdictional areas including wetlands, vernal pool, and riparian habitats mapped during surveys conducted in 2006 and 2009 along the subtransmission alignment. The Final EIR described several distinct, well-developed riparian zones associated with hydrologic features that would be impacted, including but not limited to, the San Jacinto River area, Temescal Wash, and streams and drainages in the vicinity of the Lake Street. The Final EIR determined that impacts on wetlands, vernal pools, and riparian/riverine habitat from the Approved Project would be reduced to less-than-significant

levels by MMs BIO-2a and BIO-2b, which focus on the avoidance of impacts during the design and construction phases of the Approved Project, as well as the adoption of construction techniques that would reduce impacts (Class II).

Valley-Ivyglen 115 kV Subtransmission Line and Telecommunications System Modifications

Direct permanent impacts from the Proposed Modifications on wetland, vernal pool, and riparian habitat may occur as a result of pole placement or grading of new roads. Indirect and temporary impacts to riparian habitat may result from clearing of existing vegetation, which in turn exposes topsoil to weathering. Weathering of topsoil in the form of erosion can remove topsoil necessary for plant growth both in the graded areas and in lower areas affected by increased runoff. The Proposed Modifications would result in direct impacts to wetlands, vernal pool habitat,[4] and riparian habitat through vegetation removal and ground disturbance to these habitats. Direct impacts to riparian communities are provided in *Table 3.3-3: Potential Vegetation Communities Impacts*. Approximately 0.03 acre of vernal pool habitat may be temporarily impacted by the Approved Project with Proposed Modifications compared to approximately 0.51 acre of impacts to vernal pool habitat described in the Final EIR. Impacts to vernal pool habitat were mapped and assessed separately from the vegetation communities impacts discussed in *Table 3.3-3: Potential Vegetation Communities Impacts.* Indirect impacts to aquatic systems would also occur from increased and altered site drainage runoff, dust generation from construction activities, the application of herbicides for fire protection and weed abatement purposes along the ROW, and the possible propagation of invasive plants that colonize after clearing.

To reduce direct and indirect impacts to wetland and riparian habitats, SCE would implement the same APMs and MMs discussed in the Final EIR. MM BIO-2a (revised) requires pre-construction surveys for wetlands and aquatic habitat, and flagging the boundaries of these features for avoidance. This MM would limit construction activities inside the boundaries of any wetland, riparian zone, or vernal pool; otherwise, additional restoration and/or mitigation of temporary and permanent impacts may be required. MM BIO-2a has also been revised to clarify that non-culverted drainages will be crossed and temporary impacts to them should be considered in the analysis.

In order to further minimize impacts, SCE would access jurisdictional areas using overland access under the oversight of a biological monitor instead of grading new access roads, where possible. If an access road is needed in any if these areas, no berming on either side of the road would be allowed to ensure there is no change in the hydrology of the area. Further, MMs BIO-2b and BIO-1c require the implementation of robust BMPs designed to reduce impacts resulting from clearing of native vegetation, creation of fugitive dust, and the propagation of invasive plant species.

Where avoidance of riparian areas, jurisdictional drainages, or wetlands is not possible, SCE will obtain all appropriate permits, such as a U.S. Army Corps of Engineers (USACE) Section 404 Nationwide Permit, a Clean Water Act (CWA) Section 401 Water Quality Certification through the State Water Resources Control Board (SWRCB), and a CDFW Section 1602 Lake or

[4] Vernal pool habitat includes the grassland and other vegetation surrounding the vernal pool depression. Impacts to vernal pool habitat should not be confused with impacts to vernal pools.

Streambed Alteration Agreement. SCE would be subject to the terms and conditions of each of these permits.

Per MM BIO-2a (revised), SCE will restore temporarily impacted wetlands, riparian zones, and other aquatic resources to pre-construction conditions, and monitor them during and after disturbance. Restoration efforts would be outlined in the HMMP to include at a minimum, a quantification of unavoidable impacts to wetlands and riparian habitats, minimization and/or compensation through habitat preservation, long-term monitoring requirements, restoration and/or enhancement, success criteria, parties responsible for ensuring success, and annual reporting requirements. This plan would also be submitted to and approved by the USACE, USFWS, CDFW, and the CPUC prior to initiating any mitigation activities. At a minimum, mitigation ratios would be one-to-one for wetlands and riparian areas. Mitigation may include compensation and conservation of in-kind, off-site areas at a minimum ratio of two-to-one. High-quality riparian zones, as determined by a qualified wetland biologist in consultation with the CPUC, USACE, CDFW, and USFWS, could possibly be mitigated at a higher ratio.

The Proposed Modifications would not increase the significance of impacts to wetlands and riparian areas beyond those described for the Approved Project in the Final EIR with implementation of the following:

- Approved Project-specific SWPPP;
- APMs and MMs included in the Final EIR and revised accordingly; and
- Requirements per the terms and conditions of the USACE Section 404 Nationwide Permit, SWRCB CWA Section 401 Water Quality Certification, and CDFW Section 1600 Lake or Streambed Alteration Agreement.

Should impacts to riparian/riverine habitat, as defined under the MSHCP, be unavoidable, SCE would also prepare a DBESP as part of the MSHCP PSE process. The DBESP would contain similar information as the previously described HMMP, but would also need to demonstrate that the objective of maintaining riparian/riverine habitat for species covered by the MSHCP is being met with appropriate mitigation.

Impacts to individual species associated with wetlands and riparian habitats would further be reduced to less-than-significant (Class II) levels by implementing measures pertaining to special-status species, as outlined by MMs BIO-1a (revised), BIO-1b (revised), BIO-1d, BIO-1e (revised), BIO-1g, BIO-1h (revised), and BIO-1i. By reducing access roads in sensitive areas, BMPs and SWPPP implementation, compliance with MM BIO-2a, implementing multiple measures pertaining to sensitive vegetation communities and special-status plants and wildlife, obtaining regulated waters permits, and agency oversight, impacts would be less than significant and consistent with the Final EIR (Class II) determination. Therefore, the Proposed Modifications would not result in any new significant impacts or substantially increase the severity of the impact related to Impact BIO-2 as compared to the Final EIR.

Impact BIO-3: Migratory Wildlife

The Final EIR determined that although permanent, direct impacts to terrestrial species' migration routes would occur due to the construction of approximately 16 miles of new

roadways, the implementation of MMs described in Impacts BIO-1 and BIO-2 to avoid and minimize impacts to special-status terrestrial and aquatic species, wetlands, and riparian habitats would reduce the impacts to less-than-significant levels (Class II).

Valley-Ivyglen 115 kV Subtransmission Line and Telecommunications System Modifications

Roadways act as barriers to movement, sometimes creating genetically isolated populations. After construction, these roadways would be used infrequently during operations and maintenance, with use ranging from occasional to quarterly. Thus, the disruptive effect of roadways on the movement of any native or migratory species is expected to be less than significant (Class II). Movement of fish, other aquatic organisms, and birds associated with riparian corridors along the route would also be temporarily impacted by any work within or near these sensitive habitats. Impacts relating to noise and the presence of construction crews associated with Proposed Modifications would be temporary impacts and would be similar to impacts assessed in the Final EIR. The measures described to offset Impacts BIO-1 and BIO-2 to avoid and minimize impacts to special-status terrestrial and aquatic species and wetland and riparian habitats, most notably nesting bird buffers and pre-construction surveys, would reduce the impacts to less-than-significant levels, which is consistent with the Final EIR determination (Class II).

As previously discussed, the Approved Project with Proposed Modifications includes the installation of approximately 495 to 570 LWSPs and 107 to 123 TSPs, and the Approved Project in the Final EIR included the installation of approximately 620 LWSPs and 45 TSPs. Therefore, the Proposed Modifications would require additional poles to be installed when compared to the Approved Project. However, overhead facilities are not generally associated with impacts to wildlife migration, as poles do not limit the movement of terrestrial or avian species. With the implementation of the APMs and MMs included in the Final EIR, impacts associated with the Proposed Modifications to migratory wildlife will be consistent with the Final EIR determination of less than significant (Class II).

SCE anticipates that approximately 10.3 miles of dirt or gravel access roads would be permanently constructed or permanently widened, and would be utilized to allow access to structures and other components. Based on species present and types of habitat recorded during multiple survey years, SCE does not anticipate impacts to migratory wildlife from the grading and vegetation removal required to construct access roads. However, due to ROW limitations, the installation of retaining walls to reduce erosion and support access roads in steep terrain may create barriers to terrestrial wildlife movement. Retaining walls would be designed to avoid impacts to wildlife migration and would be subject to review pursuant to the MSHCP. This includes appropriate siting, minimizing the length of retaining walls, and orienting the walls so that wildlife movement is not impeded for an extended period of time. Final siting and design of retaining walls would be coordinated with the RCA, USFWS, and CDFW to ensure that impacts to wildlife movement would not occur. New APM-BIO 17 would ensure that impacts to wildlife movement caused by retaining walls or slope stabilization would be reduced to less than significant levels.

The subtransmission alignment is located within the Pacific Flyway, a major north-south avian migratory corridor that extends along the West Coast from Alaska to Patagonia, and provides

suitable foraging habitat for many resident and migratory avian species that are protected under the MBTA. The Pacific Flyway links breeding grounds in the north to more southerly wintering areas and is therefore utilized by an abundance of bird species during migration. The vegetation communities present within the impact area associated with the Proposed Modifications provides resting and foraging areas for birds during the migratory seasons. Although the subtransmission alignment is located along the Pacific Flyway, the flyway encompasses the majority of California. The presence of helicopters and the resulting noise disturbance caused by helicopter use may dissuade avian species from using the area as resting or foraging habitat along their migration route. Due to the temporary and limited nature of helicopter use, the avian migration routes associated with the Pacific Flyway would not be significantly impacted by the Proposed Modifications. A brief discussion of the Pacific Flyway would be included in the Nesting Bird Management Strategy.

SCE would implement MMs BIO-1a (revised), BIO-1c, BIO-1d, BIO-1i, and BIO-2a (revised) to reduce the potential for construction activities to impact migratory wildlife. MM BIO-1a would minimize impacts to vegetation, leaving intact species habitat for movement. MM BIO-1c would reduce the potential to spread invasive weeds, thus protecting habitat used by migrating wildlife. MM BIO-1d requires pre-construction surveys, which would reduce the potential for construction activities to directly take or indirectly impact migratory wildlife. MM BIO-1i would reduce the potential for species entrapment during construction. MM BIO 2a (revised) would avoid, minimize, and mitigate for impacts to wetland and riparian habitat, which act as important migration stopovers and corridors for terrestrial and avian species. With the implementation of the APMs and MMs, as revised in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Project Modifications* included in the Final EIR, would not increase the significance of impacts to wildlife migration beyond those described for the Approved Project in the Final EIR. As a result, impacts would be less than significant and consistent with the Final EIR's Class II determination. Therefore, the Proposed Modifications would not result in any new significant impacts or substantially increase the severity of the impact related to Impact BIO-3 as compared to the Final EIR.

Impact BIO-4: Local Policies

The Final EIR indicated that permanent direct impacts to locally protected trees would occur as a result of segment realignments and the construction of access roads. Removing locally protected trees would be necessary to install new poles in areas where the proposed route passes through upland or riparian vegetation. Additional tree trimming or removal would be required along access roads and at some staging areas and pull sites. The Final EIR determined that, through implementation of APMs and MMs, impacts to locally protected trees would be reduced to less-than-significant levels (Class II).

Valley-Ivyglen 115 kV Subtransmission Line and Telecommunications System Modifications

Impacts to locally protected trees resulting from the Proposed Modifications would be similar to impacts assessed in the Final EIR. To reduce these impacts, many areas containing trees, such as riparian drainages and upland vegetation communities, would be spanned, eliminating the need for tree removal. However, some trees may be trimmed to protect the subtransmission line and to reduce fire danger. Removing or trimming trees in protected communities, such as oak woodlands, would be done in a manner that minimizes effects on nesting birds, as described in

MM BIO-1d and in accordance with local tree removal ordinances required by Riverside County. Removal of Eucalyptus trees (*Eucalyptus* spp.) and Peruvian peppertrees (*Schinus molle*) along the Approved Project route may be necessary; however, non-native trees are not protected by the Riverside County local tree ordinances. The City of Lake Elsinore does have a local ordinance that protects some species of palm trees, but it is not anticipated that the removal of palm trees would be necessary. Significant impacts to native trees would be reduced to less-than-significant (Class II) levels by MM BIO-4a, which requires that a Tree Removal Permit be obtained prior to construction activities. Therefore, the Proposed Modifications would not increase the significance of impacts to locally protected trees beyond those described for the Approved Project in the Final EIR. As a result, through the implementation of MMs BIO-1d and BIO-4a, impacts would be less than significant and consistent with the Final EIR's Class II determination. Therefore, the Proposed Modifications would not result in any new significant impacts or substantially increase the severity of the impact related to Impact BIO-4 as compared to the Final EIR determination of Class II.

Impact BIO-5: Conservation Plans

The Final EIR indicated that SCE would participate in the MSHCP as a PSE in order to obtain take authorization of special-status species covered by the MSHCP. SCE would implement MM BIO-5a, which requires that the Approved Project comply with all regulations and policies pursuant to the MSHCP.

As described in the Final EIR, the Approved Project is located within two MSHCP Linkage areas (Proposed Linkage 2 and Proposed Constrained Linkage 19) of the MSHCP that were not discussed in the Final EIR. Each MSHCP Core, Linkages, Proposed Linkage, and Constrained Linkage is important in providing key habitat and movement corridors for Covered Species depending on the overall species-specific objectives noted in the MSHCP. The Proposed Modifications would also be located within Proposed Linkage 2 and Proposed Constrained Linkage 19 and would not impede establishment of key habitat or movement corridors, nor conflict with MSHCP conservation goals and objectives. Due to the linear nature of the Approved Project, that the facilities are primarily overhead, and the Approved Project components are focused within or near developed areas and utilize existing utility corridors where possible, the Approved Project would not significantly impact large, intact, and interconnected habitat blocks of the MSHCP Core and Linkage system. All biological surveys have been conducted consistent with the MSHCP. In addition, MMs proposed previously in discussions for Impacts BIO-1, BIO-2, and BIO-3 would alleviate impacts to sensitive vegetation, special-status Covered Species, and migratory corridors.

SCE anticipates that MSHCP Additional Reserve Lands (ARL) would be impacted during construction of the Proposed Project. SCE has prepared a new APM to avoid, minimize, and mitigate for impacts to ARL. BIO-APM 16 requires that impacts to MSHCP ARL be avoided if possible, but if not, all temporarily impacted areas would be restored to pre-project conditions using the species present prior to disturbance. Should any permanent impacts to ARL result from the Approved Project, SCE would dedicate biologically equivalent or superior land to the MSHCP. SCE would prepare an ARL equivalency analysis to be included as part of the MSHCP PSE submittal. This equivalency analysis would compare the potential effects on the ARL to the benefits of proposed replacement land, including compensation for potentially lost MSHCP

functions and values. The analysis would consider specific Approved Project with Proposed Modifications design features, including consideration of the siting and design guidelines and MSHCP BMPs, and shall address effects on Covered Species and Habitats, Core areas, Linkages, Constrained Linkages, MSHCP Conservation Area configuration and management, and ecotones. The replacement land ratio is anticipated to be no less than two-to-one within MSHCP Core 1, but would ultimately be determined through the MSHCP PSE process and consistency findings made by RCA and with concurrence from the USFWS and CDFW. Compliance with APM-BIO 16 would ensure that impacts to ARL would be reduced to less-than-significant (Class II) levels.

Pursuant to the California Environmental Quality Act (CEQA), all projects are evaluated for conflicts with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. In the event that SCE does not participate in the MSHCP, the CEQA process would evaluate whether the project conflicts with the MSHCP. As discussed previously, all biological surveys and implementation of the APMs and MMs would be consistent with the MSHCP.

As discussed previously in the *Special-Status Wildlife* section, the Approved Project with the Proposed Modifications included is consistent with the Stephens' Kangaroo Rat HCP pursuant to the RCHCA SKR HCP Agreement approved in September 20, 2012. SCE will obtain a Certificate of Inclusion for the project prior to the start of construction. APM-BIO 15 was also discussed previously to capture this recent process to address Stephens' kangaroo rat take authorization through the Stephens' Kangaroo Rat HCP, in coordination with RCHCA and with concurrence from the USFWS and CDFW.

With the implementation of all APMs and MMs, consistency with the MSHCP and implementation of the RCHCA Agreement, regional conservation plans would not be impacted beyond what was approved in the Final EIR. As a result, impacts to conservation plans would be less than significant and consistent with the Final EIR's Class II determination. Therefore, the Proposed Modifications would not result in any new significant impacts or substantially increase the severity of the impact related to Impact BIO-5 as compared to the Final EIR.

3.3.2.4 Additional Evaluation

The CEQA Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.3.3 Summary

SCE's range of avoidance, minimization, and MMs, and consistency and/or participation in applicable HCPs, pursuant to implementing provisions applicable to utilities, would ensure all biological impacts are addressed appropriately. Further, in the event that SCE does not participate in the MSHCP, other measures have been included in the Final EIR and this PMR to ensure that impacts would remain less than significant. As outlined in *Table 3.3-4: Significance of Impact Changes – Biological Resources,* the Proposed Modifications would not result in any new significant impacts or substantially increase the severity of significant impacts on biological resources identified in the Final EIR. Therefore, impact significance levels identified in the Final

EIR would either be less than the Final EIR or not change as a result of the Proposed Modifications.

Table 3.3-4: Significance of Impact Changes – Biological Resources

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[5]
Impact BIO-1: Effects on Sensitive Biological Communities and Sensitive Species	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	BIO-APM 1 BIO-APM 3 BIO-APM 5 BIO-APM 8 BIO-APM 9 BIO-APM 10 BIO-APM 12 BIO-APM 13 BIO-APM 14 MM BIO-1a MM BIO-1b MM BIO-1c MM BIO-1d MM BIO-1e MM BIO-1f MM BIO-1g MM BIO-1h MM BIO-1i MM BIO-2a MM BIO-2b	BIO-APM 1 BIO-APM 3 BIO-APM 5 BIO-APM 8 BIO-APM 9 BIO-APM 10 BIO-APM 12 BIO-APM 13 BIO-APM 14 BIO-APM 15 MM BIO-1a (revised) MM BIO-1b (revised) MM BIO-1c MM BIO-1d MM BIO-1e (revised) MM BIO-1f MM BIO-1g MM BIO-1h (revised) MM BIO-1i MM BIO-2a (revised) MM BIO-2b

[5] Refer to *Chapter 2 – Proposed Modifications* for details on the revised measures.

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[5]
Impact BIO-2: Wetlands and Riparian Habitats	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	BIO-APM 1 BIO-APM 2 BIO-APM 3 BIO-APM 4 BIO-APM 6 BIO-APM 7 BIO-APM 8 BIO-APM 9 BIO-APM 10 MM BIO-2a MM BIO-2b	BIO-APM 1 BIO-APM 2 BIO-APM 3 BIO-APM 4 BIO-APM 6 BIO-APM 7 BIO-APM 8 BIO-APM 9 BIO-APM 10 MM BIO-1a (revised) MM BIO-1e (revised) MM BIO-1g MM BIO-1h (revised) MM BIO-1i MM BIO-2a (revised) MM BIO-2b
Impact BIO-3: Migratory Wildlife	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	BIO-APM 1 BIO-APM 3 BIO-APM 12 BIO-APM 14 MM BIO-1a MM BIO-1c MM BIO-1d MM BIO-1e MM BIO-1f MM BIO-1g MM BIO-1h MM BIO-1i MM BIO-2a MM BIO-2b	BIO-APM 1 BIO-APM 3 BIO-APM 12 BIO-APM 14 BIO-APM 15 BIO-APM 17 MM BIO-1a (revised) MM BIO-1c MM BIO-1d MM BIO-1e (revised) MM BIO-1f MM BIO-1g MM BIO-1h (revised) MM BIO-1i MM BIO-2a (revised) MM BIO-2b

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[5]
Impact BIO-4: Local Policies	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM BIO-4a	BIO-APM 15 (new) MM BIO-1a (revised) MM BIO-1b (revised) MM BIO-1c MM BIO-1e (revised) MM BIO-1f MM BIO-1h (revised) MM BIO-4a
Impact BIO-5: Conservation Plans	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM BIO-1a MM BIO-1c MM BIO-1d MM BIO-1e MM BIO-1f MM BIO-1g MM BIO-1h MM BIO-1i MM BIO-2a MM BIO-2b	BIO-APM 16 MM BIO-1a (revised) MM BIO-1c MM BIO-1d MM BIO-1e (revised) MM BIO-1f MM BIO-1g MM BIO-1h (revised) MM BIO-1i MM BIO-2a (revised) MM BIO-2b

Source: CPUC, 2010

3.3.4 References

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Attachment 3.4-A: Description of Cultural Resources Located within the Modified API

3.4 CULTURAL RESOURCES

This section summarizes the impacts to cultural resources identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to cultural resources, and analyzes the potential effects of the Proposed Modifications on cultural resources. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

3.4.1 Summary of Final EIR

The Final EIR determined that impacts to cultural resources would be less than significant after mitigation. *Table 3.4-1: Summary of Final EIR – Cultural Resources* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for cultural resources associated with the Approved Project.

Table 3.4-1: Summary of Final EIR – Cultural Resources

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact CUL-1: Adverse Change in the Significance of an Historic Resource. The Final EIR determined that construction activities have the potential to affect historic resources in the vicinity of the Approved Project.	Class II (Less than Significant after Mitigation)	APM CULT-SCE-1 APM CULT-SCE-3 MM CUL-1a MM CUL-1b MM CUL-1c MM CUL-1d
Impact CUL-2: Adverse Change in the Significance of an Archaeological Resource. The Final EIR determined that construction of the Approved Project has the potential to impact archaeological resources.	Class II (Less than Significant after Mitigation)	APM CULT-SCE-1 APM CULT-SCE-3 MM CUL-1a MM CUL-1b MM CUL-1c MM CUL-1d
Impact CUL-3: Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature. Portions of the subtransmission line and telecommunications system would be located within the Temescal Canyon Basin, which is underlain by the Silverado Formation.	Class II (Less than Significant after Mitigation)	APM CULT-SCE-1 APM CULT-SCE-3 MM CUL-1b MM CUL-1d MM CUL-3a
Impact CUL-4: Disturb Human Remains, Including Those Interred Outside of Formal Cemeteries. The Final EIR determined that, although no human burials or cemeteries have been identified in the Approved Project area through previous research and field surveys, construction of the Approved Project would have the potential to disturb human remains.	Class II (Less than Significant after Mitigation)	APM CULT-SCE-2 MM CUL-1a MM CUL-1b MM CUL-1c

Source: California Public Utilities Commission (CPUC), 2010

3.4.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on cultural resources from the Proposed Modifications.

3.4.2.1 Methodology

Potential impacts to cultural resources resulting from the construction of each Proposed Modification were determined based on an assessment of whether the modification would involve ground disturbance in the vicinity of known or potential cultural resources. *Table 3.4-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Cultural Resources* summarizes the significance level of impacts associated with the Proposed Modifications and provides a comparison to the applicable impacts from the Final EIR.

Table 3.4-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Cultural Resources

Proposed Modifications	Impact CUL				Discussion
	-1	-2	-3	-4	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications					
Segment Realignment	✓	✓	NA	✓	Segment realignment associated with the Proposed Modifications has the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	✓	✓	✓	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact CUL-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Pole Span Length/Pole Height/Number	✓	✓	✓	✓	The modified pole span length/pole height associated with the Proposed Modifications would not result in changes to cultural resources impacts as compared to the Final EIR. Modified number of poles associated with the Proposed Modifications has the potential to affect Impact CUL-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Additional Pole Types	✓	✓	NA	✓	The use of additional pole types for the Proposed Modifications has the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact CUL				Discussion
	-1	-2	-3	-4	
Modified Conductor Configuration	NA	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to cultural resources impacts as compared to the Final EIR. The modified conductor configuration would not impact cultural resources because it would be strictly an overhead activity and no ground disturbance would occur.
Access Road Design Changes	✓	✓	NA	✓	Access road design changes associated with the Proposed Modifications have the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications					
Staging Areas	✓	✓	NA	✓	The use of new staging areas for the Proposed Modifications has the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Stringing Setup Areas	✓	✓	NA	✓	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	✓	✓	NA	✓	The use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact CUL				Discussion
	-1	-2	-3	-4	
Guard Structure Installation	✓	✓	NA	✓	The use of guard structures for the Proposed Modifications has the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Shoofly Installation	✓	✓	NA	✓	The use of a shoofly for the Proposed Modifications has the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Blasting/ Fracturing	✓	✓	NA	✓	The use of blasting/fracturing has the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Use	NA	NA	NA	NA	The use of helicopters for the Proposed Modifications would not result in changes to cultural resources impacts as compared to the Final EIR. Helicopter use would not involve ground disturbance; therefore, this Proposed Modification would not impact cultural resources.
Telecommunications System Modifications					
Underground Installation	✓	✓	✓	✓	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact CUL-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact CUL				Discussion
	-1	-2	-3	-4	
Overhead Installation	NA	NA	NA	NA	Overhead installation of the telecommunications system associated with the Proposed Modifications would not result in changes to cultural resources impacts as compared to the Final EIR. Overhead installation of the telecommunications system would not impact cultural resources because it is strictly an overhead activity, and no ground disturbance would occur.

Note: NA = Not Applicable

3.4.2.2 Effect of the Proposed Modification on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to cultural resources as identified in the Final EIR and evaluate whether the Proposed Modifications would affect the respective impact determination reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.4.2.3 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. The modifications to the configuration of the Valley-Ivyglen 115 kV Subtransmission Line conductors and the overhead installation of the telecommunications system do not affect cultural resources and are not described further, as provided in *Table 3.4-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Cultural Resources*. The analysis of cultural resources impacts covers all other Proposed Modifications.

Summary of Cultural Resources within the Proposed Modifications

Proposed Modifications to the Valley-Ivyglen 115 kV Subtransmission Line and underground telecommunication system have resulted in a shift in the location of construction activities. As part of this shift, some new construction areas have been added, approved construction areas removed, and/or approved construction areas have been expanded or reduced. As a result, there are 28 cultural resources addressed in the Final EIR that are no longer located within the Area of Potential Impacts (API) for ground-disturbing activities. The API for the Valley-Ivyglen 115 kV Subtransmission Line is a 200-foot-wide buffer on either side of the alignment—a 400-foot-wide corridor. There would be no impacts to these 28 resources; consequently, there is no further analysis of Proposed Modification impacts or management recommendations proposed for these resources.

There are an additional 37 cultural resources within the modified API (the Approved Project with the Proposed Modifications incorporated) that were not previously reviewed in the Final EIR, and six resources addressed in the Final EIR remain within the modified API. In contrast to the API, the Area of Direct Impact (ADI) is a disturbance area needed for the construction of the Approved Project with the Proposed Modifications applied. Supplemental surveys conducted by LSA Associates, Inc. in May 2013 included the ADI that would extend beyond previously studied areas and/or is outside of the API (Miller 2013).

Table 3.4-3: Summary of Cultural Resources Located within the Modified API summarizes cultural resources identified within the modified API, including those reviewed in the Final EIR and those that were not previously addressed. Descriptions of these resources are provided in *Attachment 3.4-A: Description of Cultural Resources Located within the Modified API*. There are a total of 43 cultural resources located within the modified API. Of these, two are listed in or are eligible for listing in the California Register of Historical Resources (CRHR), 23 are ineligible or recommended ineligible, and 17 have undetermined CRHR eligibility.

Table 3.4-3: Summary of Cultural Resources Located within the Modified API

Proposed Modification Component	Resource	Type	CRHR Eligibility Status	In Final EIR (Yes/No)	Impact	Applicable APMs/MMs[1]
Valley-Ivyglen 115 kV Subtransmission Line	P-33-000714/ CA-RIV-714/H	Site: Multicomponent	Eligible	Yes	CUL-1 CUL-2 CUL-4	MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised)
	P-33-017016	Site: Historic	Eligible	Yes	CUL-1	MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised)
	P-33-000657/ CA-RIV-657/H	Site: Prehistoric	Ineligible	No	CUL-1 CUL-2	MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised)
	P-33-006820/ CA-RIV-6820[a]	Site: Historic	Ineligible	No	CUL-1	None
	P-33-012196	Site: Historic	Ineligible	No	CUL-1	None
	P-33-014761	Site: Historic	Ineligible	No	CUL-1	None
	P-33-015416	Site: Prehistoric	Ineligible	No	CUL-2	MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised)
	P-33-015417/ CA-RIV-8129	Site: Prehistoric	Ineligible	No	CUL-2	MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised)
	P-33-015419/ CA-RIV-8131	Site: Prehistoric	Ineligible	No	CUL-2	MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised)
	P-33-015425/ CA-RIV-8136H	Site: Historic	Ineligible	No	CUL-1	None
	P-33-017021	Site: Historic	Ineligible	No	CUL-1	None

[1] See *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications* for revised MMs CUL-1a through CUL-1d.

Proposed Modification Component	Resource	Type	CRHR Eligibility Status	In Final EIR (Yes/No)	Impact	Applicable APMs/MMs[1]
Valley-Ivyglen 115 kV Subtransmission Line (continued)	P-33-017028	Site: Historic	Ineligible	No	CUL-1	None
	P-33-017890/ CA-RIV-9439, also P-33-014757	Site: Historic	Ineligible	No	CUL-1	MM CUL-1b (revised)
	P-33-001078/ CA-RIV-1078[b]	Site: Prehistoric	Ineligible	Yes	CUL-1 CUL-2	MM CUL-1b (revised)
	P-33-003832/ CA-RIV-3832H	Site: Historic	Ineligible	No	CUL-1	None
	P-33-015354/ CA-RIV-8110/ SRI-102H	Site: Historic	Ineligible	No	CUL-1	None
	P-33-015362/ CA-RIV-8118/ SRI-136H	Site: Historic	Ineligible	No	CUL-1	None
	P-33-015370/ APN 349050031	Site: Historic	Ineligible	No	CUL-1	None
	P-33-015426/ APN 391150017	Site: Historic	Ineligible	No	CUL-1	None
	P-33-000641/ CA-RIV-641[c]	Site: Prehistoric	Undetermined	No	CUL-2	MM CUL-1b (revised)
	P-33-000658 [c]	Site: Prehistoric	Undetermined	No	CUL-2	MM CUL-1b (revised)
	P-33-001655[d]	Site: Prehistoric	Undetermined	No	CUL-2	MM CUL-1b (revised)
	P-33-015355/ CA-RIV-8111H	Site: Historic	Undetermined	No	CUL-1	MM CUL-1b (revised)
	P-33-017022/ CA-RIV-8862H	Site: Historic	Undetermined	No	CUL-1	MM CUL-1b (revised)
	P-33-020456/ CA-RIV-10357	Site: Historic	Undetermined	No	CUL-1	MM CUL-1b (revised)

Proposed Modification Component	Resource	Type	CRHR Eligibility Status	In Final EIR (Yes/No)	Impact	Applicable APMs/MMs[1]
Valley-Ivyglen 115 kV Subtransmission Line (continued)	P-33-020457/ CA-RIV-10358	Site: Historic	Undetermined	No	CUL-1	MM CUL-1b (revised)
	P-33-020458/ CA-RIV-10359	Site: Historic	Undetermined	No	CUL-1	MM CUL-1b (revised)
	P-33-020515/ CA-RIV-10416	Site: Historic	Undetermined	No	CUL-1	MM CUL-1b (revised)
	P-33-020642/ CA-RIV-10546	Site: Historic	Undetermined	No	CUL-1	MM CUL-1b (revised)
	2007-CWA125-1	Site: Historic	Undetermined	Yes	CUL-1	MM CUL-1b (revised)
	P-33-003352/ CA-RIV-3352H	Site: Historic	Undetermined	Yes	CUL-1	MM CUL-1b (revised)
	P-33-015347/ CA-RIV-8103	Site: Prehistoric	Undetermined	Yes	CUL-2	MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised)
	P-33-015743/ CA-RIV-8196H	Site: Historic	Undetermined	No	CUL-2	MM CUL-1b (revised)
	P-33-001652/ CA-RIV-1652	Site: Historic	Undetermined	No	CUL-2	MM CUL-1b (revised)
	P-33-014758	Site: Historic	Undetermined	No	CUL-2	MM CUL-1b (revised)
	P-33-020454/ CA-RIV-10355	Site: Historic	Undetermined	No	CUL-2	MM CUL-1b (revised)
	P-33-023614/ CA-RIV-11588	Site: Historic	Undetermined	No	CUL-1 CUL-2	MM CUL-1b (revised)
	P-33-016642/ CA-RIV-8226	Site: Historic	Undetermined	No	CUL-1 CUL-2	MM CUL-1b (revised)
	P-33-015349/ CA-RIV-8105	Site: Historic	Undetermined	No	CUL-2	MM CUL-1b (revised)

Proposed Modification Component	Resource	Type	CRHR Eligibility Status	In Final EIR (Yes/No)	Impact	Applicable APMs/MMs[1]
Valley-Ivyglen 115 kV Subtransmission Line (continued)	P-33-023613/ CA-RIV-11587	Site: Historic	Undetermined	No	CUL-2	MM CUL-1b (revised)
	P-33-023612/ CA-RIV-11586	Site: Historic	Undetermined	No	CUL-2	MM CUL-1b (revised)
	P-33-17024	Isolate	Ineligible	No	None	None
Underground Telecommunication System	P-33-000630/ CA-RIV-630[c]	Site: Prehistoric	Undetermined	No	CUL-2	MM CUL-1b (revised)

[a] Bridge has been dismantled and destroyed.
[b] Site has been destroyed; milling station outcrop and other boulders have been removed from area for use as riprap.
[c] Resource was not relocated.
[d] Resource was not relocated; site is likely the same as P-33-015347.

Impact CUL-1: Adverse Change in the Significance of a Historic Resource

The Final EIR included the assessment of six cultural resources located within the modified API for Impact CUL-1. Of these, two resources are listed or are eligible for listing in the CRHR, one is CRHR ineligible or recommended ineligible, and the remaining three have undetermined CRHR eligibility. The Final EIR concluded that Approved Project-related impacts from the Valley-Ivyglen 115 kV Subtransmission Line, including the underground portion of the telecommunications system, would be reduced to less-than-significant levels (Class II) with the implementation of MMs CUL-1a through CUL-1d.

The Proposed Modifications require the assessment of a total of 27 historical and historic-era resources, including the six resources in the Final EIR addressed in the above paragraph, in order to determine whether there is potential for an adverse change to occur. Of the identified resources, two are listed or are eligible for listing in the CRHR, 14 are CRHR ineligible or recommended ineligible, and the remaining 11 have undetermined CRHR eligibility. *Table 3.4-3: Summary of Cultural Resources Located within the Modified API* provides a summary of the eligibility of each cultural resource that has been identified. *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications* describes the revisions to the MMs relevant to cultural resources.

Valley-Ivyglen 115 kV Subtransmission Line

Proposed Modifications to the Valley-Ivyglen 115 kV Subtransmission Line have the potential to impact historic-era or historical resources due to ground disturbance. More specifically, additional ground disturbance may be required as a result of the following Proposed Modifications:

- Segment realignment
- Underground conversion
- Additional poles
- Installation of guy poles in new proposed locations
- Access road design changes, such as widening of existing access roads, as well as the construction of new access roads and establishment of temporary access roads
- Work area modifications, such as new staging areas, new stringing setup areas, and helicopter operation yards
- Guard structure installation
- Shoofly installation
- Blasting/fracturing

Impact CUL-1 would be reduced to a less-than-significant level (Class II) by avoiding resources and implementing the revised versions of MMs CUL-1a through CUL-1d. The revisions to each of these measures and their effect on the assessments in the Final EIR are as follows:

- MM CUL-1a – This measure has been expanded to include all prehistoric archaeological sites within the API and requires that these sites will be avoided by designating all areas within 50 feet of these resources as Environmentally Sensitive Areas (ESAs). The revised MM CUL-1a also requires all construction personnel to be trained on the avoidance of

ESA prior beginning work on the project. These revisions would still allow for these resources to be avoided; therefore, they would not result in a change in the impact assessment from the Final EIR.

- MM CUL-1b – The revisions to this measure require a Construction Phase Management Plan (instead of a Cultural Resources Treatement Plan) to be developed. Because this plan will not deviate from the basic requirements of the Cultural Resources Treatment Plan, and will add detailed guidelines for the identification and management of cultural resources within the API, these revisions will not modify the Final EIR's assessment with regards to Impact CUL-1.

- MM CUL-1c – This revised measure requires that an archaeologist be retained and monitor for CRHR eligible and prehistoric archaeological sites within a specified buffer of ground-disturbing activities—400 feet, with the exception of P-33-000714, where monitoring will occur within 1,000 feet. Changes also include specifying the areas to be monitored, as well as to clarify that a qualified archaeologist is allowed to halt ground-disturbing activities in the immediate area of a cultural resources discovery, that a qualified archaeologist will be present to spot check sites containing Pleistocene to Holocene sediments, and that the level and duration of spot-checks may be suspended as warranted, through consultation with the CPUC. The reduced monitoring effort during ground-disturbing activities has been corrdinated with the Pechanga Band of Luiseño Indians and it will not change the potential for impact to these resources as ESAs will continue to be implemented. As a result, the revisions to this measure will not affect the conclusions in the Final EIR.

- MM CUL-1d – This measure has been modified to include steps to be taken in the event of an accidental discovery or recognition of human remains occurs. This revision was taken from the original MM CUL-1b; therefore, it will not affect the impact assessments that were made as part of the Final EIR.

Therefore, with the implementation of the revised measures, the Proposed Modifications would not result in a new significant impacts or substantially increase the severity of the impact related to Impact CUL-1 as compared to the Final EIR. A brief description of cultural resources in the API is presented in *Attachment 3.4-A: Description of Cultural Resources Located within the Modified API*.

Telecommunications System Modifications

Installation of the underground portion of the telecommunications system could potentially result in adverse impacts to unidentified historical resources; however, no known historical resources are located in the underground conversion area. If unanticipated resources are identified during construction, impacts would be reduced to a less-than-significant level through implementation of revised MM CUL-1b and MM CUL-1d (Class II). Therefore, the Proposed Modifications would not result in a new significant impacts or substantially increase the severity of the impact related to Impact CUL-1 as compared to the Final EIR.

Impact CUL-2: Adverse Change in the Significance of an Archaeological Resource

The Final EIR included the assessment of three archaeological resources located within the modified API, which could potentially result in an adverse change in the significance of an archaeological resource. Prehistoric and historic-era occupation site P-33-000714 (CA-RIV-714/H) is eligible for listing in the CRHR, while prehistoric archaeological milling site P-33-001078 (CA-RIV-1078) is CRHR ineligible, and bedrock milling slick site P-33-015347 (CA-RIV-8103) has undetermined CRHR eligibility. The Final EIR concluded that potential Approved Project-related impacts from the Valley-Ivyglen 115 kV Subtransmission Line, including the underground portion of the Telecommunication System, would be reduced to a less-than-significant level (Class II) by implementation of MM CUL-1a through MM CUL-1d.

The Proposed Modifications require the assessment of a total of 20 prehistoric and multi-component sites, including the three resources in the Final EIR addressed in the above paragraph, within the modified API to determine the potential for an adverse change in the significance of an archaeological resource to occur. As indicated in *Table 3.4-3: Summary of Cultural Resources Located within the Modified API*, of the specified sites, one resource is eligible for listing in the CRHR, five are CRHR ineligible or recommended ineligible, and 14 have undetermined CRHR eligibility.

Valley-Ivyglen 115 kV Subtransmission Line

Proposed Modifications to the Valley-Ivyglen 115 kV Subtransmission Line have the potential to result in an adverse change to archaeological resources due to ground disturbance. The additional ground-disturbing activities that would occur as a result of the Proposed Modifications include the following:

- Segment realignment
- Underground conversion
- Additional poles
- Installation of guy poles in new proposed locations
- Access road design changes, such as widening of existing access roads, as well as the construction of new access roads and establishment of temporary access roads
- Work area modifications, such as new staging areas, new stringing setup areas, and helicopter operation yards
- Guard structure installation
- Shoofly installation
- Blasting/fracturing

Potential impacts to archaeological resources would be reduced with the implementation of revised MM CUL-1a through MM CUL-1d. As a result, based on the Proposed Modifications, Impact CUL-2 would be reduced to a less-than-significant level with the implementation of these MMs (Class II). Therefore, the Proposed Modifications would not result in a new significant impacts or substantially increase the severity of the impact related to Impact CUL-2 as compared to the Final EIR.

Telecommunications System Modifications

The Proposed Modifications require the assessment of one archaeological resource, prehistoric site P-33-000630 (CA-RIV-630); however, the site was not relocated and consequently, CRHR eligibility status is undetermined. Potential impacts to P-33-000630 would be reduced to less-than-significant level through implementation of revised MM CUL-1b (Class II). In addition, installation of the underground portion of the telecommunications system could potentially result in adverse impacts to unidentified historical resources located in the underground conversion area. If unanticipated resources are identified during construction, impacts would be reduced to a less-than-significant level through implementation of revised MM CUL-1b through MM CUL-1d (Class II). Therefore, the Proposed Modifications would not result in a new significant impacts or substantially increase the severity of the impact related to Impact CUL-2 as compared to the Final EIR.

Impact CUL-3: Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature

The Final EIR indicates that the construction activities associated with the approved Valley-Ivyglen 115 kV Subtransmission Line, including the underground portion of the telecommunications system, have the potential to significantly impact paleontological resources within the Silverado Formation, as summarized in *Table 3.4-1: Summary of Final EIR – Cultural Resources*. Impacts would be reduced to less-than-significant levels through the implementation of MMs CUL-1b, CUL-1d, and CUL-3a (Class II). MM CUL-3a requires that a qualified paleontologist be present during ground-disturbing activities in areas of paleontological sensitivity.

The Proposed Modifications associated with the Valley-Ivyglen 115 kV Subtransmission Line, including the underground conversion of the telecommunications system, have the potential to significantly impact paleontological resources within the Silverado Formation (see *Table 3.4-1: Summary of Final EIR – Cultural Resources* and *Table 3.4-4: Significance of Impact Changes – Cultural Resources*). However, through avoidance and implementation of revised MM CUL-1b, revised CUL-1d, and CUL-3a, impacts would be reduced to less-than-significant levels (Class II). Therefore, the Proposed Modifications would not result in a new significant impacts or substantially increase the severity of the impact related to Impact CUL-3 as compared to the Final EIR.

Impact CUL-4: Disturb Human Remains, Including Those Interred Outside of Formal Cemeteries

The Final EIR included the assessment of one resource located within the current API with the potential to disturb to human remains. P-33-000714 (CA-RIV-714/H) was identified to have the potential to be sensitive for buried human remains previously unidentified through records, archival research, and pedestrian field surveys. The potential for impacting human remains associated with the Valley-Ivyglen 115 kV Subtransmission Line, including the underground portion of the telecommunications system, would be reduced to a less-than-significant level through the implementation of MM CUL-1a through MM CUL-1c (Class II).

The Proposed Modifications do not devitate from the assessments made in the Final EIR. The modifications, as proposed, require the assessment of P-33-000714 (CA-RIV-714/H) within the current API with regard to the potential for disturbing human remains, as shown in *Table 3.4-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Cultural Resources*. CRHR-eligible archaeological site P-33-000714 (CA-RIV-714/H) is located within the current API and, as previously described, has the potential to be sensitive for buried human remains.

Valley-Ivyglen 115 kV Subtransmission Line

Proposed Modifications to the Valley-Ivyglen 115 kV Subtransmission Line could potentially come into contact with human remains due to ground disturbance. The following additional ground disturbance is required as a result of the following Proposed Modifications:

- Segment realignment
- Underground conversion
- Additional poles
- Installation of guy poles in new proposed locations
- Access road design changes, such as widening of existing access roads, as well as the construction of new access roads and establishment of temporary access roads
- Work area modifications, such as new staging areas, new stringing setup areas, and helicopter operation yards
- Guard structure installation
- Shoofly installation
- Blasting/fracturing

The potential disturbance of human remains would be reduced to a less-than-significant level through implementation of revised MM CUL-1a through MM CUL-1c (Class II). Therefore, the Proposed Modifications would not result in a new significant impacts or substantially increase the severity of the impact related to Impact CUL-4 as compared to the Final EIR.

Telecommunications System Modifications

Installation of the underground portion of the telecommunications system could potentially result in disturbance to human remains; however, impacts would be reduced to a less-than-significant level through implementation of revised MM CUL-1a through MM CUL-1c (Class II). Therefore, the Proposed Modifications would not result in a new significant impacts or substantially increase the severity of the impact related to Impact CUL-4 as compared to the Final EIR.

3.4.2.3 Additional Evaluation

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.4.3 Summary

As indicated in *Table 3.4-4: Significance of Impact Changes – Cultural Resources*, Proposed Modifications would not significantly increase the severity of effects nor change the determinations of significance on cultural resources identified in the Final EIR. Therefore, impact significance levels identified in the Final EIR would not change as a result of the Proposed Modifications.

Table 3.4-4: Significance of Impact Changes – Cultural Resources

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[2]
Impact CUL-1: Adverse Change in the Significance of a Historical Resource	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM CULT-SCE-1 APM CULT-SCE-3 MM CUL-1a MM CUL-1b MM CUL-1c MM CUL-1d	APM CULT-SCE-1 APM CULT-SCE-3 MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised) MM CUL-1d (revised)
Impact CUL-2: Adverse Change in the Significance of an Archaeological Resource	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM CULT-SCE-1 APM CULT-SCE-3 MM CUL-1a MM CUL-1b MM CUL-1c MM CUL-1d	APM CULT-SCE-1 APM CULT-SCE-3 MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised) MM CUL-1d (revised)
Impact CUL-3: Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM CULT-SCE-1 APM CULT-SCE-3 MM CUL-1b MM CUL-1d MM CUL-3a	APM CULT-SCE-1 APM CULT-SCE-3 MM CUL-1b (revised) MM CUL-1d (revised) MM CUL-3a
Impact CUL-4: Disturb Human Remains, Including Those Interred Outside of Formal Cemeteries	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM CULT-SCE-2 MM CUL-1a MM CUL-1b MM CUL-1c	APM CULT-SCE-2 MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised)

Source: CPUC, 2010

[2] Refer to *Chapter 2 – Proposed Modifications* for details on the revised measures.

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ATTACHMENT 3.4-A: DESCRIPTION OF CULTURAL RESOURCES LOCATED WITHIN THE MODIFIED API

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3.5 GEOLOGY, SOILS, AND MINERAL RESOURCES

This section summarizes the impacts associated with geology, soils, and mineral resources identified in the Final Environmental Impact Report (EIR); describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to geology, soils, and mineral resources; and analyzes the potential effects of the Proposed Modifications on soils and mineral resources, as well as the effects associated with geology. As discussed in the following subsections, the Proposed Modifications would not result in new significant environmental impacts or substantially increase the severity of a previously identified impact as compared to the Final EIR.

3.5.1 Summary of Final EIR

The Final EIR determined that impacts associated with geology, soils, and mineral resources would be less than significant after mitigation. *Table 3.5-1: Summary of Final EIR – Geology, Soils, and Mineral Resources* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for geology, soils, and mineral resources associated with the Approved Project.

Table 3.5-1: Summary of Final EIR – Geology, Soils, and Mineral Resources

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact GEO-1: Adverse Effects to People and Structures Due to Seismic Activity. The Final EIR determined that significant ground shaking would have the potential to put significant strain on the Approved Project components.	Class II (Less than Significant after Mitigation)	APM GEO-Southern California Edison (SCE)-1 APM GEO-SCE-2 MM GEO-1a MM GEO-1b
Impact GEO-2: Soil Erosion. The Final EIR determined that construction of the Approved Project subtransmission line poles requires some grading that would promote short-term increases in erosion.	Class II (Less than Significant after Mitigation)	APM GEO-SCE-3 MM GEO-2a
Impact GEO-3: Soil Stability. The Final EIR determined that portions of the subtransmission line would traverse areas delineated as moderate to high liquefaction hazard zones.	Class II (Less than Significant after Mitigation)	APM GEO-SCE-1 APM GEO-SCE-2 APM GEO-SCE-3 MM GEO-3a
Impact GEO-4: Expansive Soils. The Final EIR determined that no adverse soil impacts are anticipated within the proposed subtransmission line route.	Class II (Less than Significant after Mitigation)	APM GEO-SCE-2 MM GEO-SCE-3a
Impact GEO-5: Wastewater Disposal. The Final EIR determined that wastewater generated on site would be minimal and portable toilets would be utilized during construction.	Class III (Less than Significant)	APM GEO-SCE-3
Impact GEO-6: Availability of a Known Valuable Mineral Resource. The Final EIR determined that the Approved Project does not pass through areas of significantly valuable mineral resources that are not already being mined.	Class III (Less than Significant)	None
Impact GEO-7: Mineral Resource Recovery Sites. The Final EIR determined that subtransmission line poles would be constructed amid the active mining operations and would not disrupt extraction of the clay deposits.	Class III (Less than Significant)	None

Source: California Public Utilities Commission (CPUC), 2010

3.5.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects associated with geology, soils, and mineral resources from the Proposed Modifications.

3.5.2.1 Methodology

All of the Proposed Modifications are located within the original study area boundary, depicted in Figure D.6-1: Major Geomorphic Features in the Study Area of the Final EIR. Potential impacts from the Proposed Modifications were determined based on an assessment of whether the modifications would be located near active faults that would expose people or structures to adverse effects, would result in ground disturbance on steep slopes that would lead to soil erosion or topsoil loss, would be located on an unstable soil or geologic unit or expansive soil, would result in extensive wastewater disposal, would result in ground disturbance in areas known to contain mineral or geothermal resources, or would result in ground disturbance within mineral resource recovery sites. The methodology used for this analysis is consistent with the methodology used for the Final EIR. *Table 3.5-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Geology, Soils, and Mineral Resources* summarizes the significant level of impacts associated with the Proposed Modifications and provides a comparison to applicable impacts from the Final EIR.

Table 3.5-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Geology, Soils, and Mineral Resources

Proposed Modifications	Impact GEO							Discussion
	-1	-2	-3	-4	-5	-6	-7	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications								
Segment Realignment	✓	✓	✓	✓	NA	✓	✓	Segment realignment associated with the Proposed Modifications has the potential to affect Impact GEO-1, -2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	✓	✓	✓	NA	✓	✓	The conversion of the subtransmission line to underground associated with the Proposed has the potential to affect Impact GEO-1, -2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Pole Span Length/Pole Height/ Number	NA	✓	✓	✓	NA	✓	✓	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact GEO-2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact GEO							Discussion
	-1	-2	-3	-4	-5	-6	-7	
Additional Pole Types	NA	NA	NA	NA	NA	NA	NA	The use of additional pole types for the Proposed Modifications would not result in changes to geology, soils, and mineral resources impacts as compared to the Final EIR. Hybrid poles would replace tubular steel poles or light-weight steel poles (LWSPs) in four locations along the existing alignment. The hybrid poles would be installed using similar construction methods as would be used to install the approved poles. Guy poles would be installed across from the approved LWSP poles. Potential impacts from guy poles installed in new, non-approved locations are addressed in the analysis associated with segment realignment in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.
Modified Conductor Configuration	NA	NA	NA	NA	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to geology, soils, and mineral resources impacts as compared to the Final EIR. The modified conductor configuration would occur along the same poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using the same construction methods described in the Final EIR.
Access Road Design Changes	NA	✓	✓	✓	NA	✓	✓	Access road design changes associated with the Proposed Modifications has the potential to affect Impact GEO-2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications								
Staging Areas	NA	✓	✓	✓	NA	✓	✓	The use of new staging areas for the Proposed Modifications has the potential to affect Impact GEO-2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact GEO							Discussion
	-1	-2	-3	-4	-5	-6	-7	
Stringing Setup Areas	NA	✓	✓	✓	NA	✓	✓	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact GEO-2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	NA	✓	✓	✓	NA	✓	✓	The use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact GEO-2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Guard Structure Installation	NA	✓	✓	✓	NA	✓	✓	Guard structure installation associated with the Proposed Modifications has the potential to affect Impact GEO-2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Shoofly Installation	NA	✓	✓	✓	NA	✓	✓	The use of a shoofly for the Proposed Modifications has the potential to affect Impact GEO-2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact GEO							Discussion
	-1	-2	-3	-4	-5	-6	-7	
Blasting/ Fracturing	NA	NA	NA	NA	NA	NA	NA	The use of blasting/fracturing for the Proposed Modifications would not result in changes to geology, soils, and mineral resources impacts as compared to the Final EIR. Blasting/fracturing would be located along the approved subtransmission line alignment or along the proposed segment realignment. Blasting/fracturing along the approved alignment would not result in additional areas of disturbance beyond those analyzed in the Final EIR. Where blasting/fracturing would occur along the proposed realignments, impacts related to this modification are addressed in the analysis associated with segment realignment in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.
Helicopter Use	NA	✓	NA	NA	NA	NA	NA	The use of helicopters for the Proposed Modifications has the potential to affect Impact GEO-2 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Telecommunications System Modifications								
Underground Installation	✓	✓	✓	✓	NA	✓	✓	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact GEO-1, -2, -3, -4, -6, and -7 as compared to the Final EIR, as analyzed in *Section 3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Overhead Installation	NA	NA	NA	NA	NA	NA	NA	Overhead installation of the telecommunications system associated with the Proposed Modifications would not result in changes to the geology, soil, and mineral resources impacts as compared to the Final EIR. The installation of overhead conductor would occur on the same poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using similar construction methods as those described in the Final EIR.

Note: NA = Not Applicable

3.5.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts identified in the Final EIR and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an already identified impact associated with the Approved Project. *Section 3.5.2.1 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. The modified conductor configuration and overhead telecommunications system installation do not affect geology, soils, or mineral resources and are not described further, as described in *Table 3.5-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Geology, Soils, and Mineral Resources*. In addition, because the impacts associated with the additional pole types and blasting/fracturing would be identical to those identified for the segment realignment and modified span length/pole height/number of poles along the Valley-Ivyglen 115 kV Subtransmission Line, the analysis of geology, soils, and mineral resources impacts covers the following Proposed Modifications: segment realignment, conversion to underground, modified span length/pole height/number of poles, access road design changes, staging areas, stringing setup areas, helicopter operation yards, guard structure installation, shoofly installation, and underground telecommunications system installation.

Impact GEO-1: Adverse Effects to People and Structures Due to Seismic Activity

The Final EIR indicated that all of the Approved Project components would be located in a region of several active and potentially active earthquake faults. In the event of an earthquake during construction, there could be significant adverse effects to people and structures. SCE would implement APM GEO-SCE-1, APM GEO-SCE-2, and MM GEO-1a. APMs GEO-SCE-1 and GEO-SCE-2 require seismic design specifications for the improvements and construction of substations based on the Institute of Electrical and Electronics Engineers 693 Recommended Practices for Seismic Design, as well as a geotechnical study to identify site-specific geologic conditions, including recommendations for final project design. MMs GEO-1a and GEO-1b require adherence to SCE's worker safety guidelines and policies in the event of an earthquake during construction and participation by all construction personnel in a worker awareness program that highlights seismic activity as a potential hazard during on-site construction activity, and design-level geotechnical investigations, including site-specific seismic analyses to evaluate the peak ground acceleration for design of Approved Project components. Implementation of APM GEO-SCE-1, APM GEO-SCE-2, and MM GEO-1a would reduce impacts to people and structures due to seismic activity during construction to a less-than-significant level (Class II).

None of the Proposed Modifications would be within an Alquist-Priolo Earthquake Fault Zone, nor would any Alquist-Priolo faults be crossed by the Proposed Modifications. The Final EIR indicated that the Elsinore Fault is the only major fault along the subtransmission line route and is capable of generating an estimated 6.8-magnitude earthquake. According to fault data from Riverside County, the proposed segment realignments would cross two unnamed faults within the Elsinore Fault Zone and the termination of Segment 8 at Ivyglen Substation is within 200 feet

of the Alquist-Priolo Elsinore Fault Zone. Upon further evaluation, the Approved Project subtransmission alignment also crosses these two unnamed faults; therefore, the Proposed Modifications would not cross any additional faults or be located closer to the Alquist-Priolo Elsinore Fault Zone than the Approved Project.

As described in the Final EIR, there are numerous other active faults in the region. The Proposed Modifications would be engineered to withstand strong ground movement and moderate ground deformation, in accordance with CPUC General Order (GO) 95 and GO 128. The Proposed Modifications would be located in seismically active Southern California, where the potential for strong ground-shaking exists. Strong earthquakes, particularly near active faults, can result in liquefaction and collapse of soils if the right conditions are present. The Proposed Modifications would be located within liquefaction hazard zones ranging from low to very high, with the very high designations occurring primarily along Segment 3 and a small portion of Segment 4 near Lake Elsinore. While liquefaction occurrence is rare, if shallow groundwater is present during a strong earthquake, the soils in these locations have the potential to liquefy and collapse. Potential damage from liquefying soils would have a greater impact on buildings or habitable structures than subtransmission line facilities, since subtransmission line poles have a much deeper foundation and the conductor can assist in supporting a pole during localized soil movement. Further, as described in MM GEO-1b and APM GEO-SCE-2, SCE would have a geotechnical study performed to provide geological conditions along the subtransmission line route to assist with the final design. This would allow site-specific soil conditions—such as water table depth, evidence of faulting, liquefaction potential, physical properties of subsurface soils, soil resistivity, and slope stability—to be taken into consideration prior to construction. The potential for seismic-induced landslides within the areas of the Proposed Modifications would be low, considering the flat to gentle sloping terrain, and would have a less-than-significant impact. Therefore, with the implementation of MM GEO-1a, MM GEO-1b, APM GEO-SCE-1, and APM GEO-SCE-2, the Proposed Modifications would not change the Class II (Less-than-Significant after Mitigation) findings from the Final EIR. Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact GEO-1 as compared to the Final EIR.

Impact GEO-2: Soil Erosion

The Final EIR indicated that the Approved Project subtransmission alignment and telecommunications system would traverse maximum slopes of approximately four to eight percent. Short-term increases in soil erosion could occur during construction of the Approved Project due to grading, vegetation loss, and ground disturbance. However, impacts to soil erosion would be minimized with the implementation of best management practices (BMPs), Storm Water Pollution Prevention Plan- (SWPPP-) related requirements outlined in APM GEO-SCE-3 and MM GEO-2a. Therefore, the Final EIR concluded that impacts due to soil erosion would be less than significant after mitigation, and thus a Class II impact.

The Proposed Modifications would primarily be located in areas where slopes are less than 15 percent along Segments 1 through 5 and Segment 8. However, Segment 6 would traverse slopes that are greater than 15 percent between Hostettler Road and Horsethief Canyon Road as the alignment travels just south of Interstate (I-) 15. Grading and trenching activities associated with the Proposed Modifications would expose soil to erosion by removing the vegetative cover and

compromising the soil structure. Rain and wind may potentially further detach soil particles and transport them off site. The use of helicopters may result in additional wind erosion during takeoff, hovering at low altitude, and landing. The Proposed Modifications would be located in areas with slight to severe erosion potential. The erosion potential would be considered when developing BMPs included in the SWPPP. In accordance with APM GEO-SCE-3 and MM GEO-2a, a project-specific SWPPP would be prepared that identifies BMPs to be implemented during construction. *Section 3.6 Hydrology and Water Quality* provides additional detail regarding the SWPPP. SCE would obtain coverage under the State Water Resource Control Board's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ), which requires a risk assessment based on the soil type, slope, and other on-site characteristics. This information would be used to develop the SWPPP and appropriate BMPs to ensure that erosion and sedimentation would be controlled during construction. In addition, soil exposure to erosion would be temporary and stabilized following the completion of construction. Therefore, the Proposed Modifications would result in less-than-significant impacts and would be consistent with the Class II (Less-than-Significant after Mitigation) findings of the Final EIR. Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact GEO-2 as compared to the Final EIR.

Impact GEO-3: Soil Stability

The Final EIR indicated that soil instability due to subsidence, liquefaction, or landslides could occur during construction as segments of the Approved Project would be located within areas delineated as moderate to high liquefaction hazard zones. However, the Approved Project would result in less-than-significant impacts related to subsidence, liquefaction, and landslides during construction with implementation of MM GEO-3a and APM GEO-SCE-2 (Class II). MM GEO-3a requires design-level geologic investigations to assess the potential for geologic hazards and provide engineering design and construction measures where hazards are found to exist, such as ground improvements of liquefiable zones, incorporation of slack in underground portions of the telecommunications system, positioning of Approved Project structures away from steep hillsides and steep drainages, and excavation of potentially expansive soils during construction and replacement with engineered backfill. APM GEO-SCE-2 requires a geotechnical study to identify site-specific geologic conditions to support final engineering and recommendations to be incorporated into the final design.

Landslides typically occur on moderate to steep slopes where soils become saturated to the point where they cannot hold their own weight and begin to slough downward. The Proposed Modifications would be located primarily on flat to gentle terrain with some areas along Segments 6 and 7 occurring on slopes greater than 15 percent. The steeper slopes are present along the proposed access road modifications; however, the soils in this area are primarily well drained and likely not susceptible to catastrophic slope movement. As described in the Final EIR, SCE would implement MM GEO-3a and APM GEO-SCE-2, and perform design-level geotechnical investigations to assess the potential for slope instability. Where hazards are found to exist, appropriate engineering design and construction measures would be incorporated in the final design. As a result, impacts related to unstable geological units would be less than significant and consistent with the Class II (Less-than-Significant after Mitigation) findings in the Final EIR.

As previously discussed, the Proposed Modifications would cross soils that exhibit at least some of the characteristics that are required for soils to experience liquefaction. Liquefaction is a rare phenomenon, but if shallow groundwater and relatively loose, sandy soils are present, liquefaction and collapse could occur during a seismic event. The potential damage from liquefying soils would have a greater impact on buildings or habitable structures than subtransmission line facilities, since subtransmission line poles have a much deeper foundation and the conductor can assist in supporting a pole during localized soil movement. Further, as described in MM GEO-3a and APM GEO-SCE-2, appropriate engineering design and construction measures would be incorporated in the final design. This process would also preclude the potential for lateral spreading or subsidence to pose a threat to Proposed Modifications. Therefore, impacts would be less than significant and consistent with the Final EIR's assessment of Class II (Less-than-Significant after Mitigation). Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact GEO-3 as compared to the Final EIR.

Impact GEO-4: Expansive Soils

The Final EIR indicated that geotechnical studies would be conducted prior to construction of the Approved Project, as outlined in APM GEO-SCE-2, which would evaluate the presence and extent of expansive or collapsible soil. Standard practices, including excavation of expansive soils during construction and replacement with engineered backfill, would be used to mitigate expansive soil conditions. As a result, no adverse soil impacts would be anticipated within the Approved Project subtransmission alignment and would not be significant (Class III).

The proposed subtransmission line realignments would cross soils with low to high shrink/swell potential. Potential damage from expansive soils would have a greater impact on buildings or habitable structures than subtransmission line facilities, since subtransmission line poles have a much deeper foundation and the conductor can assist in supporting a pole during localized soil movement. The soils in the Proposed Modification areas are not anticipated to have enough shrink/swell potential to result in large expansions. Further, the design-level geologic investigations and geotechnical study required by MM GEO-3a and APM GEO-SCE-2, respectively, would assess the potential for expansive soil conditions, and appropriate engineering design and construction measures would be incorporated into the final Proposed Modifications design. Therefore, impacts would be less than significant and consistent with the Final EIR's assessment of Class II (Less-than-Significant after Mitigation). Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact GEO-4 as compared to the Final EIR.

Impact GEO-5: Wastewater Disposal

The Final EIR indicated that construction and operation of the Approved Project would not require septic tanks or alternative wastewater disposal systems. Wastewater generated on site would be minimal and portable toilets would be utilized during construction. No restroom or other facilities that generate wastewater would be utilized during the operation of the Approved Project. Construction of the Approved Project would comply with the SWPPP identified in APM GEO-SCE-03 to ensure any stormwater runoff does not compromise water quality or increase erosion in the Approved Project area. Implementation of APM GEO-SCE-3 would reduce any potential impacts to a less-than-significant level (Class III).

The Proposed Modifications would not involve the installation of a septic tank or alternative wastewater disposal system. Therefore, no new impacts would occur, and the Proposed Modifications would be consistent with the Class III (Less-than-Significant) findings in the Final EIR. Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact GEO-5 as compared to the Final EIR.

Impact GEO-6: Availability of a Known Valuable Mineral Resource

The Final EIR indicated that the Approved Project area is near to and encompasses areas with economically viable deposits of clay, sand, gravel, and stone products, including decomposed granite. Most of the Approved Project area is classified as Mineral Resource Zone (MRZ-) 3, and areas along the I-15 corridor north of Lake Elsinore are classified MRZ-2. Portions of the proposed subtransmission line pass through an area designated MRZ-2. In addition, geothermal resources along the Approved Project subtransmission alignment have not been developed for power production, although the Riverside County General Plan identified some potential for development of geothermal resources. Because the Approved Project's footprint would be relatively small and would not pass through areas of significantly valuable mineral resources that are not already being mined, any impacts on the availability of mineral resources during construction and operation would be less than significant (Class III).

The majority of the Proposed Modifications are located in an area classified as MRZ-3, which is an area where mineral deposits exist, or are likely to exist, according to available geologic information. A small portion of the Proposed Modifications along the I-15 corridor north of Lake Elsinore is located in an area classified as MRZ-2, which indicates that there is a high likelihood of significant mineral deposits, or that significant mineral deposits exist, according to available geologic information. No mineral deposit extraction or removal is anticipated as part of the Proposed Modifications, and the MRZ designation of the Proposed Modifications area is not anticipated to change as a result of construction. In addition, the Proposed Modifications are primarily located within existing SCE utility rights-of-way (ROWs) or along existing roadways where mineral resources are not expected to occur.

There are eight active mining operations located within two miles of the Approved Project. The Proposed Modifications are not located in and do not span any active mines. The nearest active mine—operated by Pacific Clay Products—is located adjacent to the Segment 5 realignment. Mines located in the vicinity of the Proposed Modifications would continue to be operational during construction and no construction activities would occur within these mines. As a result, there would be no impact to known mineral resources of value to the region and the residents of the state, and Impact GEO-6 would still be considered Class III (Less than Significant). Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact GEO-6 as compared to the Final EIR.

Impact GEO-7: Mineral Resource Recovery Sites

The Final EIR indicated that the Approved Project subtransmission alignment would be located near Pacific Clay Products, an active clay mining operation owned by Pacific Aggregates, on the western side of I-15 at Nichols Road in the City of Lake Elsinore. Decomposed granite has also been mined in the Lake Elsinore area. Construction of the Approved Project would not disrupt

extraction of the clay deposits. Therefore, no impacts to mineral resource recovery sites would occur during construction and operation (Class III).

The general plans prepared for Riverside County, the City of Perris, and the City of Lake Elsinore do not designate areas outside those already designated by the State of California State Mining and Geology Board as having important mineral resources. The City of Menifee has not yet adopted its general plan and would continue to use the Riverside County General Plan in the interim. As previously discussed, the majority of the Proposed Modifications are located within an area classified as MRZ-3 and a small portion of the Proposed Modifications along the I-15 corridor north of Lake Elsinore are located within an area classified as MRZ-2. No mineral deposit extraction or removal is anticipated as part of the Approved Project and the MRZ designation in the area of the Proposed Modifications is not anticipated to change as a result of construction. The Proposed Modifications would not be located in and would not span any active mines. Therefore, the mines located within the vicinity of the Proposed Modifications would continue to be operational during construction and no construction activities would occur within the plant. In addition, the Proposed Modifications would be primarily located within existing SCE utility ROWs or along existing roadways, where mineral resources are not expected to occur. As a result, there would be no impact to a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan due to construction or operation. Therefore, the Proposed Modifications would have no impact on mineral resource recovery sites, which is consistent with the Final EIR's assessment of Class III (Less than Significant). Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact GEO-7 as compared to the Final EIR.

3.5.2.1 Additional Evaluation

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.5.3 Summary

As indicated in *Table 3.5-3: Significance of Impact Changes – Geology, Soils, and Mineral Resources*, Proposed Modifications would not significantly increase the severity of effects nor change the determinations of significance associated with geology, soils, and mineral resources identified in the Final EIR. Therefore, impact significance levels identified in the Final EIR would not increase in severity as a result of the Proposed Modifications.

Table 3.5-3: Significance of Impact Changes – Geology, Soils, and Mineral Resources

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Project Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs
Impact GEO-1: Adverse Effects to People and Structures due to Seismic Activity	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM GEO-SCE-1 APM GEO-SCE-2 MM GEO-1a MM GEO-1b	APM GEO-SCE-1 APM GEO-SCE-2 MM GEO-1a MM GEO-1b
Impact GEO-2: Soil Erosion	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM GEO-SCE-3 MM GEO-2a	APM GEO-SCE-3 MM GEO-2a
Impact GEO-3: Soil Stability	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM GEO-SCE-1 APM GEO-SCE-2 APM GEO-SCE-3 MM GEO-3a	APM GEO-SCE-1 APM GEO-SCE-2 APM GEO-SCE-3 MM GEO-3a
Impact GEO-4: Expansive Soils	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM GEO-SCE-2 MM GEO-SCE-3a	APM GEO-SCE-2 MM GEO-SCE-3a
Impact GEO-5: Wastewater Disposal	Class III (Less than Significant)	Class III (Less than Significant)	APM GEO-SCE-3	APM GEO-SCE-3
Impact GEO-6: Availability of a Known Valuable Mineral Resource	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact GEO-7: Mineral Resource Recovery Sites	Class III (Less than Significant)	Class III (Less than Significant)	None	None

Source: CPUC, 2010

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3.6 HYDROLOGY AND WATER QUALITY

This section summarizes the impacts to hydrology and water quality identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to hydrology and water quality, and analyzes the potential effects of the Proposed Modifications on hydrology and water quality. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

3.6.1 Summary of Final EIR

The Final EIR determined that impacts to hydrology and water quality would be less than significant after mitigation. *Table 3.6-1: Summary of Final EIR – Hydrology and Water Quality* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for hydrology and water quality associated with the Approved Project.

Table 3.6-1: Summary of Final EIR – Hydrology and Water Quality

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact HYD-1: Water Quality Standards and Waste Discharge Requirements. The Final EIR determined that the Approved Project would have the potential to cause water quality impacts as a result of vegetation removal, grading, and excavation. Construction of the Approved Project would not violate water quality standards or discharge requirements.	Class II (Less than Significant after Mitigation)	APM HYDRO-Southern California Edison (SCE)-1 APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4 MM HYD-1a
Impact HYD-2: Groundwater Supplies and Recharge. The Final EIR determined that the Approved Project would include the creation of new impervious surfaces that have the potential to influence groundwater absorption rates and deplete groundwater supplies. The Approved Project would not increase Impacts to groundwater supplies and recharge would be reduced to less-than-significant levels.	Class III (Less than Significant)	None
Impact HYD-3: Drainage Patterns, Erosion, and Siltation. The Final EIR determined that there is potential for the Approved Project to increase sediment in runoff from ground-disturbing activities, resulting in increased turbidity and sedimentation of nearby waterways. The Approved Project modification would not increase the significance of impacts to drainage patterns, erosion, and siltation.	Class III (Less than Significant)	APM HYDRO-SCE-1 APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4
Impact HYD-4: Drainage Patterns and Flooding. The Final EIR determined that there is potential for the Approved Project to increase sediment in runoff from ground-disturbing activities, which could reduce the flood-carrying capacity of downstream channels. Proposed Modifications would not increase surface runoff or impacts to drainage patterns and flooding.	Class III (Less than Significant)	APM HYDRO-SCE-1 APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4
Impact HYD-5: Runoff Water and Storm Water Drainage Systems. The Final EIR determined that the Approved Project would require minimal water and, therefore, generate little waste discharge to exceed the capacity of existing or planned storm water drainage systems. Proposed Modifications would not increase impacts associated with storm water capacity and polluted runoff.	Class II (Less than Significant after Mitigation)	MM HYD-5a MM HYD-5b APM HYDRO-SCE-1 APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4 MM HYD-5a MM HYD-5b

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact HYD-6: Water Quality. Surface water quality could be diminished as a result of ground-disturbing activities and vegetation removal. The Final EIR determined that permit requirements would ensure water quality is maintained at acceptable levels as the Approved Project would need to comply with all of the Santa Ana Regional Water Quality Control Board (RWQCB) water quality standards and/or drainage discharge requirements.	Class III (Less than Significant)	None
Impact HYD-7: Flood Hazard Zones. The Final EIR determined that portions of the underground alignments and the base of some poles are located within the 100-year Federal Emergency Management Agency (FEMA) designated flood hazard zones. The Approved Project components have been designed to withstand periods of flooding or inundation.	Class II (Less than Significant after Mitigation)	MM HYD-7a MM HYD-7b
Impact HYD-8: Structures that Impede or Redirect Flood Flows. The Final EIR determined that poles associated with the Approved Project would be exposed to flood conditions, but would not redirect flows to increase local flooding.	Class II (Less than Significant after Mitigation)	MM HYD-7a MM HYD-7b
Impact HYD-9: Flooding as a Result of Failure of a Levee or Dam. The Final EIR determined that the Approved Project has been designed to account for potential flooding impacts such as periods of inundation as a result of a failure of a levee or dam.	Class II (Less than Significant after Mitigation)	MM HYD-7a MM HYD-7b
Impact HYD-10: Inundation by Seiche, Tsunami, or Mudflow. The Final EIR determined that the Approved Project is not subject to inundation by seiche or tsunami. The Approved Project would be located on relatively flat terrain, far from steep slopes in regions most susceptible to mudflows.	Class III (Less than Significant)	None

Source: California Public Utilities Commission (CPUC), 2010

3.6.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on hydrology and water quality from the Proposed Modifications.

3.6.2.1 Methodology

Potential impacts to water quality, groundwater supplies and recharge, drainage patterns, erosion, siltation, and runoff water associated with the Proposed Modifications, were determined based primarily on activities that involve additional ground disturbance, such as excavation and grading, and the creation of new impermeable structures. Impacts associated with flooding were determined primarily based on additional poles and pole types. The methodology used for this analysis is consistent with the methodology use for the Final EIR. *Table 3.6-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Hydrology and Water Quality* summarizes the significance level of impacts associated with the Proposed Modifications and provides a comparison to applicable impacts from the Final EIR.

Table 3.6-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Hydrology and Water Quality

Proposed Modifications	Impact HYD										Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications											
Segment Realignment	✓	NA	✓	✓	✓	✓	✓	✓	✓	NA	Segment realignment associated with the Proposed Modifications has the potential to affect Impact HYD-1, -3, -4, -5, -6, -7, -8, and -9 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	NA	✓	✓	✓	✓	NA	NA	NA	NA	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact HYD-1, -3, -4, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Pole Span Length/Pole Height/ Number	✓	✓	✓	✓	✓	✓	✓	✓	✓	NA	Modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact HYD-1, -2, -3, -4, -5, -6, -7, -8, and -9 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Additional Pole Types	✓	NA	✓	✓	✓	✓	✓	✓	✓	NA	The use of additional pole types for the Proposed Modifications has the potential to affect Impact HYD-1, -3, -4, -5, -6, -7, -8, and -9 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact HYD										Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	
Modified Conductor Configuration	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to hydrology and water quality impacts as compared to the Final EIR. Modifications to the conductor configuration would not involve work on the ground.
Access Road Design Changes	✓	NA	✓	✓	✓	✓	NA	NA	NA	NA	Access road design changes associated with the Proposed Modifications has the potential to affect Impact HYD-1, -3, -4, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications											
Staging Areas	✓	NA	✓	✓	✓	✓	NA	NA	NA	NA	The use of new staging areas for the Proposed Modifications has the potential to affect Impact HYD-1, -3, -4, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
String Setup Areas	✓	NA	✓	✓	✓	✓	NA	NA	NA	NA	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact HYD-1, -3, -4, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	✓	NA	✓	✓	✓	✓	NA	NA	NA	NA	The use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact HYD-1, -3, -4, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact HYD										Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	
Guard Structure Installation	✓	NA	✓	✓	✓	✓	✓	✓	✓	NA	The use of guard structures for the Proposed Modifications has the potential to affect Impact HYD-1, -3, -4, -5, -6, -7, -8, and -9 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Shoofly Installation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	The use of a shoofly for the Proposed Modifications would not result in changes to hydrology and water quality impacts as compared to the Final EIR. Impacts associated with shoofly installation would be small in scale and would occur primarily in previously disturbed areas.
Blasting/ Fracturing	✓	NA	✓	NA	✓	✓	NA	NA	NA	NA	The use of blasting/fracturing for the Proposed Modifications has the potential to affect Impact HYD-1, -3, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Use	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	The use of helicopters for the Proposed Modifications would not result in changes to hydrology and water quality impacts as compared to the Final EIR. Due to the nature of helicopter activities, work would not take place on the ground.
Telecommunications System Modifications											
Underground Installation	✓	NA	✓	✓	✓	✓	NA	NA	NA	NA	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact HYD-1, -3, -4, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact HYD										Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	
Overhead Installation	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Overhead installation of the telecommunications system would not result in changes to hydrology and water quality impacts as compared to the Final EIR. The new conductor type planned for the overhead installation of the telecommunications system would not involve work on the ground.

Note: NA = Not Applicable

3.6.2.2 Effects of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to hydrology and water quality identified in the Final EIR, and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.6.2.3 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modification. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. The modified conductor configuration, shoofly installation, and helicopter use modifications do not affect hydrology and water quality and are nor described further, as described in *Table 3.6-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Hydrology and Water Quality*.

Impact HYD-1: Water Quality Standards and Waste Discharge Requirements

The Final EIR indicated that the construction of the proposed subtransmission line and telecommunications system would have the potential to cause water quality impacts as a result of vegetation removal, grading, and excavation. The ground disturbance and potential erosion caused by storm water runoff could compromise water quality and drainage systems in the area. The Final EIR determined that construction of the subtransmission line and telecommunications system would not violate water quality standards or discharge requirements during construction or operation after implementation of HYDRO-SCE-1, 2, 3, and 4, and would have a less-than-significant effect on surface water or groundwater quality (Class II).

Similar to the Approved Project, construction of the overhead portions of the subtransmission line and telecommunications system would result in vegetation removal, grading, and excavation. These activities have the potential to fill or alter existing hydrological features and/or increase the potential for erosion. The realignments associated with the subtransmission line would expose new areas to these construction activities when compared to the Approved Project. In addition, the Proposed Modifications include additional poles that would be used to support the subtransmission line which would result in additional ground disturbance. This portion of the Approved Project, with the Proposed Modifications incorporated, would require the temporary disturbance of approximately 142.52 to 163.90 acres.[1] In addition, a permanent maintenance area, measuring 10 foot radius around light-weight steel poles (LWSPs) and 25 foot radius around tubular steel poles (TSPs), would be established at the base of each new pole. These permanent maintenance areas would total approximately 8.63 to 9.92 acres. *Table 3.6-3: Ground Disturbance from the Approved Project with Proposed Modifications* provides a summary of the ground disturbance associated with the Proposed Modifications.

[1] A comprehensive calculation of total impacts was not included in the Final EIR. As a result, all temporary impacts associated with the Approved Project with the Proposed Modifications have been presented here.

Table 3.6-3: Ground Disturbance from the Approved Project with Proposed Modifications

Component	Approximate Temporary Ground Disturbance (acres)	Approximate Permanent Ground Disturbance (acres)
Valley-Ivyglen 115 kV Subtransmission Line		
Overhead Components	142.52 to 163.90	8.63 to 9.92
New Permanent Roads and Permanent Widening of Existing Roads	32.53 to 37.41	28.50 to 32.78
Underground Segment 1	15.21	0.50
Underground Segment 8		
Underground Vaults		
Staging Areas	42.92	--
Stringing Setup Areas[2]	61.70	--
Guard Structure Installation	2.17	--
Telecommunications System		
Underground Telecommunications System	2.28	0.40
Total[3]	**299.33 to 323.31**	**38.03 to 43.60**

[2] Stringing setup areas for the telecommunications system are included in the stringing setup areas for the subtransmission line.

[3] Many of the proposed work areas or permanent impact areas are coincident. The total impact numbers provided represent the overall footprint of the project, with the overlapping areas removed.

Approximately 16 miles of new, approximately 12-foot-wide unpaved access roads were included as part of the Final EIR, but were not depicted in the Approved Project design. Since the time that the Final EIR was released, access roads have been generally located and incorporated into the design of the Proposed Modifications. The Proposed Modifications to access roads would encompass approximately 10.3 miles of existing roads to be widened and new access roads. Of the 10.3 miles, approximately 70 percent of the access roads (approximately 7.2 miles) would maintain the drivable width described in the Final EIR. The remaining 30 percent of the proposed access roads (approximately 3.1 miles) would require a wider drivable width to accommodate safe operation of construction and maintenance equipment. It is anticipated that the maximum drivable width would be 22 feet. These new access roads would result in 28.50 to 32.78 acres of permanent impacts and approximately 32.53 to 37.41 acres of temporary impacts to build or modify the roads. This represents an increase over the approximately 29.23 acres of permanent impacts associated with the permanent access roads described in the Final EIR.

Undergrounding portions of Segment 1, Segment 8, and associated vaults would result in approximately 0.50 acre of permanent ground disturbance and approximately 15.21 acres of temporary ground disturbance. Undergrounding portions of the telecommunications system would result in approximately 0.40 acre of permanent ground disturbance and approximately 2.28 acres of temporary ground disturbance. The undergrounding of Segment 1 would occur within an existing transmission ROW along a dirt access road, and Segment 8 would be located within or directly adjacent to Temescal Canyon Road. The underground alignment for the telecommunications system is located entirely within previously disturbed areas and/or existing roadways. Because the majority of excavation and grading associated with undergrounding portions of Segment 1, Segment 8, and portions of the telecommunications system would occur within previously disturbed or paved areas, the significance of impacts to water quality standards and waste discharge requirements resulting from the Proposed Modifications would not increase beyond what was assessed in the Final EIR for the Approved Project.

The addition of the eight proposed and potentially selected staging areas, would require approximately 42.92 acres of temporary ground disturbance. Stringing setup areas would also be increased in size, resulting in additional temporary ground disturbance. The final area of impact associated with stringing setup areas would be determined based on safety requirements. The potential staging areas are generally located in disturbed areas or vacant lots between disturbed and developed areas. Stringing setup areas are typically located in-line with the conductor and work could occur within the roadway or from the road shoulder. Installation and removal of guard structures to protect highways, roadways, and walkways would result in approximately 2.17 acres of temporary disturbance.

Installation of the 10 shoofly poles would require excavation and vegetation removal in areas where poles would be installed. Impacts associated with installation of the shoofly would be similar to installation of guard structures. Impacts associated with the installation of hybrid and guy poles would be similar to the impacts resulting from the installation of LWSPs along the subtransmission line and the installation of guard structures, including vegetation removal and excavation.

In areas where conventional construction equipment cannot complete excavation work due to the presence of large rocks, SCE plans to use blasting or fracturing techniques to facilitate excavation. Blasting may occur during the construction of new access roads, site preparation, and excavation/foundation work activities. Holes would be drilled and the explosive charges would be loaded into the holes. If the blast is near sensitive surface hydrological resources, special protective measures (e.g., gravel or blast mats) would be installed to control rock debris from the blast site. In addition, SCE would ensure that the blasting sites are cleaned up to the extent feasible. Blasting would only occur in areas that require excavation and where subsurface obstructions reasonably preclude excavation using conventional construction equipment. SCE would limit blasting to only those segments deemed necessary during construction.

As described previously, construction of the Valley-Ivyglen 115 kV Subtransmission Line and telecommunications system would involve ground-disturbing activities such as grading, excavation, and blasting. These activities would result in the removal of vegetation from the soil surface, leaving bare soil susceptible to erosion caused by storm water runoff that could compromise water quality and drainage systems in the area. SCE would implement the same APMs included in the Final EIR for the Approved Project.

As described in *Chapter 2 – Proposed Modifications*, APM HYDRO-SCE-1 has been revised to account for the installation of BMPs during blasting activities and to allow for the use of non-straw wattles. The installation of BMPs near blasting sites would be required to minimize the potential for erosion and was added because blasting was not anticipated at the time that the Final EIR was prepared. The use of non-straw wattles would occur in some segments to avoid attracting grazing livestock. These refinements would enhance the ability to control erosion across the project and using non-straw wattles in the vicinity of grazing livestock would extend the effectiveness of these BMPs. As a result, these revisions would not change the severity of the impacts identified in the Final EIR. In addition, APM HYDRO-SCE-1 (revised) requires the development of a project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would designate best management practices (BMPs) to be followed during construction—such as the installation of wattles, water bars, and silt fences—to avoid and minimize impacts to water quality and the potential for waste discharge. APM HYDRO-SCE-1 has been revised to include the installation of BMPs around blasting areas. This revision to APM HYDRO-SCE-1 would not increase the significance of impacts from what was assessed in the Final EIR, as the revision is intended to minimize and avoid potential impacts from blasting. APM HYDRO-SCE-2 requires that personnel receive an environmental training to ensure that the APMs and SWPPP BMPs are understood and implemented correctly. APM HYDRO-SCE-3 requires that the SWPPP include procedures for quick and safe cleanup of accidental spills during construction. APM HYDRO-SCE-4 requires procedures for ensuring that dewatering activities do not introduce sediment to nearby waterways. As a result, with implementation of APM HYDRO-SCE-1 (revised), 2, 3, and 4, impacts would be less than significant and consistent with the Final EIR's assessment of Class II. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-1 as compared to the Final EIR.

Impact HYD-2: Groundwater Supplies and Recharge

The Final EIR indicated that construction of the Approved Project would include the creation of new impervious surfaces that have the potential to influence groundwater absorption rates and deplete groundwater supplies. In addition, any groundwater used during construction could deplete the availability of groundwater, but also increase the amount of surface water and potentially overwhelm the ability of the ground to absorb the water through existing drainage systems. The proposed subtransmission line, telecommunications line, and Valley and Ivyglen substation upgrades would not include any facilities that would use groundwater. As a result, impacts to groundwater supplies and recharge would be less than significant (Class III).

The Final EIR assumed that approximately 660 square feet of new impervious surface from pole foundations would be created. Due to the increased number of TSPs that would be installed as part of the Proposed Modifications, 3,025 to 3,478 square feet of impervious surface would be generated by new pole foundations. The Final EIR did not consider the installation of additional pole types when calculating impervious surfaces. As shown in *Table 3.6-4: Impervious Surface from the Approved Project with Proposed Modifications*, the inclusion of guy poles, hybrid poles, riser poles, wood poles, and LWSPs would bring the total generation of impervious surfaces due to pole installation to between 0.21 and 0.25 acre.

Table 3.6-4: Impervious Surface from the Approved Project with Proposed Modifications

Proposed Modifications Component	Approximate Quantity	Approximate Size	Approximate Area of Impervious Surface (acres)
LWSP	495 to 570 poles	4-foot diameter	0.14 to 0.16
TSP	107 to 123 poles	6-foot-diameter	0.07 to 0.08
Guy Pole	23 to 27 poles	2-foot-diameter	< 0.01
Hybrid Pole	4 poles	6-foot-diameter	< 0.01
Riser	4 poles	2-foot-diameter	< 0.01
Wood	8 to 9 poles	2-foot-diameter	< 0.01
Total	**--**	--	**0.21 to 0.24**

Table 3.6-4: Impervious Surface from the Approved Project with Proposed Modifications provides the total amount of permanent new impervious surfaces that would be created as a result of Proposed Modifications. Installation of the overhead telecommunications system would not result in any additional impervious surface, because the overhead portion would be installed along the subtransmission line poles. Installation of the underground portions of the telecommunications system would not result in any additional impervious surfaces, because the underground portions of the system would be installed in existing conduit or in new conduit within existing roadways. Other Proposed Modifications—such as the conversion of Segment 8 to underground, work area modifications, and guard structure installation—do not include the creation of any additional permanent impervious surface. As a result, impacts would be less than significant and consistent with the Final EIR's assessment of Class III. Therefore, the Proposed

Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-2 as compared to the Final EIR.

Impact HYD-3: Drainage Patterns, Erosion, and Siltation

The Final EIR indicated that drainage and runoff would not be significantly affected by construction of the proposed subtransmission line, telecommunications system and substation upgrades. The Approved Project SWPPP would include BMPs, such as covering spoils piles, using erosion control equipment such as wattles and silt fencing, and recontouring and revegetating areas after construction to prevent sediment runoff to any nearby drainages. APM-HYDRO-SCE-1 (revised), 2, 3, and 4 would further reduce potential impacts from erosion to a less-than-significant level (Class II).

There is potential for the Proposed Modifications to increase sediment in runoff from pole work areas and access roads. If sediment-laden runoff from the construction sites entered the nearby waterways, it could potentially increase turbidity and sedimentation of downstream watercourses. The Final EIR included approximately 620 LWSPs and 45 TSPs, which would be an average of 200 feet apart. TSP footings in the Final EIR were approximately six feet in diameter and at least 22 feet deep. The Proposed Modifications include the installation of approximately 495 to 570 LWSPs, 107 to 123 TSPs, four hybrid poles, 8 to 9 wood poles, four riser poles, and 23 to 27 guy poles. TSP and hybrid footings would be approximately six feet in diameter. LWSPs would be approximately four feet in diameter. Guy poles would be installed adjacent to other poles along the line for stability, and would be approximately two feet in diameter. Wood and riser poles would also be approximately two feet in diameter. In addition, approximately 95 guard structures would be installed along Segments 1 through 7. Guard structures are generally installed on either side of highways, streets, railroads, pedestrian and bike trails, or other overhead utilities. Each guard structure would require an approximately two-foot-diameter temporary excavation for each leg. Guard structures are generally installed along roadways, impacts would occur mostly in previously developed or disturbed areas.

The Proposed Modifications include the undergrounding and realignment of Segment 8, and the undergrounding of a portion of the telecommunications system. The approximately 1.9-mile-long Segment 8 would be installed underground and portions of the telecommunications system along Segments 1 through 5, 7, and 8 would be installed underground in lengths between 120 feet and 4,170 feet, with a total length of approximately 9,996 feet in new facilities. Undergrounding Segment 8 and the telecommunications system would require additional grading and excavation than was proposed for the overhead lines in the Final EIR. The underground alignment for Segment 8 is located within or directly adjacent to Temescal Canyon Road, and the underground alignment for the telecommunications system along Segments 1 through 4, 7, and 8 would also be installed within existing roadways. Therefore, the majority of excavation and grading would occur within previously disturbed or paved areas.

As described previously, approximately 16 miles of new, approximately12-foot-wide unpaved access roads were included as part of the Final EIR, but were not depicted in the Approved Project design. Since the time that the Final EIR was released, access roads have been generally located and incorporated into the design. Access roads design changes include approximately 12- to 22-foot-wide roads that would result in approximately 28.50 to 32.78 acres of permanent

impacts and 32.53 to 37.41 acres of temporary impacts due to drive and crush, mowing, and grade blading. Proposed Modifications include eight proposed and potential staging areas that would require 42.92 acres of ground disturbance. Stringing setup areas would be increased as well, and the final impact of stringing setup areas would be based on safety requirements.

In order to avoid and minimize impacts to drainage patterns, erosion, and siltation, SCE would implement the APMs that were included in the Final EIR. Revised APM HYDRO-SCE-1 requires the development of a project-specific SWPPP, which would include BMPs, such as covering spoils piles, using erosion control equipment such as wattle and silt fencing, and revegetating temporarily impacted areas after construction. APM HYDRO-SCE-2 requires that personnel receive an environmental training to ensure that APMs and SWPPP BMPs are understood and implemented. APM HYDRO-SCE-3 requires that the SWPPP include procedures for quick and safe cleanup of accidental spills during construction. With the implementation of the SWPPP and APMs included in the Final EIR, the Proposed Modifications would not increase the significance of impacts to drainage patterns, erosion, and siltation beyond those described for the Approved Project in the Final EIR. As a result, impacts would be less than significant and consistent with the Final EIR's assessment of Class II. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-3 as compared to the Final EIR.

Impact HYD-4: Drainage Patterns and Flooding

The Final EIR indicated that construction of the proposed subtransmission line and telecommunications system would not alter the existing drainage pattern of the area. With the implementation of APM HYDRO-SCE-1, 2, 3, and 4, any increase in the rate or amount of surface runoff in a manner that would result in flooding on site or off site would be less than significant (Class III).

As described previously, Proposed Modifications would result in additional surface disturbance. There is potential for increased surface runoff due to construction activities. If sediment-laden runoff from the construction sites entered the nearby waterways, it could potentially increase turbidity, increase sedimentation, and reduce the flood-carrying capacity of downstream channels. Construction activities conducted when the ground is wet also create the potential for increased runoff due to a reduction in infiltration and evaporation through vegetation removal. The total surface disturbance associated with the subtransmission line and telecommunication line includes approximately 306.83 to 333.09 acres of temporary impact and approximately 38.03 to 43.60 acres of permanent impact. To avoid and minimize these potential impacts, SCE would implement the same APMs that were included in the Final EIR. Revised APM HYDRO-SCE-1 requires the development of a SWPPP, which would require BMPs that would reduce the potential for the Proposed Modifications to alter drainage patterns. APM HYDRO-SCE-2 requires that personnel receive and environmental training to ensure that APMs and BMPs are implemented properly. With the implementation of APMs HYDRO-SCE-1 (revised) and 2, Proposed Modifications would not increase surface runoff due to construction activities beyond the amount described for the Approved Project in the Final EIR. As a result, impacts would be less than significant and consistent with the Final EIR's assessment of Class III. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-4 as compared to the Final EIR.

Impact HYD-5: Runoff Water and Storm Water Drainage Systems

The Final EIR indicated that road construction could potentially accelerate soil erosion rates and sedimentation in downstream waterways of major drainages, such as the San Jacinto River and Temescal Wash, that are crossed by the proposed subtransmission line and telecommunications system. Therefore, impacts associated with storm water capacity and polluted runoff would be reduced to less-than-significant levels (Class II) with the adoption of APMs HYDRO-SCE-1 (revised), -2, -3, and -4 and MMs HYD-5a and HYD-5b.

Proposed Modifications would result in additional areas of ground disturbance due to additional poles and staging areas. This additional area of ground disturbance would require water for dust control activities. The construction techniques associated with the Proposed Modifications are similar to those assessed in the Final EIR. Therefore; the amount of additional water necessary to perform dust control activities due to Proposed Modifications is not anticipated to increase the significance of impact relating to runoff water and storm water drainage systems. Therefore, the Proposed Modifications would generate little waste discharge to exceed the capacity of existing or planned storm water drainage systems. The total amount of ground disturbance associated with Proposed Modifications is provided in *Table 3.6-3: Ground Disturbance from the Approved Project with Proposed Modifications*.

Runoff water from areas of ground disturbance associated with the Proposed Modifications, such as installation of poles and construction of access roads, would be managed through the provisions of the SWPPP. Runoff could eventually flow to the San Jacinto River and Temescal Wash, which flow to Lake Elsinore. However, runoff water would likely percolate into the alluvial soils before reaching drainages or surface water. The potential for water quality impacts to the San Jacinto River and Temescal Wash are low, but would be further reduced or avoided through implementation of APM HYDRO-SCE-1 (revised) requires the development of a SWPPP. MM HYD-5a would also be implemented; however, this measure has been revised as described *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications*. MM HYD-5b has been removed and superseded by the revised version of MM HYD-5a. The revisions to each of these measures and their effect on the assessments in the Final EIR are as follows:

- MM HYD-5a – This measure has been revised to require that a Construction General Permit be obtained from the State Water Resources Control Board (SWRCB). The original measure required that the environmental training and monitoring program, described in HYDRO SCE-2, be reviewed and approved by the Santa Ana RWQCB; however, this agency is not responsible for reviewing environmental training programs and the Construction General Permit is the appropriate mechanism for permitting stormwater discharge. By obtaining the Construction General Permit and implementing the required SWPPP, impacts associated with stormwater discharge would comply with the applicable regulations and this revision would not change the severity of the impacts identified in the Final EIR.

- MM HYD-5b – This measure has been removed and is superseded by MM HYD-5a. As originally prepared, MM HYD-5b required the Santa Ana RWQCB to review and approve the SWPPP. There is no mechanism for the RWQCB to approve the SWPPP that

is associated with the Construction General Permit described in MM HYD-5a. As a result, by implementing MM HYD-5a and the SWPPP, SCE would obtain the appropriate coverage for stormwater discharge and no change to the severity of impacts identified in the Final EIR would occur.

As described previously, with the implementation of MM HYD-5a, SCE would obtain a General Construction Permit for the Approved Project with the Proposed Modifications. The SWPPP, which would be implemented as part of the General Construction Permit, would include BMPs, such as installation of wattles, and silt fence, which would reduce impacts associated with runoff water and storm water drainage systems. In addition, APM HYDRO-SCE-2 requires that personnel receive an environmental training, which would include measures for preventing runoff. Proposed Modifications would not increase the significance of impacts to runoff water and storm water drainage systems beyond those described for the Approved Project in the Final EIR. As a result, impacts would be less than significant and consistent with the Final EIR's assessment of Class II. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-5 as compared to the Final EIR.

Impact HYD-6: Water Quality

The Final EIR determined that permit requirements would ensure water quality is maintained at acceptable levels as the Approved Project would need to comply with all of the Santa Ana RWQCB water quality standards and/or drainage discharge requirements. Thus, impacts related to substantial water quality degradation would be less than significant (Class III).

Surface water quality could be diminished as a result of: 1) excavation due to installation of poles and guard structures; 2) scraping and grading, and material laydown at stringing sites/laydown areas; 3) constructing culverts in ephemeral creeks; and 4) grading to construct new access roads. The total surface disturbance associated with the subtransmission line and telecommunication line includes approximately 306.83 to 333.09 acres of temporary impact and approximately 38.03 to 43.60 acres of permanent impact.

As described previously, construction techniques and surface disturbance resulting from Proposed Modifications are similar to those assessed in the Final EIR. *Table 3.6-3: Ground Disturbance from the Approved Project with Proposed Modifications* provides the total amount of ground disturbance from Proposed Modifications. Similar to the assessment in the Final EIR, permit requirements would ensure water quality is maintained at acceptable levels as the Approved Project would need to comply with all of the State Water Resource Control Board water quality standards and/or drainage discharge requirements. Revised MM HYD-5a requires that the Approved Project obtain Construction General Permit coverage through the SWRCB. Therefore, the SWRCB standards would be met through implementation of the SWPPP. With the implementation of the SWPPP, Proposed Modifications would not increase the significance of impacts to surface water quality beyond those described for the Approved Project in the Final EIR. As a result, impacts would be less than significant and consistent with the Final EIR's assessment of Class III. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-6 as compared to the Final EIR.

Impact HYD-7: Flood Hazard Zones

The Final EIR indicated that portions of the proposed subtransmission line and telecommunications system would be constructed within 100-year FEMA designated flood hazard zones. SCE's engineering design for poles in the Final EIR were designed to take into account that the base of some poles in these segments could be in flood zones and would thereby avoid any adverse effects related to construction such as potential displacement. The impact of construction of the telecommunications system poles would be the same as the construction of the proposed subtransmission line and would not be significant. Underground segments of the telecommunications system would be designed to withstand periods of flooding or inundation and would not be significantly affected by flooding. SCE would implement the same APMs included in the Final EIR for the Approved Project. As a result, impacts associated with flooding would be reduced to less-than-significant levels (Class II) after implementation of MMs HYD-7a and HYD-7b.

Segments 1, 3 through 6, and 8 are partially located within 100-year FEMA designated flood hazard zones. The portions of the Approved Project that have been realigned along Segments 5 and 6, and the previous alignment, as assessed in the Final EIR, occur within similar portions of the 100-year FEMA designated flood hazard zones. SCE's engineering design for the majority of poles has not changed from what was assessed in the Final EIR. Hybrid LWSPs and guy poles have been added to the Approved Project; however, the additional pole types pose no additional risk of causing adverse effects, such as potential displacement. Because the pole types associated with the Proposed Modifications pose no additional risk of causing adverse effects, impacts associated with the realignment of portions of the subtransmission line and telecommunications system and additional poles would not differ from those assessed in the Final EIR. In addition, new underground portions of the telecommunications system and of Segment 8 of the subtransmission line would be designed to withstand periods of flooding or inundation and would not be significantly affected by flooding. SCE would implement the same APMs included in the Final EIR for the Approved Project. MM HYD-7a requires that aboveground features be placed outside of watercourses, unless engineering analysis, reviewed by the CPUC, demonstrates that watercourse avoidance is not practicable. SCE has sited aboveground features such as poles outside of the watercourses to the greatest extent feasible. SCE is also complying with MM HYD-7b, which requires that National Flood Insurance Program (NFIP) building requirements are followed. As a result, impacts would be less than significant and consistent with the Final EIR's assessment of Class II. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-7 as compared to the Final EIR.

Impact HYD-8: Structures that Impede or Redirect Flood Flows

The Final EIR indicated that the poles associated with the Approved Project would be exposed to flood conditions, but would not redirect flows to increase local flooding. The poles associated with the Proposed Modifications would have a similar footprint and would not substantially alter or spread flood flows. Therefore, impacts from construction and operation of the proposed subtransmission line, telecommunications system, and Valley Substation upgrade related to flooding would be reduced to less-than-significant levels with the implementation of MMs HYD-7a and 7b (Class III).

Similar to the assessment included in the Final EIR, the realignment and additional poles and guard structures associated with the Proposed Modifications may be exposed to flood conditions but would not redirect flows to increase local flooding. Guard structures would be temporary structures, and the poles associated with the Proposed Modifications have a small footprint and would not substantially alter or spread flood flows. In addition, SCE would implement MMs HYD-7a and 7b, which require that aboveground features be placed outside of watercourses to the greatest extent feasible, and that NFIP building requirements are followed. Proposed Modifications would not increase the significance of impacts relating to redirecting flood flows beyond those described for the Approved Project in the Final EIR. As a result, impacts would be less than significant and consistent with the Final EIR's assessment of Class III. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-8 as compared to the Final EIR.

Impact HYD-9: Flooding as a Result of Failure of a Levee or Dam

The Final EIR indicates that the proposed subtransmission line and telecommunications system poles have a small footprint and would be designed to account for potential flooding impacts such as periods of inundation. Any impacts to flooding as a result of a failure of a levee or dam would be reduced to less-than-significant levels with the implementation of MMs HYD-7a and 7b (Class II).

The subtransmission realignment, undergrounding of Segment 8 of the subtransmission line and portions of the telecommunications system, and additional poles would not increase the significance of impacts relating to flooding as a result of a failure or a levee or dam beyond those described for the Approved Project in the Final EIR. None of the aboveground structures associated with the Proposed Modifications have the potential to impact flooding as a result of the failure of a levee or dam. As a result, with the implementation of MMs HYD-7a and 7b, impacts would be less than significant and consistent with the Final EIR's assessment of Class III. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-9 as compared to the Final EIR.

Impact HYD-10: Inundation by Seiche, Tsunami, or Mudflow

The Final EIR indicated that Lake Elsinore is the largest enclosed body of water in the project area, with the closest segment of the proposed subtransmission line and telecommunications line being approximately two miles from Lake Elsinore. Therefore; the Final EIR concluded that the line would not be subject to inundation by seiche and no impacts to the Approved Project would occur from seiches (Class III). The subtransmission alignment of the Approved Project would be located on relatively flat terrain, far from steep slopes in the region most susceptible to mudflows. Therefore, the Final EIR indicated that potential impacts to the proposed subtransmission line and telecommunications line associated with mudflows would be less than significant. The Final EIR indicated that the Approved Project area is over 20 miles from the Pacific Ocean and not subject to inundation by tsunami. Therefore, no impact to the Approved Project from a tsunami would occur. Due to the topographic position, geologic conditions, and lack of nearby or up slope water bodies, there would be no impact to the Approved Project as a result of inundation by seiche, tsunami, and mudflow (Class III).

The realignment associated with the Proposed Modifications does not increase the proximity of the subtransmission line to Lake Elsinore. Therefore, no impacts to the Proposed Modifications would occur from seiches (Class III). The realignment associated with the Proposed Modifications stays generally on flat terrain, similar to the Approved Project alignment. . Therefore, potential impacts to the proposed subtransmission line and telecommunications system associated with mudflows would be less than significant (Class III). The realignment associated with the Proposed Modifications would not increase the proximity of the subtransmission alignment to the Pacific Ocean. Hence, there would be no impact to the Proposed Modifications from a tsunami (Class III). Due to the similarity in topography and geologic conditions between the Approved Project alignment and the Proposed Modification realignment, the Proposed Modifications would not increase the significance of impacts relating to seiche, tsunami, or mudflow beyond those described for the Approved Project in the Final EIR. As a result, impacts would be less than significant and consistent with the Final EIR's assessment of Class III. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HYD-10 as compared to the Final EIR.

3.6.2.3 Additional Evaluation

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.6.3 Summary

As indicated in *Table 3.6-5: Significance of Impact Changes – Hydrology and Water Quality*, Proposed Modifications would not significantly increase the severity of effects nor change the determinations of significance on hydrological resources identified in the Final EIR. Therefore, impact significance levels identified in the Final EIR would not change as a result of the Proposed Modifications.

Table 3.6-5: Significance of Impact Changes – Hydrology and Water Quality

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[4]
Impact HYD-1: Water Quality Standards and Waste Discharge Requirements	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM HYDRO-SCE-1 APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4 MM HYD-1a	APM HYDRO-SCE-1 (revised) APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4 MM HYD-1a
Impact HYD-2: Groundwater Supplies and Recharge	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact HYD-3: Drainage Patterns, Erosion, and Siltation	Class III (Less than Significant)	Class III (Less than Significant)	APM HYDRO-SCE-1 APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4	APM HYDRO-SCE-1 (revised) APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4
Impact HYD-4: Drainage Patterns and Flooding	Class III (Less than Significant)	Class III (Less than Significant)	APM HYDRO-SCE-1 APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4	APM HYDRO-SCE-1 (revised) APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4
Impact HYD-5: Runoff Water and Storm Water Drainage Systems	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM HYDRO-SCE-1 APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4 MM HYD-5a MM HYD-5b	APM HYDRO-SCE-1 (revised) APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4 MM HYD-5a (revised) MM HYD-5b

[4] Refer to *Chapter 2 – Proposed Modifications* for details on the revised measures.

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[4]
Impact HYD-6: Water Quality	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact HYD-7: Flood Hazard Zones	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM HYD-7a MM HYD-7b	MM HYD-7a MM HYD-7b
Impact HYD-8: Structures that Impede or Redirect Flood Flows	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM HYD-7a MM HYD-7b	MM HYD-7a MM HYD-7b
Impact HYD-9: Flooding as a Result of Failure of a Levee or Dam	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM HYD-7a MM HYD-7b	MM HYD-7a MM HYD-7b
Impact HYD-10: Inundation by Seiche, Tsunami, or Mudflow	Class III (Less than Significant)	Class III (Less than Significant)	None	None

Source: CPUC, 2010

3.6.4 References

California Resources Agency. 2010. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

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3.7 HAZARDS AND PUBLIC SAFETY

This section summarizes the impacts associated with hazards and public safety identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to hazards and public safety, and analyzes the potential effects of the Proposed Modifications on hazards and public safety. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

3.7.1 Summary of Final EIR

The Final EIR determined that impacts associated with hazards and public safety would be less than significant with mitigation. *Table 3.7-1: Summary of Final EIR – Hazards and Public Safety* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for hazards and public safety associated with the Approved Project.

Table 3.7-1: Summary of Final EIR – Hazards and Public Safety

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact HAZ-1: Environmental Hazards Due to the Use, Transport, or Storage of Hazardous Materials. The Final EIR determined that environmental hazards could result during construction due to the use, transport, or storage of hazardous materials.	Class III (Less than Significant)	APM HAZ-Southern California Edison (SCE)-1 APM HAZ-SCE-4
Impact HAZ-2: Environmental Hazards Due to Release of Hazardous Materials into the Environment. The Final EIR determined that potential hazards due to the release of hazardous materials could occur due to accidental contact with existing underground gas lines, or the use and transport of hazardous materials during operation and maintenance.	Class II (Less than Significant after Mitigation)	APM HAZ-SCE-1 APM HAZ-SCE-4 MM HAZ-2a
Impact HAZ-3: Hazardous Emissions within a Quarter Mile of a School. The Final EIR determined that potential hazards associated with the use, transport, and storage of hazardous materials could occur within 0.25 mile of a school.	Class II (Less than Significant after Mitigation)	APM HAZ-SCE-1 APM HAZ-SCE-4 MM HAZ-2a
Impact HAZ-4: Located on Hazardous Materials Site pursuant to Government Code Section 65962.5. The Final EIR determined that the Approved Project would not be located on a hazardous materials site; therefore, no impact would occur.	Class III (Less than Significant)	None
Impact HAZ-5: Public or Worker Safety Hazard Due to Proximity to a Public or Public Use Airport. The Final EIR determined that the Approved Project would not result in impacts on public or worker safety due to proximity to a public or public use airport.	Class III (Less than Significant)	None
Impact HAZ-6: Public or Worker Safety Hazard Due to Proximity to Private Airstrip. The Final EIR determined that the subtransmission line would not present any new hazards to public safety due to its proximity to Perris Valley Airport.	Class III (Less than Significant)	None
Impact HAZ-7: Interference with an Emergency Response Plan or Emergency Evacuation Plan. The Final EIR determined that potential interference with emergency response could occur during construction.	Class III (Less than Significant)	APM TRANS-APM-1
Impact HAZ-8: Significant Hazards Associated with Wildfires. The Final EIR determined that construction of the Approved Project could present a fire risk, as portions of the Approved Project are located adjacent to grasslands that are prone to wildfires and could be ignited if proper fire prevention measures are not implemented.	Class III (Less than Significant)	APM HAZ-SCE-2 APM HAZ-SCE-3

Source: California Public Utilities Commission (CPUC), 2010

3.7.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects associated with hazards and public safety from the Proposed Modifications.

3.7.2.1 Methodology

Potential impacts associated with hazards and public safety for each Proposed Modification were determined based on an assessment of whether the Proposed Modifications would:

- create a significant hazard to the public or environment from hazardous materials;
- generate hazardous emissions or require handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;
- be located on a hazardous materials site;
- result in a safety hazard;
- impair implementation of or physically interfere with an adopted emerge response plan or emergency evacuation plan; or
- expose people or structures to a significant risk involving wildland fires.

Table 3.7-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Hazards and Public Safety summarizes the significance level of impacts associated with the Proposed Modifications and provides a comparison to applicable impacts from the Final EIR.

Table 3.7-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Hazards and Public Safety

Proposed Modifications	Impact HAZ								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications									
Segment Realignment	✓	✓	NA	✓	✓	NA	✓	✓	Segment realignment associated with the Proposed Modifications has the potential to affect Impact HAZ-1, -2, -4, -5, -7, and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	✓	NA	NA	NA	NA	✓	✓	The conversion of the subtransmission line to underground has the potential to affect Impact HAZ-1, -2, -7, and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Pole Span Length/Pole Height/ Number	✓	✓	NA	✓	✓	✓	✓	✓	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact HAZ-1, -2, -4, -5, -6, -7, and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact HAZ								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Additional Pole Types	NA	NA	NA	NA	NA	NA	NA	NA	The use of additional pole types for the Proposed Modifications would not result in changes to hazards and public safety impacts as compared to the Final EIR. Hybrid poles would replace tubular steel poles or light-weight steel poles (LWSPs) in four locations along the existing alignment. The hybrid poles would be installed using similar construction methods as would be used to install the approved poles. Guy poles would be installed across from the approved LWSP poles. No hybrid or guy poles would be located within 0.25 mile of a school, on a hazardous materials site, or within 2 miles of an airport. Potential impacts from guy poles installed in new, non-approved locations are addressed in the analysis associated with segment realignment in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*.
Modified Conductor Configuration	NA	NA	NA	NA	NA	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to hazards and public safety impacts as compared to the Final EIR. The modified conductor configuration would occur along the same poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using the same construction methods described in the Final EIR.
Access Road Design Changes	✓	✓	✓	✓	NA	NA	NA	✓	Access road design changes associated with the Proposed Modifications have the potential to affect Impact HAZ-1, -2, -3, -4, and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact HAZ								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications									
Staging Areas	✓	✓	✓	NA	NA	NA	NA	✓	The use of new staging areas for the Proposed Modifications has the potential to affect Impact HAZ-1, -2, -3, and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Stringing Setup Areas	✓	✓	✓	NA	NA	NA	NA	✓	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact HAZ-1, -2, -3, and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	✓	✓	✓	NA	NA	NA	NA	✓	The use of helicopter operation yards for the Proposed Modification has the potential to affect Impact HAZ-1, -2, -3, and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Guard Structure Installation	✓	✓	NA	NA	✓	✓	NA	✓	Guard structure installation associated with the Proposed Modifications has the potential to affect Impact HAZ-1, -2, -5, -6, and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact HAZ								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Shoofly Installation	✓	✓	NA	NA	NA	NA	NA	✓	The use of a shoofly for the Proposed Modifications has the potential to affect Impact HAZ-1, -2, and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Blasting/ Fracturing	✓	✓	NA	NA	NA	NA	NA	NA	The use of blasting/fracturing for the Proposed Modification has the potential to affect Impact HAZ-1 and -2 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Use	✓	✓	✓	NA	✓	✓	NA	NA	The use of helicopters for the Proposed Modifications has the potential to affect Impact HAZ-1, -2, -3, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Telecommunications System Modifications									
Underground Installation	✓	✓	NA	NA	NA	NA	✓	✓	Underground installation of the telecommunication system associated with the Proposed Modifications has the potential to affect Impact HAZ-1, -2, -7 and -8 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact HAZ								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Overhead Installation	✓	✓	NA	NA	NA	NA	NA	NA	Overhead installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact HAZ-1 and -2 as compared to the Final EIR, as analyzed in *Section 3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Note: NA = Not Applicable

3.7.2.2 Effect of Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to hazards and public safety as identified in the Final EIR and evaluate whether the Proposed Modifications would affect the respective impact determination reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.7.2.1 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. As described in *Table 3.7-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Hazards and Public Safety*, the additional pole types and modified conductor configurations do not affect hazards and public safety; therefore, they are not described further.

Impact HAZ-1: Environmental Hazards Due to the Use, Transport, or Storage of Hazardous Materials

The Final EIR indicated that environmental hazards could result during construction due to the use, transport, or storage of hazardous materials. However, impacts would be less than significant with the implementation of APM HAZ-SCE-1, which includes the implementation of best management practices (BMPs) to minimize the risk of a spill (Class III).

Construction of the Proposed Modifications would require similar types and quantities of hazardous materials that were described in the Final EIR. Fuel and lubricants inside vehicles and equipment would be the most common types of hazardous materials. A general list of the products anticipated to be used during construction is provided in *Table 3.7-3: Hazardous Materials Typically Used for Construction*.

Table 3.7-3: Hazardous Materials Typically Used for Construction

Hazardous Materials	
2-Cycle Oil	Lubricating Grease
ABC Dry Chemical Fire Extinguisher	Mastic Coating
Acetylene Gas	Methyl Alcohol
Air Tool Oil	Oxygen
Antifreeze	Paint
Automatic Transmission Fluid	Paint Thinner
Battery Acid	Petroleum Products
Canned Spray Paint	Puncture Seal Tire Inflator
Connector Grease	Safety Fuses
Contact Cleaner 2000	Safety Solvent
Diesel Fuel and Gasoline	Starter Fluid
Gas Treatment	Wagner Brake Fluid
Jet A Fuel	WD-40
Insulating Oil	

The routine transport, use, and disposal of hazardous materials—such as fuels, lubricating oil, and hydraulic fluid—during construction may result in inadvertent releases of these materials. Any release of hazardous materials would most likely result from accidental spills or other unauthorized releases during vegetation clearing, grading, pole installation, and other construction activities. An inadvertent release could also occur from the use of hazardous materials during construction within temporary storage sites, while transporting hazardous materials to and from work areas, or during refueling and servicing of equipment. However, a Storm Water Pollution Prevention Plan (SWPPP), as specified in APM HAZ-SCE-01, would be prepared and implemented throughout construction of the Proposed Modifications. The SWPPP would include BMPs to address the storage and handling of hazardous materials during construction activities. In addition, all transport, use, and disposal of hazardous materials would be in compliance with applicable laws, rules, and regulations.

Construction of the Proposed Modifications would also result in the generation of various waste materials that would require recycling and/or disposal. Waste items and materials would be collected by construction crews and stored in roll-off boxes or other similar containers at the staging areas. All waste materials that are not recycled would be characterized by SCE in order to assure appropriate final disposal. Non-hazardous waste would be transported to licensed local waste management facilities. Hazardous materials would be disposed of at facilities that accept hazardous waste materials, in accordance with all applicable laws and regulations. The nearest

landfill to the Proposed Modifications is El Sobrante Landfill, which accepts construction and demolition waste and is classified as a Class III landfill.[1] In the event that unanticipated contaminated soil is encountered in areas of the Proposed Modifications during excavation activities, the soil would be segregated and soil samples would be collected and analyzed to determine appropriate disposal or treatment options. Based on the results of the analysis, SCE would decide whether to remove the contaminated soil or adjust the design of the Proposed Modifications to avoid contaminated soil.

Therefore, with the implementation of APM HAZ-SCE-1, Impact HAZ-1 would be less than significant and consistent with the Final EIR's assessment of Class III. As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HAZ-1 as compared to the Final EIR.

Impact HAZ-2: Environmental Hazards due to Release of Hazardous Materials into the Environment

The Final EIR indicated that potential hazards due to the release of hazardous materials could occur due to accidental contact with existing underground gas lines, or the use and transport of hazardous materials during operation and maintenance. SCE would implement APM HAZ-SCE-1, described previously, and MM HAZ-2a. MM HAZ-2a requires SCE to do the following:

- contact the Underground Service Alert of Southern California to identify the exact locations of gas pipelines within the construction area,
- contact affected private landowners to determine if septic systems and associated leach fields, as well as other underground facilities, may be impacted by construction,
- design final engineering plans to avoid or minimize interference or damage to public and private underground facilities, and
- notify by telephone the owner of underground facilities that may have been damaged or dislocated during construction.

With the adoption of MM HAZ-2a, construction of the Approved Project's subtransmission line would not create a significant risk of releasing hazardous materials into the environment (Class II).

As previously discussed, construction of the Proposed Modifications would require the limited use of hazardous materials, such as fuels, lubricants, and cleaning solvents. Due to the low volume and low toxicity of the hazardous materials to be used during the construction of the Proposed Modifications, the potential for environmental impacts from hazardous material incidents would be less than significant. All hazardous materials would be stored, handled, and used in accordance with applicable regulations, and Material Safety Data Sheets would be made available at the construction site for all crew members.

[1] Class III landfills accept municipal non-hazardous solid waste, such as common household trash or garbage.

If minor spills or drips occur during construction activities, any fluid or impacted soil would be cleaned up immediately, in accordance with the SWPPP. The SWPPP would provide the locations for storage of hazardous materials during construction, as well as protective measures, notifications, and cleanup requirements for any incidental spills or other potential releases of hazardous materials. With implementation of the SWPPP, all impacts due to accidental spills or releases would be less than significant.

During construction activities, subsurface utilities or structures may be encountered, which may result in a release of hazardous substances if the structures are damaged. However, with the implementation of MM HAZ-2a, subsurface utilities and structures would be avoided by screening prior to trenching or excavation activities.

Therefore, with the implementation of APM HAZ-SCE-1 and MM HAZ-2a, impacts would be less than significant and consistent with the Final EIR's assessment of Class II. As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HAZ-2 as compared to the Final EIR.

Impact HAZ-3: Hazardous Emissions within a Quarter Mile of a School

The Final EIR indicated that one school—Temescal Canyon High School—is located within 0.25 mile of the Approved Project's subtransmission alignment. SCE would implement MM HAZ-2a and APM HAZ-SCE-1, described previously, as well as APM HAZ-SCE-4, which requires the preparation and implementation of a Spill Prevention, Control, and Countermeasure plan prior to transporting any oil containing equipment to the site. With the implementation of these measures and practices, hazardous emissions within 0.25 mile of a school from construction of the Approved Project would constitute a less-than-significant impact (Class II).

There are no existing schools located within 0.25 mile of the proposed Valley-Ivyglen 115 kV Subtransmission Line realignments. In addition, by installing the subtransmission line along Pasadena Street, the route would be located more than 0.25 mile from Temescal Canyon High School.

The proposed Chaney alternate staging area and one stringing setup area are located within 0.25 mile of two schools—Ortega High School and Gordon Kiefer School. Both schools are located near the intersection of Chaney Street and West Minthorn Street in the City of Lake Elsinore. Construction activities at the Chaney alternate staging area would consist of installing temporary perimeter fencing, applying gravel or crushed rock, and storing and transporting construction materials and equipment.

In addition, the realigned portion of Segment 5 of the Valley-Ivyglen 115 kV Subtransmission Line and new access road along this segment are located approximately 100 feet from the proposed location for Alberhill Ranch Elementary School near the intersection of Lake Street and Nichols Road in the City of Lake Elsinore. However, this site is currently listed as an inactive investigation site on the California Department of Toxic Substances Control (DTSC) Cortese List where action has been required since 2008 due to the presence of methane in the soil. No cleanup has occurred to date; therefore, the Proposed Project would likely be completed prior to construction of the proposed school.

A new permanent access road along Segment 6 is located within 0.25 mile of Luiseno Elementary School located near the intersection of Mountain Road and Cobble Drive in unincorporated Riverside County. Construction of the access road would require clearing and grubbing, as well as potential stability improvements.

A portion of the underground telecommunications system and stringing setup areas near Ivyglen Substation are located within 0.25 mile of Todd Elementary School near the intersection of Campbell Ranch Road and Mayhew Canyon Road in unincorporated Riverside County. Construction activities within 0.25 mile of the school would involve the installation of new cable within the existing conduit using heavy construction equipment.

As previously discussed, construction of the Proposed Modifications would require the limited use of hazardous materials, such as fuels, lubricants, and cleaning solvents. Construction would not involve the use of large quantities of hazardous materials on site and their use would be primarily for the operation of vehicles and equipment. If hazardous materials are released or encountered during construction, they would be contained and managed through implementation of the BMPs provided in the SWPPP, in accordance with APM HAZ-SCE-1. In addition, SCE would implement APM HAZ-SCE-4 to prevent the spill of oil and MM HAZ-2a to ensure avoidance of natural gas lines during excavation and trenching activities. Due to the temporary and short-term nature of construction and the relatively small quantity of hazardous materials to be used during construction, impacts to schools from potential hazardous substance emissions would be unlikely.

Therefore, with the implementation of APM HAZ-SCE-1, APM HAZ-SCE-4, and MM HAZ-2a, impacts would be less than significant and consistent with the Final EIR's assessment of Class II. As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HAZ-3 as compared to the Final EIR.

Impact HAZ-4: Located on a Hazardous Materials Site Pursuant to Government Code Section 65962.5

The Final EIR indicated that the Approved Project would not be located on a hazardous materials site. Therefore, no impact would occur (Class III).

Based on a review of the DTSC EnviroStor database and Internet searches of federal, state, and local hazardous materials databases, the Proposed Modifications would not be located on a hazardous material site. The search included a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. In addition, the Proposed Modifications are not located on a known hazardous waste site.

The proposed Alberhill Ranch Elementary School site located near the intersection of Nichols Road and Lake Street is listed by the DTSC as inactive and withdrawn. The construction activities associated with the Proposed Modifications would not affect or be affected by this site. As a result, the public or environment would not be exposed to any new hazards. No impact would occur, which is consistent with the Final EIR's assessment of Class III (Less than Significant). As a result, the Proposed Modifications would not result in a new significant impact

or substantially increase the severity of the impact related to Impact HAZ-4 as compared to the Final EIR.

Impact HAZ-5: Public or Worker Safety Hazard due to Proximity to a Public or Public Use Airport

The Final EIR indicated that the subtransmission line route is approximately 1.1 miles from Perris Valley Airport, a private airport primarily used for recreation and that the closest public use airport to the project is Lake Elsinore Skylark Airport, located approximately 4.9 miles from the Approved Project's subtransmission alignment. The analysis concluded that because there are no public airports within 2 miles of the Approved Project, the impact of the subtransmission line on public or worker safety due to the proximity to a public use airport is less than significant and would not require mitigation (Class III).

The Final EIR indicated that Perris Valley Airport is a private use airport located approximately 1.1 miles from Segment 1 of the Valley-Ivyglen 115 kV Subtransmission Line Route. The Final EIR also indicated that its runway is parallel to the proposed route. Airport data from the Federal Aviation Administration (FAA) indicates that Perris Valley Airport is open to the public, and its longest runway measures approximately 1,900 feet. This runway is oriented in a generally north-south direction and, as a result, it is perpendicular to Segment 1. In addition, the southernmost end of this runway is located approximately 1.5 miles from the Approved Project's subtransmission alignment.

There are no proposed realignments of the subtransmission line within 2 miles of Perris Valley Airport, and no poles along Segment 1 within 2 miles of Perris Valley Airport would be approximately taller than those originally included in the Final EIR. This portion of the alignment is located within the Zone E of the Perris Valley Airport Land Use Compatibility Plan. Additional discussion of airport safety zones is provided in *Section 3.11 Transportation and Traffic*. As construction activities within Zone E of the Perris Valley Airport Land Use Compatibility Plan would be temporary and short term (lasting approximately 1 to 8 days per pole), construction of the Proposed Modifications would not result in a safety hazard for construction crews working within the airport safety zones. In addition, as discussed in *Section 3.14 Population and Housing*, construction of the Proposed Modifications would not induce long-term population growth nor result in a permanent increase in the area's population, and no housing or businesses would be constructed as a result of the Proposed Modifications. As a result, the Proposed Modification would not result in a permanent addition of people residing or working within airport safety zones.

Although the Proposed Modifications would result in increased pole height, the poles in the vicinity of the Perris Valley Airport would be installed directly adjacent to SCE's taller Serrano-Valley 500 kV Transmission Line. This line is supported by taller steel lattice structures. As a result, the Proposed Modifications would not change the less-than-significant (Class III) impact assessment described in the Final EIR.

Helicopters would be used to support construction activities in areas where access is limited or system outage constraints are a factor. While potential impacts related to increased air traffic are low, as described in *Section 3.11 Transportation and Traffic*, the helicopter contractor would

coordinate flight patterns with local air traffic control and the FAA in accordance with standard industry practice prior to construction to further reduce potential impacts. SCE would also prepare a helicopter use plan, if required. While the use of helicopters could temporarily increase air traffic during construction, SCE would coordinate this traffic with the applicable agencies.

Therefore, no safety hazards for people residing or working in the area would be created, and no impact would occur, which is consistent with the Final EIR's assessment of Class III (Less than Significant). As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HAZ-5 as compared to the Final EIR.

Impact HAZ-6: Public or Worker Safety Hazard due to Proximity to Private Airstrip

The Final EIR indicated that, as discussed in Impact HAZ-5, the Approved Project subtransmission alignment is approximately 1.5 miles from Perris Valley Airport, a private airport primarily used for recreation. The Approved Project's subtransmission alignment would run alongside and beneath the existing Serrano-Valley 500 kV Transmission Line and would not present any new hazards to public safety. The impact of the subtransmission line on public or worker safety due to the proximity to a public use airport would be less than significant (Class III).

As described in the previous discussion regarding Impact HAZ-5, the Perris Valley Airport is a privately owned airport that is open to public use. Skylark Field Airport is the closest private airstrip to the Proposed Modifications and is located approximately 4.3 miles southwest of Segment 4. Due to the distance between the Proposed Modifications and Skylark Field Airport, no air traffic hazards would occur. Therefore, no impact would occur, which is consistent with the Final EIR's assessment of Class III (Less than Significant). As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HAZ-6 as compared to the Final EIR.

Impact HAZ-7: Interference with an Emergency Response Plan or Emergency Evacuation Plan

The Final EIR indicated that potential interference with emergency response could occur during construction. However, impacts would be less than significant with the implementation of APM TRANS-APM-1 in *Section 3.11 Transportation and Traffic* (Class III).

Construction of the Proposed Modifications could potentially lengthen the emergency response times at locations where stringing activities would occur over roads or where poles or underground facilities would be installed from the roadway or road shoulder, requiring lane and/or road closures. The road or lane closures associated with construction activities would be temporary and short term (typically lasting a few days in each stretch of the road) and would be conducted in accordance with encroachment permits. In the event of an evacuation, construction would cease and the roads would be opened to allow passage to the extent possible. As discussed in Impact HAZ-7 in the Final EIR and TRANS-APM-1 in *Section 3.11 Transportation and Traffic*, SCE would prepare a Traffic Management Plan in coordination with Riverside County, the California Department of Transportation, and city staff. In addition, SCE would obtain and implement required encroachment permits for work within the public road right-of-way.

Therefore, impacts would be less than significant and consistent with the Final EIR's assessment of Class III. As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HAZ-7 as compared to the Final EIR.

Impact HAZ-8: Significant Hazards Associated with Wildfires

The Final EIR determined that construction of the Approved Project could present a fire risk, as portions of the Approved Project are located within high-risk fire zones. However, impacts would be less than significant with the implementation of BMPs and APM HAZ-SCE-2 and APM HAZ-SCE-3, which require implementing standard fire prevention and response measures and maintaining an area of cleared brush around construction areas, respectively (Class III).

Portions of the Proposed Modification sites would be located within areas with an extreme wildland fire threat to people. High heat or sparks from vehicles or equipment have the potential to ignite dry vegetation and cause fires. However, construction activities are generally confined to areas that have been cleared of vegetation, including access roads and work areas. Vehicles and equipment would primarily use existing roads, the majority of which are paved public roads, to access the pole work areas, all of which would be cleared of brush to reduce fire potential. In addition, as described in APM HAZ-SCE-2, SCE would implement standard fire prevention and response measures during vegetation clearing, grading, and construction activities. Trained fire-suppression personnel and fire-suppression equipment would patrol along the subtransmission line. Portable communication devices (e.g., radios or mobile telephones) would also be available to construction personnel. Furthermore, SCE has standard protocols that are implemented when the National Weather Service issues a Red Flag Warning. These protocols include measures to address storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire-suppression tools, and training requirements.

Lastly, SCE participates with the California Department of Forestry and Fire Prevention (CAL FIRE), the California Emergency Management Agency, the United States (U.S.) Forest Service, and various city and county fire agencies in the Red Flag Fire Prevention Program, and complies with California Public Resources Code Sections 4292 and 4293 related to vegetation management in transmission line corridors. SCE would also implement APM HAZ-SCE-3 to minimize the risk of fire by clearing brush around construction areas.

The Proposed Modification areas would generally be cleared of vegetation and graded prior to the staging of equipment, thus minimizing the potential for a construction vehicle to start a fire. As previously discussed, construction crews would implement standard fire prevention and response measures, such as carrying appropriate firefighting equipment and refraining from smoking during vegetation clearing, grading, and construction activities, as specified in APM HAZ-SCE-2. As a result, construction of the Proposed Modifications would have a less-than-significant impact to the risk of loss, injury, or death involving wildland fires, which is consistent with the Final EIR's assessment of Class III. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact HAZ-8 as compared to the Final EIR.

3.7.2.1 Additional Evaluation

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.7.3 Summary

As indicated in *Table 3.7-4: Significance of Impact Changes – Hazards and Public Safety*, the Proposed Modifications would not significantly increase the severity of effects nor change the determinations of significance associated with hazards and public safety identified in the Final EIR. Therefore, impact significance levels identified in the Final EIR would not change as a result of the Proposed Modifications.

Table 3.7-4: Significance of Impact Changes – Hazards and Public Safety

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs
Impact HAZ-1: Environmental Hazards Due to the Use, Transport, or Storage of Hazardous Materials	Class III (Less than Significant)	Class III (Less than Significant)	APM HAZ-SCE-1 APM HAZ-SCE-3 APM HAZ-SCE-4	APM HAZ-SCE-1 APM HAZ-SCE-3 APM HAZ-SCE-4
Impact HAZ-2: Environmental Hazards Due to Release of Hazardous Materials into the Environment	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM HAZ-2a APM HAZ-SCE-1 APM HAZ-SCE-4	MM HAZ-2a APM HAZ-SCE-1 APM HAZ-SCE-4
Impact HAZ-3: Hazardous Emissions within a Quarter Mile of a School	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM HAZ-2a APM HAZ-SCE-1 APM HAZ-SCE-3 APM HAZ-SCE-4	MM HAZ-2a APM HAZ-SCE-1 APM HAZ-SCE-3 APM HAZ-SCE-4
Impact HAZ-4: Located on Hazardous Materials Site pursuant to Government Code Section 65962.5	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact HAZ-5: Public or Worker Safety Hazard Due to Proximity to a Public or Public Use Airport	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact HAZ-6: Public or Worker Safety Hazard Due to Proximity to Private Airstrip	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact HAZ-7: Interference with an Emergency Response Plan or Emergency Evacuation Plan	Class III (Less than Significant)	Class III (Less than Significant)	APM TRANS-APM-1	APM TRANS-APM-1

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs
Impact HAZ-8: Significant Hazards Associated with Wildfires	Class III (Less than Significant)	Class III (Less than Significant)	APM HAZ-SCE-2 APM HAZ-SCE-3	APM HAZ-SCE-2 APM HAZ-SCE-3

Source: CPUC, 2010

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3.8 RECREATION

This section summarizes the impacts to recreation identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to recreation, and analyzes the potential effects of the Proposed Modifications on recreation. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified impact as compared to the Final EIR.

3.8.1 Summary of Final EIR

The Final EIR determined that impacts to recreation would be less than significant. *Table 3.8-1: Summary of Final EIR – Recreation* summarizes the impacts, significance determinations, and applicable applicant proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for recreation associated with the Approved Project.

Table 3.8-1: Summary of Final EIR – Recreation

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact REC-1: Neighborhood and Regional Parks. The Final EIR determined that the Approved Project would not increase the use in recreational facilities such that substantial physical deterioration would occur or be accelerated.	Class III (Less than Significant)	None
Impact REC-2: Construction of Recreational Facilities. The Final EIR determined that the Approved Project would not include recreational facilities or require the construction of recreational facilities.	Class III (Less than Significant)	None

Source: California Public Utilities Commission (CPUC), 2010

3.8.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on recreation from the Proposed Modifications.

3.8.2.1 Methodology

Potential impacts to recreation resulting from the construction of each Proposed Modification were determined based on an assessment of whether the modification would contribute to the physical deterioration of existing neighborhood and regional parks/recreational facilities due to increased use or require the construction or expansion of recreational facilities. The methodology used for this analysis is consistent with the methodology used for the Final EIR. *Table 3.8-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Recreation* summarizes the significance level of impacts associated with the Proposed Modifications and provides a comparison to applicable impacts from the Final EIR.

Table 3.8-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Recreation

Proposed Modifications	Impact REC		Discussion
	-1	-2	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications			
Segment Realignment	✓	NA	Segment realignment associated with the Proposed Modifications has the potential to affect Impact REC-1 as compared to the Final EIR, as analyzed in *Section 3.8.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	NA	NA	The conversion of the subtransmission line to underground associated with the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. The conversion of the subtransmission line to an underground configuration would occur within the Approved Project's existing alignment or would be located within existing roadways that are not located within or adjacent to recreational facilities. The closest recreational facility, Sycamore Creek Park, is located along Segment 8 and is approximately 0.3 mile from this proposed modification.
Modified Pole Span Length/Pole Height/Number	✓	NA	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact REC-1 as compared to the Final EIR, as analyzed in *Section 3.8.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Additional Pole Types	NA	NA	The use of additional pole types for the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. Hybrid poles would replace tubular steel poles (TSPs) or light-weight steel poles (LWSPs) in four locations along the existing alignment. The hybrid poles would be installed using similar construction methods as would be used to install the approved poles. Wood and guy poles would be installed in proximity to the approved LWSP poles. No hybrid, wood, or guy poles would be located within a recreational facility. Potential impacts from wood and guy poles installed in new, non-approved locations are addressed in the analysis associated with segment realignment in *Section 3.8.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations.*

Proposed Modifications	Impact REC		Discussion
	-1	-2	
Modified Conductor Configuration	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. The modified conductor configuration would occur along the same poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using the same construction methods described in the Final EIR.
Access Road Design Changes	NA	NA	Access road design changes associated with the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. Southern California Edison (SCE) has identified existing access roads that would be widened, new access roads that would be constructed, and overland access roads that would be established. None of these access roads or their improvements would be located within or adjacent to recreational areas. The closest recreational facility, Alberhill Ranch Community Park, is located along Segment 5 and is approximately 80 feet from this proposed modification.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications			
Staging Areas	NA	NA	The use of new staging areas for the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. New staging areas would not be located within or adjacent to recreational facilities. The closest recreational facility, Jungle Island Paintball & Airsoft Park, is located along Segment 5 and is approximately 1.3 miles from this proposed modification.
Stringing Setup Areas	✓	NA	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact REC-1 as compared to the Final EIR, as analyzed in *Section 3.8.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	NA	NA	The use of helicopter operation yards for the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. Helicopter operation yards would not be located in the vicinity of recreational facilities. The closest recreational facility, Jungle Island Paintball & Airsoft Park, is located along Segment 5 and is approximately 1.3 miles from this proposed modification.

Proposed Modifications	Impact REC		Discussion
	-1	-2	
Guard Structure Installation	✓	NA	Guard structures would be installed along the subtransmission line route prior to conductor installation activities. All guard structures would be located outside of recreational facilities. The closest recreational facility, Alberhill Ranch Community Park, is located along Segment 5 and is approximately 100 feet from this proposed modification. Impacts from guard structures located along the realigned portion of the Proposed Modifications are addressed in the analysis associated with segment realignment in *Section 3.8.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.
Shoofly Installation	NA	NA	The use of a shoofly for the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. The shoofly installation would not occur within or adjacent to recreational facilities. The closest recreational facility, Cleveland National Forest, is located along Segment 7 and is approximately 0.49 mile from this proposed modification.
Blasting/Fracturing	NA	NA	The use of blasting/fracturing for the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. Blasting/fracturing would not occur within or adjacent to recreational facilities. The closest recreational facility, Monument Ranch Park, is located along Segment 1 and is approximately 400 feet from this Proposed Modification.
Helicopter Use	NA	NA	The use of helicopters for the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. Helicopter use would not result in the closure of recreational facilities and would be limited to the subtransmission line right-of-way (ROW), helicopter operation yards, material yards, and ground locations in proximity to conductor pulling, tensioning, and splice sites. The closest recreational facility, Jungle Island Paintball & Airsoft Park, is located along Segment 5 and is approximately 1.3 miles from helicopter operation areas.

Proposed Modifications	Impact REC		Discussion
	-1	-2	
Telecommunications System Modifications			
Underground Installation	NA	NA	Underground installation of the telecommunications system associated with the Proposed Modifications would not result in changes to recreation impacts as compared to the Final EIR. Portions of the telecommunications system would be installed in existing underground conduit. The remaining portions of the underground telecommunications system would be installed in new conduits located within roadways or within the subtransmission line ROW. There are no recreational facilities located in the vicinity of the new underground conduit. The closest recreational facility, Sycamore Creek Park, is located along Segment 8, and is approximately 400 feet from this proposed modification.
Overhead Installation	✓	NA	The modifications to the telecommunications system would be collocated with the Valley-Ivyglen 115 kV Subtransmission Line; therefore, the impacts associated with this modification are addressed in the analysis associated with segment realignment and modified pole span length/pole height/number in *Section 3.8.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations.*

Note: NA = Not Applicable

3.8.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to recreation as identified in the Final EIR, and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.8.2.3 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. In addition, because the impacts on the associated overhead installation modifications of the telecommunications system would be identical to those identified for the modified pole span length/pole height/number along the Valley-Ivyglen 115 kV Subtransmission Line, the analysis of recreation impacts covers the following Proposed Modifications: segment realignment, modified pole span length/pole height/number, stringing setup areas, and guard structure installation.

Impact REC-1: Neighborhood and Regional Parks

The Final EIR indicated that the Approved Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Increased demand for local recreational facilities is primarily generated by increases in residential population. The Approved Project does not involve the construction of new residential uses, nor would it result in an increase in residential population. Therefore, the Approved Project would have no impact (Class III) on parks and recreational facilities.

SCE is proposing to realign portions of Segments 4, 5, 7, and 8 of the subtransmission line. Due to the realignment of Segment 5, the Valley-Ivyglen 115 kV Subtransmission Line would be located directly adjacent to two recreational facilities—Alberhill Ranch Community Park, located southeast of the intersection of Lake Street and Nichols Road in the City of Lake Elsinore, and Jungle Island Paintball & Airsoft Park, located southwest of the intersection of Temescal Canyon Road and Larson Avenue in unincorporated Riverside County. Two proposed stringing setup areas would be located within portions of the Alberhill Ranch Community Park, which may cause temporary closures within portions of the park, but would not require complete park closure. In addition, the rerouted Fogarty-Ivyglen 115 kV Subtransmission Line, the underground installation of the telecommunications system in an existing conduit, and a telecommunications system stringing setup area would be located adjacent to Alberhill Ranch Community Park. As described in *Section 3.11 Transportation and Traffic*, access to these facilities could be temporarily disrupted due to lane closures during pole installation and/or installation and removal of guard structures along Segment 5. Lane closures would be temporary and short-term, between two and four days during pole or guard structure installation. Stringing setup areas located along Segment 5 would also require lane closures, likely limited to a day at a time during stringing activities. Traffic flow to these areas may also be interrupted in the event that flaggers are used for traffic control during conductor removal/installation activities instead of temporary guard structures. These interruptions would be limited to approximately 15 minutes per conductor for a total of up to one hour in some locations.

While this disruption of access may temporarily increase the use of other recreational facilities in the area, closures of Alberhill Ranch Community Park and Jungle Island Paintball & Airsoft Park are not anticipated. Further, Riverside County Regional Park and Open-Space District operates approximately 27 parks and recreational facilities within Riverside County, and there are approximately 17 recreational areas located within two miles of the subtransmission line. As a result, the area has sufficient capacity to accommodate the temporary disruption of access along the subtransmission line. Any increase in use of these surrounding facilities would not substantially accelerate their physical deterioration due to the short-term nature of these access disruptions. As a result, impacts would be less than significant and consistent with the Final EIR's assessment of Class III (Less than Significant). Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact REC-1 as compared to the Final EIR.

Impact REC-2: Construction of Recreational Facilities

Because the Approved Project would include the construction of recreational facilities, the Final EIR concluded that there would be no impact (Class III). Because the Proposed Modifications do not include the construction of recreational facilities, there would be no impact and Impact REC-2 is still considered a Class III (Less-than-Significant) impact. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact REC-1 as compared to the Final EIR.

3.8.2.3 Additional Evaluation

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.8.3 Summary

As indicated in *Table 3.8-3: Significance of Impact Changes – Recreation*, Proposed Modifications would not significantly increase the severity of effects nor change the determinations of significance on recreational facilities identified in the Final EIR. Therefore, impact significance levels identified in the Final EIR would not change as a result of the Proposed Modifications.

Table 3.8-3: Significance of Impact Changes – Recreation

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs
Impact REC-1: Neighborhood and Regional Parks	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact REC-2: Construction of Recreational Facilities	Class III (Less than Significant)	Class III (Less than Significant)	None	None

Source: CPUC, 2010

3.8.4 References

California Resources Agency. 2010. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

CPUC. 2009. Southern California Edison Valley-Ivyglen Subtransmission Line and Fogarty Substation Project Draft Environmental Impact Report. Online. http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/DEIR/DEIR_Index.htm. Site visited August 7, 2012.

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3.9 AIR QUALITY

This section summarizes the impacts to air quality identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to air quality, and analyzes the potential effects of the Proposed Modifications on air quality. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified impact as compared to the Final EIR.

3.9.1 Summary of Final EIR

The Final EIR determined that impacts to air quality would be significant and unavoidable. *Table 3.9-1: Summary of Final EIR – Air Quality* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for air quality associated with the Approved Project.

Table 3.9-1: Summary of Final EIR – Air Quality

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact AIR-1: Net Emission Increase of Criteria Pollutants from Construction Activities. The Final EIR determined that emissions would be expected to be greater than South Coast Air Quality Management District (SCAQMD) daily emission significance thresholds.	Class I (Significant and Unavoidable)	APM AIR-SCE-1 APM AIR-SCE-2 APM AIR-SCE-3 APM AIR-SCE-4 APM AIR-SCE-5 APM AIR-SCE-6 APM AIR-SCE-7 APM AIR-SCE-8 APM AIR-SCE-9 MM AIR-1a MM AIR-1b MM AIR-1c MM AIR-1d MM AIR-1e
Impact AIR-2: Temporary Ambient Air Impacts Caused by Construction Activities. The Final EIR determined that construction emissions would be estimated to be below localized significance threshold (LST) levels.	Class III (Less than Significant)	APM AIR-SCE-1 APM AIR-SCE-2 APM AIR-SCE-3 APM AIR-SCE-4 APM AIR-SCE-5 APM AIR-SCE-6 APM AIR-SCE-7 APM AIR-SCE-8 APM AIR-SCE-9 MM AIR-1a MM AIR-1b MM AIR-1c MM AIR-1d
Impact AIR-3: Net Increase in Criteria Pollutant Emissions During Maintenance and Inspection Activities. The Final EIR determined that impacts to current levels of criteria pollutants due to operation and maintenance activities would be less than significant.	Class III (Less than Significant)	None
Impact AIR-4: Odor from Project Construction, Maintenance, and Inspections. The Final EIR determined that exhaust from construction vehicles may temporarily create odors; however, the level of emissions would not likely cause a perceptible odor to most people.	Class III (Less than Significant)	None
Impact AIR-5: Net Increase in Greenhouse Gas (GHG) Emissions during Project Construction. The Final EIR determined that emissions from construction activities, with the use of offset credits, would not be fully mitigated and would remain a significant impact.	Class I (Significant and Unavoidable)	MM AIR-5a
Impact AIR-6: GHG Emissions from Project Operations. The Final EIR determined that emissions from operation and maintenance, with the use of offset credits, would not be fully mitigated and would remain a significant impact.	Class I (Significant and Unavoidable)	MM AIR-6a

Source: California Public Utilities Commission (CPUC), 2010

3.9.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on air quality from the Proposed Modifications.

3.9.2.1 Methodology

Potential impacts to air quality from the construction of each Proposed Modification were determined based on an assessment of whether the modification would cause a conflict with or obstruct the implementation of an applicable air quality plan, result in a violation of an air quality standard or contribute substantially to an existing or projected air quality violation, result in a cumulatively considerable net increase of any criteria air pollutant, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people. The methodology used for this analysis is consistent with the methodology used for the Final EIR. *Table 3.9-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Air Quality* summarizes the significance level of impacts associated with the Proposed Modifications and provides a comparison to the applicable impact from the Final EIR.

Table 3.9-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Air Quality

Proposed Modifications	Impact AIR						Discussion
	-1	-2	-3	-4	-5	-6	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications							
Segment Realignment	✓	✓	NA	✓	✓	NA	Segment realignment associated with the Proposed Modifications has the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Conversion to Underground	✓	✓	NA	✓	✓	NA	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Modified Pole Span Length/Pole Height/Number	✓	✓	✓	✓	✓	✓	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact AIR-1, -2, -3, -4, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Additional Pole Types	✓	✓	NA	✓	✓	NA	The use of additional pole types for the Proposed Modifications has the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Modified Conductor Configuration	NA	NA	NA	NA	NA	NA	The use of modified conductor configuration for the Proposed Modifications would not result in changes to air quality impacts, as compared to the Final EIR. The modified conductor configuration would occur along the same poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using the same construction methods described in the Final EIR. As a result, modifying the conductor configuration would not change any impacts related to air quality.

Proposed Modifications	Impact AIR						Discussion
	-1	-2	-3	-4	-5	-6	
Access Road Design Changes	✓	✓	NA	✓	✓	NA	Access road design changes associated with the Proposed Modifications have the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications							
Staging Areas	✓	✓	NA	✓	✓	NA	The use of new staging areas for the Proposed Modifications has the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
String Setup Areas	✓	✓	NA	✓	✓	NA	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Helicopter Operation Yards	✓	✓	NA	✓	✓	NA	The use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Guard Structure Installation	✓	✓	NA	✓	✓	NA	The use of guard structures for the Proposed Modifications has the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.

Proposed Modifications	Impact AIR						Discussion
	-1	-2	-3	-4	-5	-6	
Shoofly Installation	✓	✓	NA	✓	✓	NA	The use of a shoofly for the Proposed Modifications has the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Blasting/ Fracturing	✓	✓	NA	NA	✓	NA	The use of blasting/fracturing for the Proposed Modifications has the potential to affect Impact AIR-1, -2, and -5 as compared to the Final EIR, as anlayzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Helicopter Use	✓	✓	NA	✓	✓	NA	The use of helicopters for the Proposed Modifications has the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Telecommunications System Modifications							
Underground Installation	✓	✓	NA	✓	✓	NA	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.
Overhead Installation	✓	✓	NA	✓	✓	NA	Overhead installation of the telecommunications system associated with the Proposed Modifications have the potential to affect Impact AIR-1, -2, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts or increase the severity of a previously identified significant impact as compared to the Final EIR.

Note: NA = Not Applicable

3.9.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts identified in the Final EIR, and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.9.2.3 Additional Evaluation* contains a separate analysis was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. The modified conductor configuration does not affect air quality and is not described further, as described in *Table 3.9-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Air Quality*.

Impact AIR-1: Net Emission Increase of Criteria Pollutants from Construction Activities

The Final EIR indicated that construction of the Approved Project would result in pollutant emissions from equipment/vehicle use and fugitive dust. The estimated construction emissions were calculated and then compared to the SCAQMD significance thresholds. Emissions of nitrogen oxides (NO_x), volatile organic compounds (VOCs), particulate matter (PM) less than 10 microns in diameter (PM_{10}), and PM less than 2.5 microns in diameter ($PM_{2.5}$) were determined to exceed the SCAQMD thresholds, resulting in a significant and unavoidable (Class I) impact.

In order to evaluate the effects of the Proposed Modifications, the anticipated construction emissions for the Approved Project with the Proposed Modifications were recalculated. Similar to the original analysis presented for the Valley-Ivyglen 115 kV Subtransmission Line, the Proposed Modifications would likely be constructed in two overlapping phases, as defined in *Chapter 2 – Proposed Modifications*. Maximum daily emissions for each construction activity and the peak maximum daily emissions from activities that are likely to occur concurrently were calculated. A comparison of estimated maximum daily construction emissions to applicable SCAQMD significance thresholds, presented in *Table 3.9-3: Maximum Daily Construction Emissions*, indicates that the maximum daily emissions of NO_x and PM_{10} during construction are predicted to exceed corresponding SCAQMD mass daily significance thresholds. As a result, with the continued implementation of MM AIR-1a through MM AIR-1e, emissions would continue to be significant and consistent with the Final EIR's Class I (Significant and Unavoidable) assessment. Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact AIR-1 as compared to the Final EIR.

Table 3.9-3: Maximum Daily Construction Emissions

Concurrent Activities	Approximate Construction Emissions (pounds per day)					
	VOCs	**CO**	**NO_x**	**Sulfur Oxide (SO_x)**	**PM_{10}**	**$PM_{2.5}$**
Survey, Laydown Yard Operation, Right-of-Way Clearing, Roads and Landing Work, Retaining Wall, Blasting	31.95	143.01	255.91	0.36	264.91	52.09
Laydown Yard Operation, Guard Structure Installation, Install Tubular Steel Pole (TSP) Foundations, TSP Haul, TSP Assembly, TSP Erection	21.89	108.50	164.62	0.27	136.11	20.99
Laydown Yard Operation, Light-Weight Steel Pole (LWSP) Haul, LWSP Assembly, Install LWSP	13.44	64.82	105.26	0.16	80.80	11.49
Laydown Yard Operation, Install Conductor, Guard Structure Removal, Restoration	67.55	166.85	261.95	26.49	120.44	20.03
Laydown Yard Operation, Remove Conductor & Ground Wire, LWSP Removal, Vault Installation, Duct Bank Installation, Install Underground Cable	44.43	179.46	383.77	0.55	189.12	30.48
Peak Daily Maximum	**67.55**	**179.46**	**383.77**	**26.49**	**264.91**	**52.09**
SCAQMD Regional Thresholds of Significance	75	550	100	150	150	55
Exceeds Threshold?	No	No	**Yes**	No	**Yes**	No
Significance Level	Not Significant	Not Significant	**Significant**	Not Significant	**Significant**	Not Significant

Impact AIR-2: Temporary Ambient Air Impacts Caused by Construction Activities

The Final EIR indicated that construction activities would be anticipated to cause a temporary increase in ambient air pollutant concentrations. The SCAQMD's LST methodology was used to analyze localized impacts associated with construction. All pollutants were found to be below the applicable LST. As a result, impacts were determined to be Class III (Less than Significant). Even though localized impacts have been classified as insignificant, application of MM AIR-1a through MM AIR-1d would reduce potential impacts.

The same SCAQMD LST methodology utilized in the Final EIR was used to assess the significance of impacts caused by emissions of NO_x, carbon monoxide (CO), PM_{10}, and $PM_{2.5}$ during construction. Since construction activities would occur at different locations throughout the length of the proposed Valley-Ivyglen 115 kV Subtransmission Line, LST analysis was performed for the activity most likely to cause the greatest amount of emissions at a single location. The activity identified was excavating for a large TSP foundation. For construction activities, the equipment exhaust and fugitive dust emissions included in the LST analysis were limited to those generated on-site (i.e., emissions from off-site travel were not included as they occur at a different location), in accordance with methodologies provided by the SCAQMD. The results of the LST analysis are presented in *Table 3.9-4: LST Analysis Results*. A detailed summary of the calculations used to estimate construction emissions has been included in Appendix 3: Air Quality Calculations of the Final EIR.

Table 3.9-4: LST Analysis Results

Activity	Approximate Construction Emissions (pounds per day)			
	CO	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Install TSP Foundations	13	44	2	2
SCAQMD LST	602	147	4	3
Exceeds Threshold?	No	No	No	No
Significance Level	Not Significant	Not Significant	Not Significant	Not Significant

Note: SCAQMD LST thresholds are based on a one acre site and a distance of 25 meters to the receptor. The lowest value provided for Perris Valley and Lake Elsinore were used.

The estimated maximum daily emissions during construction activities are predicted to be below the corresponding LSTs. As a result, the Proposed Modifications would result in a less-than-significant impact that is consistent with the Final EIR's Class III (Less-than-Significant) assessment. Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact AIR-2 as compared to the Final EIR.

Impact AIR-3: Net Increase in Criteria Pollutant Emissions During Maintenance and Inspection Activities

The Final EIR concluded that the operation of the Approved Project would result in minimal emissions of criteria air pollutants. These emissions would be the result of periodic maintenance

and inspection activities with the subtransmission line requiring inspection approximately three weeks per year.

The number of poles to be used to support the overhead portion of the Valley-Ivyglen 115 kV Subtransmission Line would decrease by approximately four percent. Fewer poles would lead to decreased maintenance activities when compared to the original design; however, this decrease would be minimal because it is anticipated that the Proposed Modifications would not alter the overall maintenance inspection frequency. As a result, impacts during the operation and maintenance of the Proposed Modifications would be less than significant and consistent with the Final EIR's Class III (Less-than-Significant) assessment. Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact AIR-3 as compared to the Final EIR.

Impact AIR-4: Odor from Project Construction, Maintenance, and Inspections

The Final EIR concluded that exhaust from construction vehicles may temporarily create odors due to the combustion of fuel. However, the level of emissions would not likely cause a perceptible odor to most people, and any perceptible levels would be temporary, lasting between one and two days at each LWSP and between one and two weeks at each TSP and stringing setup area during construction. Vehicle emissions during Approved Project operation would be minimal, and consequently, no objectionable odors would be expected. Impacts associated with objectionable odors with the potential to affect a substantial number of people would be less than significant (Class III).

The Proposed Modifications would require a similar mixture of construction equipment that would be used in similar proximity to receptors along the subtransmission line alignment. As a result, perceptible levels of odor associated with the construction of the Proposed Modifications would be similar to those described for the Project without the modifications. They would also continue to be temporary, resulting in a less-than-significant impact that is consistent with the Final EIR's Class III (Less-than-Significant) assessment. As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact AIR-4 as compared to the Final EIR.

Impact AIR-5: Net Increase in GHG Emissions during Project Construction

As described in the Final EIR, GHGs would be emitted from employee vehicles, light-duty vehicles (e.g., crew trucks, line trucks, and water trucks), and off-road equipment (e.g., bulldozers, graders, and backhoes) during construction. With the implementation of MM AIR-5a, which requires the purchase of carbon credits to offset construction emissions, impacts would be reduced, but still Significant and Unavoidable (Class I).

The total anticipated GHG emissions from each phase of construction are presented in *Table 3.9-5: GHG Emissions from Construction*. At the time the Final EIR was prepared, no applicable threshold for GHG emissions during construction or operation and maintenance was available. As a result, the emissions in the Final EIR were compared against a very conservative "net zero" threshold, where any emission of GHG is considered significant. Since the preparation of the Final EIR, the SCAQMD has released an interim annual threshold of 10,000 metric tons (MT) of carbon dioxide equivalent (CO_2e) for industrial projects, which represents a reasonable threshold

for considering the potential significance of a project's GHG emissions. The total GHG emissions from construction of the Approved Project with the Proposed Modifications were calculated according to the methodology provided in Appendix 3: Air Quality Calculations of the Final EIR. Approximately 6,568 MT of CO_2e would be emitted during all construction activities.

Table 3.9-5: GHG Emissions from Construction

Activity	Approximate CO_2e Construction Emissions (MT)
Survey	4.77
Laydown Yard Operation	376.41
ROW Clearing	232.20
Roads and Landing Work	826.66
Guard Structure Installation	101.20
Install TSP Foundations	725.26
TSP Haul	33.03
TSP Assembly	214.64
TSP Erection	218.57
LWSP Haul	116.57
LWSP Assembly	280.31
Install LWSP	585.42
Install Conductor	943.13
Guard Structure Removal	55.35
Restoration	70.14
Remove Conductor and Ground Wire	59.19
LWSP Removal	21.09
Vault Installation	129.09
Duct Bank Installation	53.41
Install Underground Cable	54.64
Retaining Wall	1345.65
Blasting	121.17
Total Construction GHG Emissions	**6,568**
Amortized Construction GHG Emissions	219
Operational GHG Emissions	34
Sum of Construction and Operational GHG Emissions to be Compared to Threshold	**253**
SCAQMD GHG Interim Threshold of Significance[1]	10,000
Exceeds Threshold?	**No**
Significance Level	**Not Significant**

[1] The GHG analysis presented in the Final EIR compared emissions against the most conservative "net zero" threshold. The SCAQMD has since released an interim GHG threshold of 10,000 MT of CO_2e per year.

Under the SCAQMD's interim threshold, construction emissions are to be amortized for 30 years and added to the Approved Project's annual operational emissions. The annual emissions with the Proposed Modifications incorporated would be well below the SCAQMD's interim threshold. On this basis, it would be reasonable to assume the Proposed Modifications would be less than significant. Moreover, MM AIR-5a requires Southern California Edison (SCE) to obtain and hold sufficient carbon credits to fully offset GHG emissions from construction. As a result, GHG emissions from construction, operation, and maintenance of the Approved Project with the Proposed Modifications would be less than significant after mitigation (Class II). Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact AIR-5 as compared to the Final EIR.

Impact AIR-6: GHG Emissions from Project Operations

The Final EIR indicated that the ongoing operation of the Approved Project would result in GHG emissions associated with periodic maintenance/inspection. The Final EIR used the "net zero" threshold for the evaluation of these GHG emissions. With the implementation of MM AIR-6a, which requires SCE to obtain offsets for all operational emissions, the Final EIR concluded that impacts were not mitigated to a less-than-significant level and impacts were considered Class I (Significant and Unavoidable).

As described previously, operational emissions associated with the Proposed Modifications would typically be limited to periodic inspections of the subtransmission line. These emissions would be minor when compared to the emissions from the construction phase. Since the time of the Final EIR, the SCAQMD has prepared a Draft Guidance Document entitled *Interim CEQA Greenhouse Gas Significance Thresholds* (October 2008) for evaluating operational and construction impacts of proposed industrial projects, and has adopted an interim threshold of 10,000 MT of CO_2e per year, which includes emissions from stationary and transportation-related sources.

The annual emissions with the Proposed Modifications incorporated would be well below the SCAQMD's interim threshold, which represents a reasonable threshold for considering the potential significance of a project's GHG emissions. Specifically, 253 MT of CO_2e per year from amortized construction and operation, of which 34 MT alone would be attributed to operational emissions. Because the annual GHG emissions are below the SCAQMD interim threshold it would be reasonable to replace the "net zero" threshold for GHG emissions, and consider the Proposed Modifications' emissions of GHG as less than significant. On this basis, the Proposed Modifications would be less than significant (Class III), even without implementation of MM AIR-06. Therefore, SCE is proposing to remove the requirement of MM AIR-06, which required SCE to offset operational GHG emissions. Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact AIR-6 as compared to the Final EIR.

3.9.2.3 Additional Evaluation

The California Environmental Quality Act (CEQA) Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and two new checklist questions have been added for this resource area. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The analysis of Impacts AIR-5 and AIR-6 for the Proposed Modifications satisfy these CEQA Checklist questions. Furthermore, there are currently no applicable plans, policies, or regulations that have been formally adopted.

3.9.3 Summary

As indicated in *Table 3.9-6: Significance of Impact Changes – Air Quality*, the Proposed Modifications would change one of the determinations of significance on air quality identified in the Final EIR. Therefore, impact significance levels identified in the Final EIR would change as a result of the Proposed Modifications.

Table 3.9-6: Significance of Impact Changes – Air Quality

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs
Impact AIR-1: Net Emission Increase of Criteria Pollutants from Construction Activities	Class I (Significant and Unavoidable)	Class I (Significant and Unavoidable)	APM AIR-SCE-1 APM AIR-SCE-2 APM AIR-SCE-3 APM AIR-SCE-4 APM AIR-SCE-5 APM AIR-SCE-6 APM AIR-SCE-7 APM AIR-SCE-8 APM AIR-SCE-9 MM AIR-1a MM AIR-1b MM AIR-1c MM AIR-1d MM AIR-1e	APM AIR-SCE-1 APM AIR-SCE-2 APM AIR-SCE-3 APM AIR-SCE-4 APM AIR-SCE-5 APM AIR-SCE-6 APM AIR-SCE-7 APM AIR-SCE-8 APM AIR-SCE-9 MM AIR-1a MM AIR-1b MM AIR-1c MM AIR-1d MM AIR-1e
Impact AIR-2: Temporary Ambient Air Impacts Caused by Construction Activities	Class III (Less than Significant)	Class III (Less than Significant)	APM AIR-SCE-1 APM AIR-SCE-2 APM AIR-SCE-3 APM AIR-SCE-4 APM AIR-SCE-5 APM AIR-SCE-6 APM AIR-SCE-7 APM AIR-SCE-8 APM AIR-SCE-9 MM AIR-1a MM AIR-1b MM AIR-1c MM AIR-1d	APM AIR-SCE-1 APM AIR-SCE-2 APM AIR-SCE-3 APM AIR-SCE-4 APM AIR-SCE-5 APM AIR-SCE-6 APM AIR-SCE-7 APM AIR-SCE-8 APM AIR-SCE-9 MM AIR-1a MM AIR-1b MM AIR-1c MM AIR-1d MM AIR-1e
Impact AIR-3: Net Increase in Criteria Pollutant Emissions During Maintenance and Inspection Activities	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact AIR-4: Odor from Project Construction, Maintenance, and Inspections	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact AIR-5: Net Increase in GHG Emissions During Project Construction	Class I (Significant and Unavoidable)	Class II (Less than Significant after Mitigation)	MM AIR-5a	MM AIR-5a

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs
Impact AIR-6: GHG Emissions from Project Operations	Class I (Significant and Unavoidable)	Class III (Less than Significant)	MM AIR-6a	MM AIR-6a

Source: CPUC, 2010

3.9.4 References

CPUC. 2009. Southern California Edison Valley-Ivyglen Subtransmission Line and Fogarty Substation Project Draft Environmental Impact Report. Online. http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/DEIR/DEIR_Index.htm. Site visited August 7, 2012.

CPUC. 2010. Southern California Edison Valley-Ivyglen Subtransmission Line and Fogarty Substation Project Final Environmental Impact Report. Online. http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/FEIR/FEIR_Index.htm. Site visited August 7, 2012.

SCAQMD. Localized Significance Thresholds. Online. http://www.aqmd.gov/ceqa/handbook/LST/LST.html. Site visited May 21, 2012d.

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3.10 NOISE

This section summarizes the impacts from noise identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to noise, and analyzes the potential effects of the Proposed Modifications from noise. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified impact as compared to the Final EIR.

3.10.1 Summary of Final EIR

The Final EIR determined that the impacts from noise would be less than significant. *Table 3.10-1: Summary of Final EIR – Noise* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for noise associated with the Approved Project.

Table 3.10-1: Summary of Final EIR – Noise

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact NOISE-1: Noise Levels that Exceed Standards. The Final EIR determined that residences located directly adjacent to construction of the Approved Project would experience significant noise impacts from subtransmission line construction; however, by limiting construction hours to those allowed by local jurisdictional agencies, noise impacts would be less than significant. No significant noise impacts would occur during work associated with or the telecommunications system.	Class II (Less than Significant after Mitigation)	NOISE-Southern California Edison- (SCE-) 1 NOISE-SCE-2 NOISE-SCE-3 NOISE-SCE-4 NOISE-SCE-5 NOISE-SCE-6 MM NOISE-1a
Impact NOISE-2: Excessive Ground-borne Vibrations or Ground-borne Noise Levels. The Final EIR determined that because Approved Project construction would not occur within 50 feet of sensitive receptors, no significant vibration impacts would occur.	Class III (Less than Significant)	NOISE-SCE-1 NOISE-SCE-3 NOISE-SCE-5
Impact NOISE-3: Permanently Increase Ambient Noise Levels in the Project Vicinity. The Final EIR determined that operation of the Approved Project would cause permanent corona noise from the subtransmission line. The corona noise would not exceed noise standards, and no significant impact would occur.	Class III (Less than Significant)	None
Impact NOISE-4: Substantial Temporary or Periodic Increase in Ambient Noise Levels in the Project Vicinity. The Final EIR determined that because construction of the Approved Project would be limited to the hours allowed by local jurisdictional agencies, no significant impacts would occur.	Class II (Less than Significant after Mitigation)	NOISE-SCE-1 NOISE-SCE-2 NOISE-SCE-3 NOISE-SCE-4 NOISE-SCE-5 NOISE-SCE-6 MM NOISE-1a
Impact NOISE-5: Impacts to Construction Workers from Airport and Airstrip Noise. The Final EIR determined that the Approved Project would not be located within an airport land use plan or where such a plan has been adopted.	Class III (Less than Significant)	None
Impact NOISE-6: Impacts to Residents in the Vicinity of a Private Airstrip. The Final EIR determined that the Approved Project would not be located in the vicinity of a private airstrip.	Class III (Less than Significant)	None

Source: California Public Utilities Commission (CPUC), 2010

3.10.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential noise effects from the Proposed Modifications.

3.10.2.1 Methodology

Potential impacts from noise associated with the construction of each Proposed Modification were determined based on an assessment of whether the modification would expose people or generate noise or ground-borne vibration in excess of established standards; create a substantial, permanent increase in ambient noise levels; create a substantial, temporary or periodic increase in noise levels; or expose people residing or working in the area to excessive noise levels generated from a public or private airport. The methodology used for this analysis is consistent with the methodology used for the Final EIR. *Table 3.10-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Noise* summarizes the significance level of impacts associated with the Proposed Modifications and provides a comparison to the applicable impacts from the Final EIR.

Table 3.10-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Noise

Proposed Modifications	Impact NOISE						Discussion
	-1	-2	-3	-4	-5	-6	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications							
Segment Realignment	✓	✓	✓	✓	✓	✓	Segment realignment associated with the Proposed Modifications has the potential to affect Impact NOISE-1, -2, -3, -4, -5, and -6 as compared to the Final EIR, as analyzed in *Section 3.10.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	✓	NA	✓	NA	NA	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact NOISE-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.10.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Pole Span Length/Pole Height/Number	NA	NA	NA	NA	NA	NA	The modified pole span length/pole height/number associated with the Proposed Modifications would not result in changes to noise impacts as compared to the Final EIR. The construction equipment used to modify pole span length/pole height/number of the Valley-Ivyglen 115 kV Subtransmission Line, and thus the resulting noise emissions would be the similar or the same as the construction equipment described in the Final EIR. As a result, there would be no change in the impact discussed in the Final EIR.

Proposed Modifications	Impact NOISE						Discussion
	-1	-2	-3	-4	-5	-6	
Additional Pole Types	NA	NA	NA	NA	NA	NA	The use of additional pole types for the Proposed Modifications would not result in changes to noise impacts, as compared to the Final EIR. Hybrid poles would replace tubular steel poles or light-weight steel poles (LWSPs) in four locations along the approved alignment. The hybrid poles would be installed using similar construction methods as would be used to install the approved poles; therefore, construction noise emissions would not change. Guy poles would be installed across from the approved LWSPs, as necessary. The construction equipment used to install these poles, and thus the resulting noise emissions, would be the same as those described in the Final EIR. As a result, there would be no change in the impact discussed in the Final EIR.
Modified Conductor Configuration	NA	NA	NA	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to noise impacts as compared to the Final EIR. The modified conductor configuration would occur along the same poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using the same construction methods described in the Final EIR.
Access Road Design Changes	NA	NA	NA	NA	NA	NA	Access road design changes associated with the Proposed Modifications would not result in changes to noise impacts as compared to the Final EIR. The construction equipment used to change the access road design, and thus the resulting noise emissions, would be the similar or the same as the construction equipment described in the Final EIR. As a result, there would be no change in the impact discussed in the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications							
Staging Areas	NA	NA	NA	NA	NA	NA	The use of new staging areas for the Proposed Modifications would not result in changes to noise impacts as compared to the Final EIR. The construction equipment used for the staging areas, and thus the resulting noise emissions, would be the similar or the same as the construction equipment described in the Final EIR. As a result, there would be no change in the impact discussed in the Final EIR.

Proposed Modifications	Impact NOISE						Discussion
	-1	-2	-3	-4	-5	-6	
Stringing Setup Areas	NA	NA	NA	NA	NA	NA	Stringing set-up areas associated with the Proposed Modifications would not result in changes to noise impacts as compared to the Final EIR. The construction equipment used for the stringing setup areas, and thus the resulting noise emissions, would be the similar or the same as the construction equipment described in the Final EIR. As a result, there would be no change in the impact discussed in the Final EIR.
Helicopter Operation Yards	✓	NA	NA	✓	NA	NA	Use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact NOISE-1 and -4 as compared to the Final EIR, as analyzed in *Section 3.10.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Guard Structure Installation	NA	NA	NA	NA	NA	NA	The use of guard structures for the Proposed Modifications would not result in changes to noise impacts as compared to the Final EIR. The construction equipment used for the guard structure installation, and thus the resulting noise emissions, would be the similar or the same as the construction equipment described in the Final EIR. As a result, there would be no change in the impact discussed in the Final EIR.
Shoofly Installation	NA	NA	NA	NA	NA	NA	The use of a shoofly for the Proposed Modifications would not result in changes to noise impacts as compared to the Final EIR. The construction equipment used for the shoofly installation, and thus the resulting noise emissions, would be the similar or the same as the construction equipment described in the Final EIR. As a result, there would be no change in the impact discussed in the Final EIR.
Blasting/ Fracturing	✓	✓	NA	✓	NA	NA	The use of blasting/fracturing for the Proposed Modifications has the potential to affect Impact NOISE-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.10.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact NOISE						Discussion
	-1	-2	-3	-4	-5	-6	
Helicopter Use	✓	NA	NA	✓	NA	NA	The use of helicopters for the Proposed Modifications has the potential to affect Impact NOISE-1 and -4 as compared to the Final EIR, as analyzed in *Section 3.10.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Telecommunications System Modifications							
Underground Installation	✓	✓	NA	✓	NA	NA	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact NOISE-1, -2, and -4 as compared to the Final EIR, as analyzed in *Section 3.10.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Overhead Installation	NA	NA	NA	NA	NA	NA	Overhead installation of the telecommunications system associated with the Proposed Modifications would not result in changes to noise impacts as compared to the Final EIR. The construction equipment used for the overhead installation of the telecommunications system, and thus the resulting noise emissions, would be the similar or the same as the construction equipment described in the Final EIR. As a result, there would be no change in the impact discussed in the Final EIR.

Note: NA = Not Applicable

3.10.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts from noise as identified in the Final EIR, and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.10.2.3 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications.

Impact NOISE-1: Noise Levels that Exceed Standards

The Final EIR indicated that the potential for noise impacts would be related to the proposed construction activities, their proximity to sensitive receptors, and the surrounding land uses. It also concluded that residents along the subtransmission line would be subjected to intermittent construction noise levels that would exceed general plan noise policies in Riverside County and the cities of Perris and Lake Elsinore. The Final EIR determined that with the implementation of APMs NOISE-SCE-1 through NOISE-SCE-6 and MM NOISE-1a, impacts would be reduced to a less-than-significant level (Class II).

The Proposed Modifications include the realignment of portions of Valley-Ivyglen 115 kV Subtransmission Line Segments 5, 7, and 8. The realignment of these portions of the subtransmission line would not change the construction methods or equipment requirements for the installation of these facilities. In addition, the realigned portions of the subtransmission line would be located in similar non-residential land uses as the Approved Project and would not locate construction activities in closer proximity to sensitive receptors. As a result, the potential noise impacts from the proposed segment realignments are substantially similar to impacts identified in the Final EIR and a revised version of MM NOISE-1a would continue to be implemented. As described in *Chapter 2 – Proposed Modifications*, this revised mitigation measure stipulates that SCE would obtain an exception from the Riverside County Director of Building and Safety if the California Independent System Operators and/or California Department of Transportation require that conductor stringing over freeways or highways occur outside Riverside County's allowable work hours. By requiring further consultation with Riverside County in the event of evening construction, this measure further ensures adherence to the applicable noise standards and would not affect the significance assessment in the Final EIR. With the implementation of this measure the noise impacts would remain less than significant and consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

The Proposed Modifications include the underground installation of portions of the Valley-Ivyglen 115 kV Subtransmission Line and telecommunications system, which would require different construction techniques and equipment than what was described in the Final EIR. More specifically, installation of underground facilities could require the use of jackhammers and concrete saws. Other construction equipment would be similar to the construction equipment analyzed in the Final EIR. The Federal Highway Administration's (FHWA) Roadway

Construction Noise Model (RCNM) has been used to calculate the maximum (Lmax) and hourly averaged equivalent (Leq) noise levels in A-weighted decibels (dBA) of this equipment. The results of these calculations are shown in *Table 3.10-3: Summary of Underground Construction Equipment Noise Calculations*.

Table 3.10-3: Summary of Underground Construction Equipment Noise Calculations

Underground Construction Equipment	Usage (%)	Lmax/Leq (dBA)		
		At 50 feet	At 100 feet	At 1,000 feet
Concrete Saw	20	90/83	84/77	64/57
Jack Hammer	20	89/82	83/76	63/56

Riverside County and the cities of Lake Elsinore and Perris provide exemptions for noise related to construction activities under certain conditions. These conditions are typically related to the time of day the noise is being generated; however, they can be related to the proximity of the construction activities to adjacent noise sensitive receptors. Construction would be limited to the allowable times within these jurisdictions. In the event that construction activities are necessary on days or hours outside of what is specified by ordinance, SCE would obtain variances as necessary from appropriate jurisdictions where the work would take place. Impacts associated with underground installation of portions of the Valley-Ivyglen 115 kV Subtransmission Line and the telecommunication system would not result in the exposure of people to or generation of noise levels in excess of standards established in the local general plan or noise ordinance. APM NOISE-SCE-1 would continue to be implemented; however, it has been revised to stipulate that SCE would obtain variances the applicable jurisdictional agencies if the California Independent System Operators and/or California Department of Transportation require that conductor stringing over freeways or highways occur after 7:00 p.m. or on a Sunday. This revision would facilitate further coordination with the applicable agencies and ensure compliance with standards. As such, this revision to APM NOISE-SCE-1 would not affect the impact assessment in the Final EIR. With the implementation of this revised APM and revised MM NOISE-1a, impacts would remain consistent with the Final EIR's Class II (Less-than-Significant after Mitigation) determination.

The Proposed Modifications include the use of blasting or fracturing at some locations where rock is present. Prior to blasting, distances to any receptors in the area would be assessed to ensure that the blast would be engineered to be safe and effective. Blasting generally consists of a dull thud, rather than as a loud explosion. The blasting contractor would be required to notify residents, utilities, or others potentially affected by blasting operations in advance and limit the blasting to specific areas to prevent damage to existing structures, as described in NOISE-SCE-5.

The FHWA RCNM has been used to calculate the blasting-generated Lmax and hourly Leq noise levels at several distances. The results of these calculations are shown in *Table 3.10-4: Summary of Blasting Noise Calculations*.

Table 3.10-4: Summary of Blasting Noise Calculations

Construction Activity	Usage (%)	Lmax/Leq (dBA)				
		At 50 feet	At 100 feet	At 1,000 feet	At 2,000 feet	At 4,000 feet
Blasting	1	94/74	88/68	68/48	62/42	56/36

Although most blasting operations are not expected to be used in the immediate vicinity of residences and structures, a few blasting locations could be necessary along Segment 2. If required, blasting at these locations could be located approximately 65 feet from existing residences. As indicated in *Table 3.10-4: Summary of Blasting Noise Calculations*, blasting noise levels at 50-foot distances are expected to generate a maximum noise level of 94 dBA and an hourly averaged equivalent noise level of 74 dBA. However, the blasting activities would occur for only short periods of time at any given location, and would be limited to daytime hours only (as defined by the applicable jurisdiction in which such activities would occur).

As described previously, Riverside County and the cities of Lake Elsinore and Perris provide exemptions for noise related to construction activities under certain conditions. These conditions can be related to the proximity of the construction activities to adjacent noise sensitive receptors. In the event that construction activities are necessary on days or hours outside of what is specified by ordinance, SCE would obtain variances as necessary from appropriate jurisdictions where the work would take place. Consequently, impacts associated with blasting and fracturing would not result in the exposure of people to or generation of noise levels in excess of standards established in the local general plan or noise ordinance. Considering the limited duration and frequency of construction blasting activities and the city and County ordinances, impacts would remain less than significant with the implementation of revised APM NOISE-SCE-1 and revised MM NOISE-1a, and would remain consistent with the Final EIR's Class II (Less-than-Significant after Mitigation) determination.

The Proposed Modifications also include the use of helicopters to support construction activities in areas where ground access is limited or system outage constraints are a factor. Helicopter activities may include transportation of construction workers, delivery of equipment and materials to structure sites, structure placement, hardware installation, and conductor and/or optical ground wire stringing operations. Helicopters could be used in other areas to facilitate construction, dependent upon recommendations by the installation contractor. Helicopter operations would typically be limited to:

- helicopter operation yards,
- material yards, and
- locations in close proximity to conductor pulling, tensioning, and splice sites, including locations in previously disturbed areas near construction sites.

In addition, helicopters may need to land within the subtransmission line's right-of-way, which may include landing on access or spur roads. For safety and security reasons, it is also assumed

that helicopters and their associated support vehicles and equipment may be based at a local airport or SCE Chino Air Operations Facility at night or on off-days.

Generally, heavy-duty helicopters are used during construction in remote locations. These locations are less likely to be near populated areas. Available data indicates that the sound exposure level (SEL) from the overflight of one heavy-duty helicopter flying at an elevation of 1,000 feet would likely be in the range of 85 dBA to 93 dBA. This corresponds to an hourly Leq of 49 dBA to 57 dBA at an elevation of 1,000 feet. Light-duty helicopters may be used during construction and typically generate an SEL of 80 dBA to 85 dBA for an overflight at an elevation of 1,000 feet. This corresponds to an hourly Leq of 44 dBA to 49 dBA at an elevation of 1,000 feet. Because helicopter operations would be limited in duration at any given location and would be restricted to daytime working hours with the implementation of revised MM NOISE-1a, impacts from helicopter operations would be considered less than significant. As a result, this modification would be consistent with the Final EIR's Class II assessment (Less than Significant after Mitigation). Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact NOISE-1 as compared to the Final EIR.

Impact NOISE-2: Excessive Ground-borne Vibrations or Ground-borne Noise Levels

The Final EIR concluded that construction of the approved subtransmission line had the potential to impact any receptors located within 50 feet of the approved pole locations. Because no residences would be located within 50 feet of poles, impacts would be less than significant (Class III).

The realignment of portions of the Valley-Ivyglen 115 kV Subtransmission Line would occur in non-residential areas. Therefore, no new sensitive noise receptors would be exposed to the Proposed Modifications' construction activities and impacts would remain less than significant and consistent with the Final EIR's Class III (Less-than-Significant) assessment.

As discussed previously, the main construction equipment difference due to the underground installation of portions of the Valley-Ivyglen 115 kV Subtransmission Line segments and portions of the telecommunications system would be the use of jackhammers, concrete saws, and backhoes. According to construction equipment vibration guidelines provided by the Federal Transit Administration (FTA), the vibration level for a bucket truck would be approximately 86 VdB[1] at a distance of 25 feet, the vibration level of large bulldozer or backhoe would be approximately 87 VdB at a distance of 25 feet, and the vibration level of a jackhammer would be approximately 79 VdB at a distance of 25 feet. Consequently, the ground-borne vibration and noise levels during underground installation of portions of the subtransmission line and the telecommunications system would be similar to the levels anticipated during the aboveground installation. Therefore, impacts would remain less than significant and consistent with the Final EIR's Class III (Less-than-Significant) assessment.

[1] VdB-unit = RMS velocity in decibels re one micro-inch/second.

Ground-borne vibration levels from blasting diminish quickly as they travel over distance through the ground. Because most of the blasting is expected outside of the immediate vicinity of residences and structures, the ground-borne vibration impacts associated with the Proposed Modifications would not have significant ground-borne vibration and noise impacts and would be consistent with the Final EIR's Class III (Less-than-Significant) assessment.

The Proposed Modifications' use of helicopters to support construction activities in areas where ground access is limited is not expected to generate any significant ground-borne vibration or noise levels, and the ground-borne vibration impacts from the Proposed Modifications' helicopter use would not have significant ground-borne vibration and noise impacts (Class III). Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact NOISE-2 as compared to the Final EIR.

Impact NOISE-3: Permanently Increase Ambient Noise Levels in the Project Vicinity

The Proposed Modifications would not change the anticipated corona noise levels from the operation of the subtransmission line. Because the overhead portion of the line would be supported on taller poles, the noise levels at ground level may decrease slightly when compared to the design that was approved in the Final EIR. As a result, impacts would be less than significant and considered consistent with the Final EIR's Class III (Less-than-Significant) assessment. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact NOISE-3 as compared to the Final EIR.

Impact NOISE-4: Substantial Temporary or Periodic Increase in Ambient Noise Levels in the Project Vicinity

As described previously in response to Impact NOISE-1, the Final EIR concluded that the temporary ambient noise increases associated with construction would be less than significant with the implementation of APMs NOISE-SCE-1 through NOISE-SCE-6 and MM NOISE-1a. As a result, Impact NOISE-4 was considered Class II (Less than Significant after Mitigation).

With the exception of blasting and helicopter use, the Proposed Modifications would not substantially change in noise levels described in the Final EIR. SCE would continue to implement APMs NOISE-SCE-1 through NOISE-SCE-6 and MM NOISE-1a, as revised in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications*, to further reduce noise exposure to sensitive receptors. As a result, impacts would be less than significant and considered consistent with the Final EIR's Class II (Less-than-Significant after Mitigation) assessment.

As described previously, helicopter use would occur for short periods of time at each required location, and would be limited to daytime working hours only; therefore, with the implementation of revised MM NOISE-1a, the noise impacts from helicopter use would be less than significant and consistent with the Final EIR's Class II (Less-than-Significant after Mitigation) assessment.

Blasting would not be expected in the immediate vicinity of residences and structures, although a few blasting locations proposed along Segment 2 may be approximately 65 feet from existing residences. As mentioned previously, blasting noise levels at a distance of 50 feet are expected to generate a Lmax noise level of 94 dBA and an hourly Leq noise level of 74 dBA. The FTA has identified a daytime hourly Leq level of 90 dBA as a noise level where adverse community reaction could occur. Therefore, given that the hourly average equivalent noise level is expected to be 74 dBA at 50 feet, the temporary increase is not expected to cause a substantial nuisance to nearby residences. Further, blasting would be limited in duration, occurring for short periods of time at any given location, and would be limited to daytime hours only. Considering the limited duration and frequency of construction blasting activities and the city and County ordinances, impacts would remain less than significant with the implementation of APM NOISE-SCE-1 and MM NOISE-1a, as revised in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Proposed Modifications*, and consistent with the Final EIR's Class II (Less-than-Significant after Mitigation) assessment. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact NOISE-4 as compared to the Final EIR.

Impact NOISE-5: Impacts to Construction Workers from Airport and Airstrip Noise

The Final EIR concluded that the Approved Project is not located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would not expose people residing or working in the area to excessive noise levels. As a result, no significant impacts would occur and impacts were classified as Class III (Less than Significant).

Airport data from the Federal Aviation Administration indicates that Perris Valley Airport is open to the public and is located approximately 1.5 miles north of Segment 1 of the Valley-Ivyglen 115 kV Subtransmission Line. Construction activities in the vicinity of the airport would be temporary and short term, lasting approximately one to two days per pole, and the noise emissions from the construction equipment would be the dominant noise source in the area. As a result, people working along Segment 1 would not be exposed to excessive noise levels due to airport noise, no impact would occur, and the Proposed Modifications would remain consistent with the Final EIR's Class III (Less-than-Significant) assessment. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact NOISE-5 as compared to the Final EIR.

Impact NOISE-6: Impacts to Residents in the Vicinity of a Private Airstrip

The Final EIR indicated that the Approved Project would not be in the vicinity of a private airstrip; therefore, there would be no impact (Class III). The closest private airstrip to the Proposed Modifications is Skylar Field Airport, located approximately 4.3 miles southwest of Segment 4. Due to the distance from this airport, the Proposed Modifications would not expose people residing or working during construction or operation to excessive noise levels attributable to air traffic from this facility. Consequently, there would be no impact and the Proposed Modifications would remain consistent with the Final EIR's Class III (Less-than-Significant) assessment. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact NOISE-6 as compared to the Final EIR.

3.10.2.3 Additional Evaluation

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.10.3 Summary

As indicated in *Table 3.10-5: Significance of Impact Changes – Noise*, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

Table 3.10-5: Significance of Impact Changes – Noise

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[2]
Impact NOISE-1: Noise Levels that Exceed Standard	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM NOISE-SCE-1 APM NOISE-SCE-2 APM NOISE-SCE-3 APM NOISE-SCE-4 APM NOISE-SCE-5 APM NOISE-SCE-6 MM NOISE-1a	APM NOISE-SCE-1 (revised) APM NOISE-SCE-2 APM NOISE-SCE-3 APM NOISE-SCE-4 APM NOISE-SCE-5 APM NOISE-SCE-6 MM NOISE-1a (revised)
Impact NOISE-2: Excessive Ground-borne Vibrations or Ground-borne Noise Levels	Class III (Less than Significant)	Class III (Less than Significant)	APM NOISE-SCE-1 APM NOISE-SCE-3 APM NOISE-SCE-5	APM NOISE-SCE-1 (revised) APM NOISE-SCE-3 APM NOISE-SCE-5
Impact NOISE-3: Permanently Increase Ambient Noise Levels in the Project Vicinity	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact NOISE-4: Substantial Temporary or Periodic Increase in Ambient Noise Levels in the Project Vicinity	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM NOISE-SCE-1 APM NOISE-SCE-2 APM NOISE-SCE-3 APM NOISE-SCE-4 APM NOISE-SCE-5 APM NOISE-SCE-6 MM NOISE-1a	APM NOISE-SCE-1 (revised) APM NOISE-SCE-2 APM NOISE-SCE-3 APM NOISE-SCE-4 APM NOISE-SCE-5 APM NOISE-SCE-6 MM NOISE-1a (revised)
Impact NOISE-5: Impacts to Construction Workers from Airport and Airstrip Noise	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact NOISE-6: Impacts to Residents in the Vicinity of a Private Airstrip	Class III (Less than Significant)	Class III (Less than Significant)	None	None

Source: CPUC, 2010

[2] Refer to *Chapter 2 – Proposed Modifications* for details on the revised measures.

3.10.4 References

CPUC. 2009. Southern California Edison Valley-Ivyglen Subtransmission Line and Fogarty Substation Project Draft Environmental Impact Report. Online. http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/DEIR/DEIR_Index.htm. Site visited August 7, 2012.

CPUC. 2010. Southern California Edison Valley-Ivyglen Subtransmission Line and Fogarty Substation Project Final Environmental Impact Report. Online. http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/FEIR/FEIR_Index.htm. Site visited August 7, 2012.

FTA. 2006. Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06), May 2006.

Riverside County Code of Ordinances. Ordinance No. 847. Online. http://www.clerkoftheboard.co.riverside.ca.us/ords/800/847.pdf. Site visited May 24, 2012.

United States Department of Transportation. *FHWA Roadway Construction Noise Model User's Guide*. 2006a.

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3.11 TRANSPORTATION AND TRAFFIC

This section summarizes the impacts to transportation and traffic identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to transportation and traffic, and analyzes the potential effects of the Proposed Modifications on transportation and traffic. As discussed in the subsections that follow, the Proposed Modifications would not result in any new significant environmental impacts, or substantially increase the severity of previously identified significant impacts, for transportation and traffic as identified in the Final EIR.

3.11.1 Summary of Final EIR

The Final EIR determined that impacts to transportation and traffic would be less than significant after mitigation. *Table 3.11-1: Summary of Final EIR – Transportation and Traffic* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for transportation and traffic associated with the Approved Project.

Table 3.11-1: Summary of Final EIR – Transportation and Traffic

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact TRANS-1: Traffic and Level of Service. The Final EIR determined that construction of the Approved Project would result in a temporary, minor increase in traffic volumes on the regional and local roadways that provide access to the construction zones.	Class III (Less than Significant)	TRANS-APM 1 TRANS-APM 3 TRANS-APM 4
Impact TRANS-2: Roadway Closure. The Final EIR determined that construction of the Approved Project could result in roadway closures at locations where the construction activities would be located within the rights-of-way (ROWs) of public streets and highways.	Class III (Less than Significant)	TRANS-APM 2
Impact TRANS-3: Air Traffic. The Final EIR determined that the Approved Project would not result in a change in air traffic levels, although wires can present an aviation hazard for low-flying United States Forest Service aircraft.	Class III (Less than Significant)	None
Impact TRANS-4: Design Hazards. The Final EIR determined that the Approved Project would not require the construction of publicly accessible roads that would present a substantially hazardous design feature.	Class III (Less than Significant)	None
Impact TRANS-5: Emergency Response. The Final EIR determined that construction activities could lengthen the response time required for emergency vehicles passing through the construction zone.	Class III (Less than Significant)	None
Impact TRANS-6: Parking. The Final EIR determined that the Approved Project would not cause significant impacts to parking along the Approved Project route.	Class III (Less than Significant)	TRANS-APM 5
Impaction TRANS-7: Pedestrians and Bicycles. The Final EIR determined that pedestrian and bicycle circulation could be affected by construction activities where pedestrians and bicyclists would be unable to pass through the construction zone.	Class III (Less than Significant)	None
Impact TRANS-8: Damage to Roadways. The Final EIR determined that heavy trucks and other equipment used during construction activities for the Approved Project could potentially cause physical damage and/or deterioration of roadway surfaces.	Class II (Less than Significant after Mitigation)	MM TRANS-8a

Source: California Public Utilities Commission (CPUC), 2010

3.11.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on transportation and traffic from the Proposed Modifications.

3.11.2.1 Methodology

Potential impacts to transportation and traffic from the construction of each Proposed Modification were determined based on an assessment of whether the modification would cause traffic delays or road closures that would affect the public or emergency vehicle access, create a hazard to drivers, or impact alternative transportation methods. The methodology used for this analysis is consistent with the methodology used for the Final EIR. *Table 3.11-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Transportation and Traffic* summarizes the significance level of impacts associated with the Proposed Modification and provides a comparison to applicable impacts from the Final EIR.

Table 3.11-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Transportation and Traffic

Proposed Modifications	Impact TRANS									Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	-9	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications										
Segment Realignment	✓	✓	NA	NA	✓	NA	✓	NA	✓	Segment realignment associated with the Proposed Modifications has the potential to affect Impact TRANS-1, -2, -5, -7, and -9 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	✓	NA	NA	✓	NA	✓	✓	✓	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact TRANS-1, -2, -5, -7, -8, and -9 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Pole Span Length/Pole Height/ Number	✓	NA	✓	✓	✓	NA	✓	NA	NA	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact TRANS-1, -3, -4, -5, and -7 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact TRANS									Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	-9	
Additional Pole Types	NA	NA	NA	NA	NA	NA	NA	NA	NA	The use of additional pole types for the Proposed Modifications would not result in changes to transportation and traffic impacts, as compared to the Final EIR. Hybrid poles would replace tubular steel poles (TSPs) or light-weight steel poles (LWSPs) in four locations along the approved alignment. The hybrid poles would be installed using similar construction methods as would be used to install the approved poles. Guy poles would be installed across from the approved LWSP poles. The required lane closures associated with the installation of these pole types would be the same as those described in the Final EIR.
Modified Conductor Configuration	NA	NA	NA	NA	NA	NA	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to transportation and traffic impacts as compared to the Final EIR. The modified conductor configuration would occur along the same poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using the same construction methods described in the Final EIR.
Access Road Design Changes	NA	NA	NA	✓	NA	NA	NA	NA	NA	Access road design changes associated with the Proposed Modifications have the potential to change Impact-TRANS-4 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications										
Staging Areas	✓	NA	NA	NA	NA	NA	NA	NA	NA	The use of new staging areas for the Proposed Modifications has the potential to affect Impact TRANS-1 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact TRANS									Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	-9	
String Setup Areas	✓	✓	NA	NA	✓	✓	✓	✓	✓	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact TRANS-1, -2, -5, -6, -7, -8, and -9 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	✓	NA	NA	NA	NA	NA	NA	NA	NA	The use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact TRANS-1 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Guard Structure Installation	✓	✓	NA	NA	✓	NA	✓	NA	✓	The use of guard structures for the Proposed Modifications has the potential to affect Impact TRANS-1, -2, -5, -7, and -9 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Shoofly Installation	✓	✓	NA	NA	✓	NA	✓	NA	NA	The use of a shoofly for the Proposed Modifications has the potential to affect Impacts TRANS-1, -2, -5, and -7 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Blasting/ Fracturing	NA	NA	NA	NA	NA	NA	NA	NA	NA	The use of blasting/fracturing for the Proposed Modifications would not result in changes to transportation and traffic impacts as compared to the Final EIR. The use of blasting would not impact transportation and traffic as this additional construction method would not require temporary road or lane closures and would only occur in areas already analyzed in the Final EIR.

Proposed Modifications	Impact TRANS									Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	-9	
Helicopter Use	NA	NA	✓	NA	NA	NA	NA	NA	NA	The use of helicopters for the Proposed Modifications has the potential to affect Impact TRANS-3 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Telecommunications System Modifications										
Underground Installation	✓	✓	NA	NA	✓	NA	✓	✓	✓	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact TRANS-1, -2, -5, -7, -8, and -9 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Overhead Installation	✓	✓	NA	NA	✓	NA	NA	NA	NA	Overhead installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact TRANS-1, -2, and -5 as compared to the Final EIR, as analyzed in *Section 3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Note: NA = Not Applicable

3.11.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to transportation and traffic as identified in the Final EIR, and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.11.2.3 Additional Evaluation* contains a separate analysis was performed to identify any new impacts associated with the Proposed Modifications.

If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. The additional pole types, modified conductor configuration, stringing setup areas, and blasting/fracturing modifications do not affect transportation and traffic and are not described further, as described in *Table 3.11-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Transportation and Traffic*.

The analysis of transportation and traffic impacts covers the following Proposed Modifications: segment realignments, conversion to underground, modified pole span length/pole height/number, access road design changes, shoofly installation, guard structure installation, and helicopter use along the Valley-Ivyglen 115 kV Subtransmission Line. An impact analysis for the underground portions of the telecommunications facilities is also provided.

Impact TRANS-1: Traffic and Level of Service

The Final EIR indicated that construction of the Approved Project would result in a temporary, minor increase in traffic volumes on roadways due to worker commute trips and equipment deliveries. These impacts were identified in the Final EIR as less than significant (Class III). In addition, implementation of TRANS-APM 1 would reduce these short-term traffic impacts. Therefore, Impact TRANS-1 was identified in the Final EIR as a Class III (Less-than-Significant) impact for the Approved Project.

While unlikely, a maximum of approximately 125 worker daily commute trips would be required if all Approved Project and Proposed Modification components are constructed simultaneously using multiple crews. This worst-case scenario represents an increase of approximately 69 daily trips over the 56 included in the Final EIR. In addition, an average of 10 truck trips per day would be required to deliver materials and equipment to active construction sites. Material deliveries may also be required at the eight new preferred and alternate staging areas that have been proposed. A helicopter crew may also commute to Southern California Edison's (SCE's) Chino Air Operations Facility or to another local airfield of a contractor's choosing.

The major roadways and arterial roads spanned by the proposed subtransmission line route are rated a Level of Service (LOS)[1] A or B, with only a few at level C or below. A rating of LOS A

[1] which is measured by dividing traffic volume by roadway capacity. The resulting number, known as the volume-to-capacity (V/C) ratio, usually ranges from 0 to 1.0. The V/C rating is divided into six categories, A through F, representing conditions ranging from unrestricted traffic flow (A) to extreme traffic congestion (F).

has a V/C ratio between 0 and 0.60 and a rating of LOS B has a V/C ratio between 0.61 and 0.71. As a result, roads spanned by the Proposed Modifications typically operate at a capacity of 70 percent or less. The County of Riverside Transportation Department maintains traffic counts for roadways in the county. The average daily traffic volume for roads along the realigned portion of Segment 5 is estimated to be between 7,500 and 21,000 trips daily. The underground portion of Segment 8, located along Temescal Canyon Road, currently experiences approximately 1,500 trips daily. The vehicle trips associated with the Proposed Modifications represent a small percentage of the traffic volume in the area and would not significantly affect the relative level of traffic on the affected roadways given the temporary nature of the additional traffic. Therefore, roadways in the area have adequate capacity to accommodate the temporary traffic increases associated with the Proposed Modifications. In addition, construction activities would be dispersed throughout the area at different times given the linear nature of the Proposed Modifications. TRANS-APM 1 would require SCE to develop and implement a Traffic Management Plan in consultation with Caltrans, the County of Riverside Transportation Department, the City of Menifee, the City of Perris, and the City of Lake Elsinore to further minimize the effects of construction on traffic. Impacts would be less than significant (Class III), consistent with the Final EIR. Therefore, there would be no new significant impact for the Proposed Modifications or substantially increase the severity of the impact related to Impact TRANS-1 as compared to the Final EIR.

Impact TRANS-2: Roadway Closure

The Final EIR indicated that roadway closures during construction of the Approved Project could result in increased traffic congestion; however, compliance with encroachment permit conditions and TRANS-APM 2—which calls for compliance with best management practices (BMPs) established by the Work Area Protection and Traffic Control Manual if lane closures are required—would ensure that impacts remain at less-than-significant (Class III) levels. The potential impacts to transportation and traffic, as they pertain to road closures required during the construction of the Valley-Ivyglen 115 kV Subtransmission Line and telecommunications system modifications, are discussed in the subsections that follow.

Valley-Ivyglen 115 kV Subtransmission Line

The Proposed Modifications include the realignment of Segments 4, 5, 7, and 8. Three of these realignments—Segments 4, 5, and 8—would require the subtransmission line to be installed along public roadways.

More specifically, Segment 4 would be installed adjacent to Third Street, Pasadena Avenue, Riverside Drive, and Baker Street. Temporary lane closures may be required along Segment 4. Installation of this segment would require temporary lane closures between two and four days during pole installation and/or installation and removal of guard structures. These lane closures would be limited to the areas of active construction (typically one pole at a time), and would last a total of approximately four months.

Segment 5 would be installed adjacent to Lake Street between Nichols Road and Temescal Canyon Road. Segment 5 would then continue along Temescal Canyon Road until reaching Hostettler Road. Installation of this segment would require temporary lane closures between two and four days during pole installation and/or installation and removal of guard structures. These

lane closures would be limited to the areas of active construction (typically one pole at a time), and would last a total of approximately seven months along this approximately 3.8-mile-long segment.

Approximately 0.4 mile of Segment 7 would be installed along Temescal Canyon Road. Installation of this segment would require temporary lane closures between two and four days during pole installation and/or installation and removal of guard structures. These lane closures would be limited to the areas of active construction (typically one pole at a time), and would last a total of approximately three months.

As described in *Chapter 2 – Proposed Modifications*, approximately 1.9 miles of Segment 8 would be realigned and installed adjacent to the northbound lane of Temescal Canyon Road. Because Segment 8 would be installed in an underground configuration, temporary lane closures near construction crews would be required. Lane closures associated with the 1.9-mile-long Segment 8 would be limited to the area surrounding active construction, and are anticipated to last approximately three to four months.

The modified stringing setup areas located adjacent to or within roadways would also require lane closures. Lane closures would be temporary and short term, likely limited to a day at a time during stringing activities. In addition, SCE may use flaggers to control traffic during conductor and telecommunications wire installation activities in locations where guard structures are not used. These delays would last approximately 15 minutes per conductor for a total of up to one hour in some locations.

An encroachment permit typically includes measures that would minimize disruptions associated with lane closures, such as flaggers, warning signs, lights, or barricades. Revised TRANS-APM 2 would also be implemented, which requires the use of BMPs established by the California Joint Utility Traffic Control Manual during lane closures. Since the release of the Final EIR, the Work Area Protection and Traffic Control Manual has been updated and replaced with the California Joint Utility Traffic Control Manual. As a result, TRANS-APM 2 has been revised to reference this latest manual as a source for applicable BMPs. The use of the updated manual would not change the impacts to transportation or traffic, as the updated manual would require similar traffic and safety BMPs to be implemented during construction. Construction activities would be dispersed throughout the subtransmission line alignment at different times given the linear nature of the Proposed Modifications. As a result, impacts to traffic from construction activities would not typically affect the same roadway area for an extended period of the construction schedule. Further, encroachment permits would restrict lane closures to occur during off-peak hours, where necessary. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact TRANS-2 as compared to the Final EIR.

Telecommunications System Modifications

Approximately 1.9 miles of new underground conduit would be installed as part of the Proposed Modifications to accommodate the telecommunications line. Similar to the underground portions of the subtransmission line, the installation of these facilities would require temporary lane closures. These closures would last approximately two months, would be dispersed across the

entire underground telecommunications system alignment, and would require agency coordination through the encroachment permit process. In addition to the encroachment permit process, a Traffic Management Plan would be developed, which would incorporate appropriate measures to minimize disruptions associated with these closures. As a result, impacts would be less than significant (Class III), consistent with the Final EIR's impact assessment. The Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact TRANS-2 as compared to the Final EIR.

Impact TRANS-3: Air Traffic

The Final EIR determined that the Approved Project would not result in a change to air traffic patterns; therefore, no mitigation measures would be required (Class III).

As described in *Section 3.7 Hazards and Public Safety*, Segment 1 is located approximately 1.5 miles south of Perris Valley Airport, a privately owned public-use airport with one runway measuring approximately 5,100 feet long. The subtransmission line route is located within Zone E of the Perris Valley Airport Land Use Compatibility Plan. Proposed pole heights within the vicinity of Perris Valley Airport would not increase from what was analyzed in the Final EIR. The Proposed poles are located within Zone E of the Perris Valley Airport Land Use Compatibility Plan, which specifies obstruction surfaces from the airport. Within this location, no construction activities along the subtransmission line alignment would be allowed at an elevation of more than 1,700 to 1,750 feet above mean sea level (msl).

The maximum elevation along the Proposed Modifications alignment within Zone E is approximately 1,500 feet above msl. The Proposed Modifications include pole heights of no greater than 85 feet in this location. Thus, maximum pole height associated with the Proposed Modifications added to the maximum elevation would not exceed the obstruction surface pursuant to the Perris Valley Airport Land Use Compatibility Plan. Therefore, the Proposed Modifications would be consistent with the Perris Valley Airport Land Use Compatibility Plan.

Code of Federal Regulations (CFR) Title 14, Part 77 states that Federal Aviation Administration (FAA) notification is necessary for construction projects greater than 200 feet in height or projects located within 20,000 feet of a public-use airport that exceeds a 100-to-1 surface ratio from any point on the runway with its longest runway measuring more than 3,200 feet. Segment 1 of the subtransmission line from Valley Substation to the intersection of Ethanac Road and State Route (SR-) 74 is located within approximately 20,000 feet of Perris Valley Airport. However, as the height of the tallest pole installed for the Proposed Modifications is 85 feet in this location, no point of the Proposed Modifications would exceed a 100-to-1 surface ratio, and FAA notification would not be necessary. Therefore, the Proposed Modifications would not obstruct navigable airspace. As a result, the Proposed Modifications would not impact air traffic in the vicinity of Perris Valley Airport, and impacts would remain at a Class III (Less-than Significant) level, consistent with the Final EIR.

Helicopters would be used to support construction activities in areas where access is limited or system outage constraints are a factor. As stated previously, Perris Valley Airport, is the nearest public-use airport and is located approximately 1.5 mile north of the Proposed Modifications. Although the Proposed Modifications are located within the boundaries of the Perris Valley

Airport Land Use Compatibility Plan, the Proposed Modifications would not conflict with the provisions of the plan. The helicopter contractor would coordinate flight patterns with local air traffic control and the FAA in accordance with standard industry practice for helicopter use. SCE would consult with applicable agencies on development of a helicopter use plan, if required. As a result, Impact TRANS-3 would be less than significant and still be considered a Class III (Less-than-Significant) impact. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact TRANS-3 as compared to the Final EIR.

Impact TRANS-4: Design Hazards

The Final EIR indicated that the Approved Project would not require the construction of publicly accessible roads that would present a substantially hazardous design feature, such as sharp curves or dangerous intersections. All Approved Project access roads would be restricted from public access, yet designed to avoid hazardous features for the safety of operation and maintenance crews. Therefore, Impact TRANS-4 was identified in the Final EIR as a Class III (Less-than-Significant) impact for the Approved Project.

Approximately 2.3 miles of existing access roads would be widened and approximately 8.0 miles of new, permanent access roads would be constructed to allow access to certain portions of the Proposed Modifications. Access road modifications have the potential to create additional design hazards where they intersect with public roadways. However, access roads would be designed to allow safe ingress and egress from any public roadways and to accommodate large construction equipment safely. Impact TRANS-4 would still be considered a Class III (Less-than-Significant) impact. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact TRANS-4 as compared to the Final EIR.

Impact TRANS-5: Emergency Response

The Final EIR determined that construction activities would not interfere with emergency response due to the temporary and short-term nature of road and lane closures. Therefore, Impact TRANS-5 was identified in the Final EIR as a Class III (Less-than-Significant) impact.

During construction, a maximum of approximately 125 worker commute trips and an average of 10 truck trips for the deliveries of equipment and materials could be required each day. These additional trips could result in increased traffic congestion and decreased LOS, which could impede emergency access. In addition, SCE may use flaggers to control traffic during conductor and telecommunications wire installation activities in locations where guard structures are not used. These delays would last approximately 15 minutes per conductor for a total of up to one hour in some locations. The modified stringing setup areas located adjacent to roadways would also require lane closures, which would likely be limited to a day at a time during stringing activities. In accordance with TRANS-APM 1, SCE would implement a Traffic Management Plan and would coordinate with local agencies through the encroachment permit process. As a result, emergency response times would not be significantly impacted due to construction vehicle traffic.

The installation of poles and underground facilities would require temporary lane closures. During this time, SCE would implement revised TRANS-APM 2, which requires the implementation of BMPs established by the California Joint Utility Traffic Control Manual during lane closures. Impact TRANS-5 would still be considered a Class III (Less-than-Significant) impact. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact TRANS-5 as compared to the Final EIR.

Impact TRANS-6: Parking

The Final EIR indicated that the Approved Project would not cause significant impacts (Class III) to parking along the Approved Project route due to the rural location of the substations, availability of parking in the cities of Lake Elsinore and Perris, and the implementation of TRANS-APM 5.

Construction of Proposed Modifications associated with the Valley-Ivyglen 115 kV Subtransmission Line and telecommunications system would not require the closure or removal of any public parking facilities. As discussed in the Final EIR, SCE would continue to provide parking for workers at Valley Substation and Ivyglen Substation. Crew members would typically meet and park their vehicles at the proposed staging areas, then disperse to the active construction sites. Construction vehicles would park in the subtransmission line ROW or at the construction sites. In addition, as described in TRANS-APM 3 and TRANS-APM 5, SCE would encourage carpooling and parking in areas that would not have adverse impacts to existing parking availability. Impact TRANS-6 would and still be considered a Class III (Less-than-Significant) impact. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact TRANS-6 as compared to the Final EIR.

Impact TRANS-7: Pedestrians and Bicycles

The Final EIR indicated that pedestrian and bicycle circulation could be affected by construction activities, particularly during pole installation and conductor stringing. However, impacts would be short term and pedestrians and bicyclists would likely be able to take short detours around construction areas. Therefore, impacts would be less than significant (Class III).

Lane closures could impact pedestrian paths and bicycle lanes during construction of the Valley-Ivyglen 115 kV Subtransmission Line and telecommunications system. The subtransmission line spans bikeways along Riverside Drive, runs parallel to bikeways along Lake Street and Temescal Canyon Road. In addition, a portion of the subtransmission line would be installed underground along Temescal Canyon Road. Lane closures would be temporary and short term, likely limited to a day at a time during stringing activities and a day or two during trenching and other underground activities or the installation of TSPs along Lake Street. As described previously, SCE would also obtain required encroachment permits where construction activities would occur within or above the public road ROW. As discussed in the Final EIR, pedestrians and bicyclists would likely be able to take short detours around blocked roads and construction areas during any lane closures. In addition, compliance with revised TRANS-APM 2, which specifies implementation of BMPs established by the California Joint Utility Traffic Control Manual during lane closures, would ensure that impacts remain at a less-than-significant (Class III) level.

As a result, impacts would still be considered a Class III (Less-than-Significant) impact and the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact TRANS-7 as compared to the Final EIR.

Impact TRANS-8: Damage to Roadways

The Final EIR determined that heavy trucks and other equipment used during construction could potentially cause physical damage and/or deterioration of roadway surfaces. However, impacts would be reduced to less-than-significant levels with the implementation of MM TRANS-8a (Class II).

Impacts to roadway surfaces from the Proposed Modifications would be similar to those described in the Final EIR. In addition, roadways and other surfaces adjacent to the underground segments of the subtransmission line and telecommunications facilities could also become damaged during construction activities due to the use of heavy construction equipment. However, if roadways, sidewalks, medians, curbs, shoulders, or other such features are damaged by construction activities, SCE would coordinate and implement repairs, as specified in MM TRANS-8a. As a result, Impact TRANS-8 would be less than significant after mitigation (Class II) and the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact TRANS-8 as compared to the Final EIR.

3.11.2.3 Additional Evaluation

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and one additional topic required evaluation, which is discussed in the subsection that follows.

Impact TRANS-9: Bus Routes

Lane closures could also impact additional types of public transit facilities, such as bus routes. The subtransmission line spans Riverside Transit Agency Bus Route 206 along Interstate (I-) 15, Bus Route 22 along SR-74, Bus Route 7 along Collier Avenue and Riverside Drive, and spans Bus Routes 74, 208, and 27 along I-215. Lane closures would be temporary and short term (typically lasting a few days in each stretch of the road) and would be conducted during off-peak hours where feasible, in accordance with encroachment permits. The Proposed Modifications would not require the installation of underground facilities along any bus routes. As a result, no significant delays to bus routes are expected during this work. Construction would generally occur within existing utility corridors and would not involve any activities that would conflict with transportation policies, plans, or programs. In addition, TRANS-APM 2—which specifies implementation of BMPs established by the California Joint Utility Traffic Control Manual during lane closures—would be implemented. Impacts would be less than significant (Class III). Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact TRANS-9.

3.11.3 Summary

As indicated in *Table 3.11-3: Significance of Impact Changes – Transportation and Traffic*, the Proposed Modifications would not result in any new significant environmental impacts, or

substantially increase the severity of previously identified significant impacts, for transportation and traffic as identified in the Final EIR.

Table 3.11-3: Significance of Impact Changes – Transportation and Traffic

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[2]
Impact TRANS-1: Traffic and Level of Service	Class III (Less than Significant)	Class III (Less than Significant)	TRANS-APM 1	TRANS-APM 1 TRANS-APM 3 TRANS-APM 4
Impact TRANS-2: Roadway Closure	Class III (Less than Significant)	Class III (Less than Significant)	TRANS-APM 2	TRANS-APM 2 (revised)
Impact TRANS-3: Air Traffic	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact TRANS-4: Design Hazards	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact TRANS-5: Emergency Response	Class III (Less than Significant)	Class III (Less than Significant)	None	TRANS-APM 2 (revised)
Impact TRANS-6: Parking	Class III (Less than Significant)	Class III (Less than Significant)	TRANS-APM 5	TRANS-APM 5
Impaction TRANS-7: Pedestrians and Bicycles	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact TRANS-8: Damage to Roadways	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM TRANS-8a	MM TRANS-8a
Impact TRANS-9: Bus Routes	Not Addressed	Class III (Less than Significant)	Not Addressed	TRANS-APM 2 (revised)

Source: CPUC, 2010

[2] Refer to *Chapter 2 – Proposed Project Modifications* for details on the revised measures.

3.11.4 References

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3.12 PUBLIC SERVICES AND UTILITIES

This section summarizes the impacts to public services and utilities identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to public services and utilities, and analyzes the potential effects of the Proposed Modifications on public services and utilities. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

3.12.1 Summary of Final EIR

The Final EIR determined that impacts to public services and utilities would be less than significant after mitigation. *Table 3.12-1: Summary of Final EIR – Public Services and Utilities* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for public services and utilities associated with the Approved Project.

Table 3.12-1: Summary of Final EIR – Public Services and Utilities

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact PUB-1: Impact on and Demand for Public Services. The Final EIR determined that construction and operation of the Approved Project would not significantly affect service ratios, response times, or other objectives for public services in the area.	Class III (Less than Significant)	None
Impact PUB-2: Wastewater Treatment Requirements. The Final EIR determined that the Approved Project would generate minor amounts of wastewater, but these levels would not exceed local water treatment requirements.	Class II (Less than Significant after Mitigation)	APM HYDRO-Southern California Edison (SCE)-1 MM HYD-1a
Impact PUB-3: Water and Wastewater Treatment Facilities. The Final EIR determined that no new or expanded water, water entitlements, or wastewater treatment facilities would be required for the Approved Project.	Class III (Less than Significant)	None
Impact PUB-4: Storm Water Drainage Facilities. The Final EIR determined that the Approved Project would not require the construction of new storm water drainage facilities, nor would it require the expansion of existing facilities.	Class III (Less than Significant)	None
Impact PUB-5: Water Supply. The Final EIR determined that construction and operation of the Approved Project would not require large amounts of water.	Class III (Less than Significant)	None
Impact PUB-6: Wastewater Treatment Capacity. The Final EIR determined that the Approved Project would not result in a negative determination by the wastewater treatment provider as each wastewater treatment provider, regardless of their jurisdiction, has sufficient capacity to meet the demands of the Approved Project.	Class III (Less than Significant)	None
Impact PUB-7: Landfill and Waste Disposal Needs. The Final EIR determined that during construction, the Approved Project would generate minor amounts of solid waste, which would be disposed of appropriately in the Badlands, El Sobrante, and Lamb Canyon landfills.	Class III (Less than Significant)	None
Impact PUB-8: Solid Waste Statutes and Regulations. The Final EIR determined that construction and operation of the Approved Project would comply with federal, state, and local statutes and regulations related to solid waste.	Class III (Less than Significant)	None

Source: California Public Utilities Commission (CPUC), 2010

3.12.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on public services and utilities from the Proposed Modifications.

3.12.2.1 Methodology

Potential impacts to public services and utilities for each Proposed Modification were determined based on an assessment of whether the modifications would cause existing facilities to exceed capacity or require the construction of new public service or utility facilities. The methodology used for this analysis is consistent with the methodology used for the Final EIR. *Table 3.12-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Public Services and Utilities* summarizes the significance level of impacts associated with the Proposed Modifications and provides a comparison to applicable impacts from the Final EIR.

Table 3.12-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Public Services and Utilities

Proposed Modifications	Impact PUB								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications									
Segment Realignment	✓	NA	NA	NA	NA	NA	NA	NA	Segment realignment associated with the Proposed Modifications has the potential to affect Impact PUB-1 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	✓	✓	✓	✓	✓	✓	✓	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact PUB-1, -2, -3, -4, -5, -6, -7, and -8 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Pole Span Length/Pole Height/ Number	✓	✓	✓	✓	✓	✓	✓	✓	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact PUB-1, -2, -3, -4, -5, -6, -7, and -8 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact PUB								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Additional Pole Types	NA	NA	NA	NA	NA	NA	NA	NA	The use of additional pole types for the Proposed Modifications would not result in changes to public service and utilities impacts as compared to the Final EIR. Hybrid poles would replace tubular steel poles (TSPs) or light-weight steel poles (LWSPs) in four locations along the existing alignment. The hybrid poles would be installed using similar construction methods as would be used to install the approved poles. Guy poles would be installed across from the approved LWSPs. Potential impacts from the additional guy poles are addressed in the analysis associated with modified span length/pole height/number of poles in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.
Modified Conductor Configuration	NA	NA	NA	NA	NA	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to public services and utilities impacts as compared to the Final EIR. The modified conductor configuration would occur along poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using the same construction methods described in the Final EIR. Potential impacts from the subtransmission line installed in new, non-approved locations are addressed in the analysis associated with segment realignments in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.
Access Road Design Changes	✓	NA	NA	✓	✓	NA	NA	NA	Access road design changes associated with the Proposed Modifications have the potential to affect Impact PUB-1, -4, and -5 as compared to the Final EIR, as analyzed Potential impacts from this Proposed Modification are discussed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact PUB								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications									
Staging Areas	✓	NA	NA	NA	NA	NA	NA	NA	The use of new staging areas for the Proposed Modifications has the potential to affect Impact PUB-1 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Stringing Setup Areas	✓	NA	NA	NA	NA	NA	NA	NA	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact PUB-1 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	✓	NA	NA	NA	NA	NA	NA	NA	The use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact PUB-1 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Guard Structure Installation	✓	NA	NA	✓	✓	NA	NA	NA	The use of guard structures for the Proposed Modifications has the potential to affect Impact PUB-1, -4, and -5 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Shoofly Installation	NA	NA	NA	✓	✓	NA	NA	NA	The use of a shoofly for the Proposed Modifications has the potential to affect Impact PUB-4 and -5 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact PUB								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Blasting/ Fracturing	NA	NA	NA	NA	✓	NA	NA	NA	The use of blasting/fracturing has the potential to affect Impact PUB-5 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Use	NA	NA	NA	NA	NA	NA	NA	NA	The use of helicopters for the Proposed Modifications would not result in changes to public services and utilities impacts as compared to the Final EIR. Helicopter use would occur along the rights-of-way, helicopter operation yards, staging yards, and stringing setup areas. The use of helicopters would not require the complete closure of lanes or roads that could impact public services. In addition, the use of helicopters would not result in wastewater, storm water, use of water, or waste. Therefore, there are no impacts to public services or utilities that are relevant to helicopter use.
Telecommunications System Modifications									
Underground Installation	✓	✓	✓	✓	✓	NA	✓	✓	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact PUB-1, -2, -3, -4, -5, -7, and -8 as compared to the Final EIR, as analyzed in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact PUB								Discussion
	-1	-2	-3	-4	-5	-6	-7	-8	
Overhead Installation	NA	NA	NA	NA	NA	NA	NA	NA	Overhead installation of the telecommunications system associated with the Proposed Modifications would not result in changes to public services and utilities impacts as compared to the Final EIR. Overhead installation of the telecommunications system would occur on the poles used to support the Valley-Ivyglen 115 kV Subtransmission Line; therefore, impacts associated with this modification are addressed in the analysis associated with segment realignment and modified span length/pole height/number of poles in *Section 3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.

Note: NA = Not Applicable

3.12.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to public services and utilities as identified in the Final EIR, and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.12.2.3 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. The helicopter use modification does not affect public services and utilities and is not described further, as described in *Table 3.12-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Public Services and Utilities*. In addition, because impacts from the modified conductor configuration, additional pole types, and overhead installation of the telecommunications system modifications would be identical to those identified for the segment realignment and/or modified span length/pole height/number of poles along the Valley-Ivyglen 115 kV Subtransmission Line, the analysis of public services and utilities impacts covers the remaining modifications.

Impact PUB-1: Impact on and Demand for Public Services

The Final EIR concluded that because the Approved Project would result in only a minor change in population during the construction phase, impacts to public services would be less than significant. The Final EIR also stated the construction, operation, and maintenance of the Approved Project would not significantly affect service ratios, response times, or objectives for public services. As a result, no MMs were included and there would be no significant impact to or increase demand for public services (Class III).

Fire Protection

The segment realignments would be primarily located along roadways in urban and rural areas that have a low potential for fire. The newly identified work areas and access roads may be located in vegetated areas with a higher potential for fire. As described in *Section 3.7 Hazards and Public Safety*, to minimize the risk of a fire starting during construction, work areas and access roads would be cleared of dry vegetation so that vehicle catalytic converters would not come into contact with dry vegetation and potentially ignite a fire. Though fires are not anticipated due to the urban setting and cleared vegetation, crews would carry portable firefighting equipment at all times to control the spread of a fire should one start. The additional underground subtransmission line and telecommunication conduits that would be installed would typically be located within or along existing roadways. With the implementation of the measures discussed previously, the risk of fire during the installation of underground facilities would be less than significant (Class III).

The Proposed Modifications would not be located along or within any roadways on which fire stations are located. As a result, direct impacts to stations or their access would not be caused by the Proposed Modifications. The closure of lanes on local roads—most of which would be limited in duration—would be expected to cause traffic delays, which may temporarily impact

the response times of emergency vehicles. In order to reduce these potential impacts from slowing response times, SCE would also coordinate road closures with the local jurisdiction through the encroachment permit process prior to construction.

As a result, the need for firefighting services from a local fire protection agency would not change due to the Proposed Modifications when compared to the Final EIR. Thus, impacts would be less than significant and consistent with the Final EIR's assessment of Class III (Less than Significant). Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to fire protection as compared to the Final EIR.

Police Protection

The Proposed Modifications would not require the direct assistance of local law enforcement agencies, though the assistance of state enforcement agencies may be required for stringing activities across state and federal highways. The introduction of additional staging areas during construction would increase the risk of theft or vandalism. To minimize this risk, crews would clean up work areas and store all construction equipment overnight at staging yards. SCE would hire a local security company to provide 24-hour monitoring of the staging areas, which would minimize the need for local law enforcement assistance.

The Proposed Modifications would neither cross nor be constructed along or within any roadways on which police stations are located. As a result, direct impacts to stations or their access would not result from the Proposed Modifications. As described previously for fire protection, traffic delays may result from lane and road closures associated with pole, conductor, and underground conduit installation. In order to reduce these potential impacts to response times, SCE would coordinate road closures with the local jurisdictions through the encroachment permit process prior to construction. The Proposed Modifications would require only minimal assistance from state enforcement agencies during stringing of the conductor across state and federal highway, and would not result in a substantial increase in the temporary demand for or alter the required level of local police services. As a result, impacts to police protection services would be less than significant and consistent with the Final EIR's assessment of Class III (Less than Significant). Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to police protection as compared to the Final EIR.

Hospitals

No hospitals would be directly spanned or located along a road that would be affected by the Proposed Modifications. As a result, there would be no adverse physical impact to a hospital from the changes to the design. While the construction crew requirements would increase due to the increased number of poles and underground construction associated with the Proposed Project, the duration of construction would remain consistent with the Final EIR (24 months). As a result, the local population would not increase significantly and the modifications would not cause a significant increase in demand for hospital services when compared to the Approved Project. Thus, impacts to hospital services would be less than significant and consistent with the Final EIR's assessment of Class III (Less than Significant). Therefore, the Proposed

Modifications would not result in a new significant impact or substantially increase the severity of the impact related to hospitals as compared to the Final EIR.

Schools

Construction personnel associated with the Proposed Modifications would typically be hired locally or commute to the site daily. Therefore, school enrollment would not be affected, and no new schools would be constructed as a result of the Proposed Modifications.

The proposed Chaney alternate staging area is located less than 0.25 mile from Gordon Kiefer School and Ortega High School near the intersection of Chaney Street and West Minthorn Street in Lake Elsinore. In addition, the realigned portion of Segment 5 of the Valley-Ivyglen 115 kV Subtransmission Line and new access road are located approximately 100 feet from the proposed location for Alberhill Ranch Elementary School; however, like the Approved Project, the Proposed Modifications would likely be completed prior to its opening. A new permanent access road along Segment 6 is located within 0.25 mile of Luiseno Elementary School near the intersection of Mountain Road and Cobble Drive, and a portion of the underground telecommunications system and two stringing setup areas are within 0.25 mile of Todd Elementary School near Ivyglen Substation. Both schools are located in unincorporated Riverside County. As described in the Final EIR, construction personnel would typically be hired locally or commute to the site, and school enrollment would not be affected. As a result, impacts to schools would be less than significant and consistent with the Final EIR's assessment of Class III (Less than Significant). Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to schools as compared to the Final EIR.

Parks

The Proposed Modifications would be located directly adjacent to the following two recreational facilities:

- Alberhill Ranch Community Park, located southeast of the intersection of Lake Street and Nichols Road in the City of Lake Elsinore, and
- Jungle Island Paintball & Airsoft Park, located southwest of the intersection of Temescal Canyon Road and Larson Avenue in incorporated Riverside County.

Access to these facilities could be temporarily disrupted due to lane closures during pole installation and/or installation and removal of guard structures. However, the lane closures would be short term, lasting between one and five days for each TSP or guard structure installation. Traffic flow to these areas may also be interrupted in the event that flaggers are used for traffic control during conductor removal/installation activities instead of temporary guard structures. These interruptions would be limited to approximately 15 minutes per conductor during stringing activities. In addition, one proposed stringing site would be located in the Alberhill Ranch Community Park parking lot, though complete park closures would not be required. More information on this closure is provided in *Section 3.8 Recreation* and *Section 3.11 Transportation and Traffic*.

Construction of the Proposed Modifications would not increase local population growth and would not result in the need for new parks or park expansion. In addition, construction of the Proposed Modifications would be relatively short-term; therefore, no long-term reductions to the availability of recreational resources would occur. The construction of new parks or the expansion of existing parks would not be required in order to maintain acceptable service ratios. As a result, no impacts to parks would occur (Class III) and the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to parks as compared to the Final EIR.

Other Public Facilities

Because the Proposed Modifications would not facilitate population growth, there would be no increased demand for libraries and other public facilities. Further, no facilities would be crossed by the Proposed Modifications, nor would the Proposed Modifications be constructed along or within any roadways on which these facilities are located. As a result, there would be no impact to other public facilities (Class III) and the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to other public facilities or to Impact PUB-1 as compared to the Final EIR.

Impact PUB-2: Wastewater Treatment Requirements

The Final EIR concluded that while the Approved Project would generate minor amounts of wastewater, these levels would not exceed local water treatment requirements. With the implementation of HYDRO-SCE-1 and MM HYD-1a, which require the implementation of a Storm Water Pollution Prevention Plan (SWPPP) and review of the SWPPP by the Santa Ana Regional Water Quality Control Board (RWQCB) for compliance with the Santa Ana Water Quality Control Plan prior to initiation of construction, the potential impacts to wastewater treatment requirements were determined to be Class II (Less than Significant after Mitigation).

Valley-Ivyglen 115 kV Subtransmission Line

The process of converting overhead alignments to an underground configuration and increasing the number poles that would be installed as part of the Approved Project would increase the number of construction crew members required to complete construction in the time period specified in the Final EIR. As a result, the use of portable toilets provided for construction crew use would also increase. These Proposed Modifications would increase the total peak number of construction crew members from 56 to approximately 125. Portable toilets used during construction would be maintained by a licensed sanitation contractor and provided in accordance with applicable sanitation regulations established by the Occupational Safety and Health Administration, which generally require one portable toilet for every 10 workers. The licensed sanitation contractor would dispose of the waste at an off-site location in compliance with established RWQCB standards. Therefore, the Proposed Modifications would not require or result in the construction of new water or wastewater treatment facilities.

In order to reduce the potential for impacts, HYDRO-SCE-1 and MM HYD-1a would continue to be implemented, as appropriate. As a result, the additional length of underground line and increased number of poles would be less than significant and consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation). Therefore, the Proposed

Modifications to the Valley-Ivyglen 115 kV Subtransmission Line would not result in a new significant impact or substantially increase the severity of the impact related to Impact PUB-2 as compared to the Final EIR.

Telecommunications System Modifications

As discussed in *Chapter 2 – Proposed Modifications*, the proposed telecommunications system would be installed in one of three configurations. Approximately 20.5 miles of the system would be co-located on the Valley-Ivyglen 115 kV Subtransmission Line poles, approximately 2.5 miles of the system would be installed in existing underground conduits, and the remaining 1.9 miles of the telecommunications system would be installed in new underground conduit. The underground installation of the system is anticipated to last approximately two months. As discussed previously, the expanded construction schedule would require additional portable toilets on site. The waste associated with these facilities would be disposed of at an off-site location in compliance with established RWQCB standards. As a result, construction of the telecommunications facility would not exceed RWQCB wastewater treatment requirements, and the Proposed Modifications would be consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation). Therefore, the Proposed Modifications to the Telecommunications System would not result in a new significant impact or substantially increase the severity of the impact related to Impact PUB-2 as compared to the Final EIR.

Impact PUB-3: Water and Wastewater Treatment Facilities

The Final EIR stated that no new or expanded water, water entitlements, or wastewater treatment facilities would be required for the Approved Project (Class III).

Due to the increased number of poles and the additional underground alignment length, the Proposed Modifications would increase the maximum number of construction crew members on site from approximately 56 to 125. As previously described, portable toilets would be provided for crew members during construction of the Proposed Modifications. The waste would be disposed of offsite in compliance with RWQCB standards and would not require new facilities or the expansion of existing facilities. Water would be drawn from municipal sources for dust control, cleanup, crew member consumption, and hand washing. Construction of the Proposed Modifications would not discharge large volumes of wastewater, nor would it require a significant quantity of water for construction; therefore, there would be no need for the expansion of new water or wastewater treatment facilities. As a result, there would be no impact, which is consistent with the Final EIR's assessment of Class III (Less than Significant). Thus, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact PUB-3 as compared to the Final EIR.

Impact PUB-4: Storm Water Drainage Facilities

The Final EIR included water used for dust suppression and drainage structures installed along access roads as sources for storm water. The Final EIR concluded that the Approved Project would not require the construction of new storm water drainage facilities, nor would it require the expansion of existing facilities (Class III).

The Proposed Modifications would not result in a significant increase in impermeable surfaces that would increase storm water discharge. *Section 3.6 Hydrology and Water Quality* provides a discussion of drainage patterns and flooding. SCE would obtain coverage under the California State Water Resources Control Board (SWRCB) General Permit for Storm Water Discharges Associated with Construction Activity Order No. 2009-0009-DWQ (General Permit). In order to obtain coverage under the permit, SCE would develop and provide a SWPPP to the SWRCB prior to initiating construction activities, in accordance with APM HYDRO-SCE-1. In conjunction with the SWPPP, appropriate best management practices (BMPs), such as the installation of silt fencing and covering of spoil piles, would be developed to minimize impacts associated with storm water runoff. These BMPs would then be implemented and monitored throughout the construction period by a qualified SWPPP practitioner. The Proposed Modifications would cause a minimal increase in storm water and no modifications to the existing drainage facilities or new facilities would be required. As a result, Impact PUB-4 is still considered a Class III (Less than Significant) impact. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact PUB-4 as compared to the Final EIR.

Impact PUB-5: Water Supply

As stated in the Final EIR, construction and operation of the Approved Project would not require large amounts of water; therefore, the effect on the local water supply would be minor and less than significant (Class III).

The Proposed Modifications would draw incidental quantities of water from local sources for dust control, cleanup, crew member consumption, and hand washing. Restroom facilities for construction activities would be portable and would not draw from local supplies. Therefore, the Proposed Modifications would not draw a significant volume of water, and available water supplies would be more than sufficient to serve the Proposed Modification's limited demand. Therefore, impacts would be less than significant and consistent with the Final EIR's assessment of Class III (Less than Significant). As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact PUB-5 as compared to the Final EIR. Additional discussion of water resources in the Proposed Modifications area is included in *Section 3.6 Hydrology and Water Quality*.

Impact PUB-6: Wastewater Treatment Capacity

The Final EIR concluded that the Approved Project would not result in a negative determination by the wastewater treatment provider as each wastewater treatment provider, regardless of their jurisdiction, has sufficient capacity to meet the demands of the Approved Project (Class III).

As discussed previously, waste during construction would be contained in portable toilets and disposed of offsite. Because very little wastewater would be generated by the Proposed Modifications, there would be capacity to serve the projected increase in demand, and as it would be a minor increase, it would not likely challenge any existing commitments. Therefore, the impact would be less than significant and consistent with the Final EIR's assessment of Class III (Less than Significant). As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact PUB-6 as compared to the Final EIR.

Impact PUB-7: Landfill and Waste Disposal Needs

The Final EIR concluded that with the implementation of BMPs, the proper permanent disposal of solid waste would be guaranteed and that the Approved Project would have a less-than-significant impact on local landfills (Class III).

The Proposed Modifications would generate limited quantities of construction waste, much of which can be recycled or salvaged. Waste materials collected by crews would be separated and taken to the staging areas and categorized for final disposal. All non-hazardous waste that cannot be recycled or salvaged would be taken to local landfills. The additional excavated material from installing approximately 10,253 feet of underground subtransmission line—as well as approximately 9,652 feet of underground telecommunication system in new underground conduits—would require the disposal of approximately 5,406 cubic yards of excavated material.[1] The existing solid waste disposal facilities in the area have adequate capacity to accommodate this material. SCE would dispose of the solid waste generated by the Proposed Modifications at the El Sobrante Landfill in Corona and/or Badlands Sanitary Landfill in Moreno Valley. The El Sobrante Landfill has a daily permitted capacity of 16,054 tons and reached less than approximately 0.1 percent of its permitted daily capacity in 2009. Badlands Sanitary Landfill has a daily permitted capacity of 4,000 tons and reached less than 0.1 percent of its permitted daily capacity in 2009. Because local landfills have sufficient capacity and the Proposed Modifications would not generate a high volume of waste, impacts would remain less than significant and consistent with the Final EIR's assessment of Class III (Less than Significant). As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact PUB-7 as compared to the Final EIR.

Impact PUB-8: Solid Waste Statutes and Regulations

The Final EIR concluded that construction and operation of the Approved Project would comply with federal, state, and local statutes and regulations related to solid waste, and the amount of solid waste generated during the operation and maintenance of the Approved Project would be minimal and would not impact landfill capacities (Class III).

SCE currently adheres to and would continue to adhere to all federal, state, and local standards for the disposal of solid waste. During construction of the Proposed Modifications, SCE would dispose of all waste in accordance with published federal, state, or local standards relating to solid and hazardous waste disposal through recycling or transport to an authorized landfill. Thus, the Proposed Modifications would not violate any solid waste statutes or regulations, and there would be no impact, which is consistent with the Final EIR's assessment of Class III (Less than Significant). As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact PUB-8 as compared to the Final EIR.

[1] If final engineering determines that this excavated material is suitable for backfilling the trench excavated for the underground subtransmission and/or telecommunication conduit installation, less than 3,000 cubic yards of waste would be disposed.

3.12.2.3 Additional Evaluation

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.12.3 Summary

As indicated in *Table 3.12-3: Significance of Impact Changes – Public Services and Utilities*, the Proposed Modifications would not significantly increase the severity of effects nor change the determinations of significance on recreational facilities identified in the Final EIR. Therefore, impact significance levels identified in the Final EIR would not change as a result of the Proposed Modifications.

Table 3.12-3: Significance of Impact Changes – Public Services and Utilities

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs
Impact PUB-1: Impact on and Demand for Public Services	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact PUB-2: Wastewater Treatment Requirements	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM HYDRO-SCE-1 MM HYD-1a	APM HYDRO-SCE-1 MM HYD-1a
Impact PUB-3: Water and Wastewater Treatment Facilities	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact PUB-4: Storm Water Drainage Facilities	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact PUB-5: Water Supply	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact PUB-6: Wastewater Treatment Capacity	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact PUB-7: Landfill and Waste Disposal Needs	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact PUB-8: Solid Waste Statutes and Regulations	Class III (Less than Significant)	Class III (Less than Significant)	None	None

Source: CPUC, 2010

3.12.4 References

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3.13 AGRICULTURE

This section summarizes the impacts to agriculture identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to agriculture, and analyzes the potential effects of the Proposed Modifications on agriculture. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

3.13.1 Summary of Final EIR

The Final EIR determined that impacts to agriculture would be less than significant. *Table 3.13-1: Summary of Final EIR – Agriculture* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) from the Final EIR for agriculture associated with the Approved Project.

Table 3.13-1: Summary of Final EIR – Agriculture

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact AG-1: Designated Farmland. The Final EIR determined that the Approved Project would impact approximately 15 acres of designated farmland, which represents approximately 0.03 percent of the designated agricultural lands in Riverside County; therefore, there would be no significant impact on state-designated farmlands.	Class III (Less than Significant)	None
Impact AG-2: Williamson Act Lands. The Final EIR determined that the Approved Project would not cross any agricultural lands currently under Williamson Act contract; therefore, there would be no impact related to existing zoning and Williamson Act lands.	Class III (Less than Significant)	None
Impact AG-3: Other Farmland Considerations. The Final EIR determined that a minor amount of grazing lands would be disturbed by the approved subtransmission line, but there would be no physical barrier to limit the free movement of livestock or farm equipment; therefore, there would be no impact related to conflicts with existing farmland.	Class III (Less than Significant)	None

Source: California Public Utilities Commission (CPUC), 2010

3.13.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on agriculture from the Proposed Modifications.

3.13.2.1 Methodology

Potential impacts to agriculture for each Proposed Modification were determined based on an assessment of whether the modification requires additional disturbance that is located within an agricultural or forestry resource area. The methodology used for this analysis is consistent with the methodology used for the Final EIR. *Table 3.13-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Agriculture* summarizes the significance level

of impacts associated with the Proposed Modifications and provides a comparison to applicable impacts from the Final EIR.

Table 3.13-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Agriculture

Proposed Modifications	Impact AG				Discussion
	-1	-2	-3	-4	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications					
Segment Realignment	✓	✓	✓	✓	Segment realignment associated with the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	✓	✓	✓	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Pole Span Length/ Pole Height/ Number	✓	✓	✓	✓	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Additional Pole Types	✓	✓	✓	✓	The use of additional pole types for the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Conductor Configuration	NA	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in changes to agriculture impacts as compared to the Final EIR. The modified conductor configuration would occur along the same poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using the same construction methods described in the Final EIR.

Proposed Modifications	Impact AG				Discussion
	-1	-2	-3	-4	
Access Road Design Changes	✓	✓	✓	✓	Access road design changes associated with the Proposed Modifications have the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications					
Staging Areas	✓	✓	✓	✓	The use of new staging areas for the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Stringing Setup Areas	✓	✓	✓	✓	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	✓	✓	✓	✓	The use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Guard Structure Installation	✓	✓	✓	✓	The use of guard structures for the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Shoofly Installation	✓	✓	✓	✓	The use of a shoofly for the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact AG				Discussion
	-1	-2	-3	-4	
Blasting/ Fracturing	NA	NA	NA	NA	The use of blasting/fracturing for the Proposed Modifications would not result in changes to agriculture impacts as compared to the Final EIR. Blasting/fracturing would be located along the approved subtransmission line alignment or along the proposed segment realignment. Blasting/fracturing along the approved alignment would not result in additional areas of disturbance beyond those analyzed in the Final EIR. Where blasting/fracturing would occur along the proposed realignments, impacts related to this modification are addressed in the analysis associated with segment realignment in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.
Helicopter Use	✓	✓	✓	✓	The use of helicopters for the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Telecommunications System Modifications					
Underground Installation	✓	✓	✓	✓	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact AG-1, -2, -3, and -4 as compared to the Final EIR, as analyzed in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Overhead Installation	NA	NA	NA	NA	The modifications to the telecommunications system would be collocated with the Valley-Ivyglen 115 kV Subtransmission Line; therefore, the impacts associated with this modification are addressed in the analysis associated with segment realignment and modified pole span length/pole height/number in *Section 3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.

Note: NA = Not Applicable

3.13.2.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to agriculture as identified in the Final EIR, and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.13.2.3 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. In addition, because the impacts of the modified conductor configuration and the overhead installation modifications of the telecommunications system would be identical to those identified for the segment realignment and modified pole span length/pole height/number along the approved Valley-Ivyglen 115 kV Subtransmission Line, the analysis of agricultural impacts covers the following Proposed Modifications: segment realignment, conversion to underground, modified pole span length/pole height/number, additional pole types, access road design changes, staging areas, stringing setup areas, helicopter operation yards, guard structure installation, shoofly installation, helicopter use, and underground installation of the telecommunications system.

Impact AG-1: Designated Farmland

The Final EIR indicated that approximately three acres of designated agricultural lands (Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance) would be disturbed due to the installation of new poles. In addition, approximately 12 acres of agricultural lands would be developed for access roads to these poles. Therefore, the Approved Project would impact a total of approximately 15 acres of designated farmland. The new roads would not be expected to have a significant impact because the total area that would be developed only represents approximately 0.03 percent of the 180,178 acres of designated agricultural land in Riverside County.[1] Therefore, the Final EIR determined that the Approved Project would not have a significant impact on state-designated farmlands (Class III).

Valley-Ivyglen 115 kV Subtransmission Line

The proposed realignments of the Valley-Ivyglen 115 kV Subtransmission Line would increase the total amount of designated agricultural land that would be spanned by approximately 2,161 feet. A comparison between the approved subtransmission line and the proposed subtransmission line, by designated agricultural land type, is presented in *Table 3.13-3: Comparison of Disturbed Farmland Impacts to the Final EIR*. While additional portions of agricultural land would be spanned by the proposed subtransmission line alignment, it is anticipated that only approximately three to 35 more poles would be located in designated agricultural lands. As shown in *Table 3.13-4: Valley-Ivyglen 115 kV Subtransmission Line Estimated Farmland*

[1] The Final EIR reported that there are approximately 180,178 acres of lands designated as agricultural in Riverside County. According to the California Department of Conservation (DOC), there were approximately 444,455 acres of designated agricultural lands in Riverside County in 2006. In 2008, there were approximately 433,879 acres of designated agricultural lands.

Disturbance, construction activities would temporarily impact approximately 110.36 to 120.01 acres of designated agricultural land. Approximately 19.61 to 22.54 acres of designated agricultural land would be permanently impacted by the Approved Project with Proposed Modifications.

Table 3.13-3: Comparison of Disturbed Farmland Impacts to the Final EIR

Farmland Type	Approximate Length Within Designated Agricultural Land (feet)			Approximate Number of Poles Within Designated Agricultural Land		
	Approved Project[2]	Approved Project with Realignments	Change	Approved Project[2]	Approved Project with Realignments and Modified Pole Span Lengths	Change
Prime Farmland	259	254	-5	1	1	--
Unique Farmland	1,851	--	-1,851	8	--	-8
Farmland of Statewide Importance	3,695	2,577	-1,118	18	11 to 13	-5 to -7
Farmland of Local Importance	37,321	42,456	5,135	183	201 to 231	18 to 48
Total	**43,126**	**45,287**	**2,161**	**210**	**213 to 245**	**3 to 35**

[2] The data presented in these columns were obtained from Table D.14-1: Estimated Disturbed Farmland (as designated by DOC) in the Final EIR, and reflect data from 2006 for the originally proposed route. Alternative 5 was selected as the environmentally superior alternative, and Section E Comparison of Alternatives states that Alternative 5 would have fewer impacts to agricultural resources. The numbers used for the Project Modification Report are based on the most recent data for farmland designated by the DOC.

Table 3.13-4: Valley-Ivyglen 115 kV Subtransmission Line Estimated Farmland Disturbance

Proposed Modification	Prime Farmland		Farmland of Statewide Importance		Farmland of Local Importance	
	Approximate Temporary Disturbance (acres)	Approximate Permanent Disturbance (acres)	Approximate Temporary Disturbance (acres)	Approximate Permanent Disturbance (acres)	Approximate Temporary Disturbance (acres)	Approximate Permanent Disturbance (acres)
Pole Installation	0.19 to 0.22	0.01	1.82 to 2.09	0.08 to 0.09	43.20 to 49.68	2.90 to 3.34
Conversion to Underground	--	--	--	--	5.11	0.19
Access Road Design Changes	0.06	0.10 to 0.12	0.57 to 0.66	0.96 to 1.11	18.26 to 21.00	15.37 to 17.68
Staging Areas	--	--	--	--	18.64	--
Stringing Setup Areas	--	--	--	--	21.96	--
Guard Structure Installation	0.02	--	0.04	--	0.55	--
Total	**0.25 to 0.28**	**0.11 to 0.13**	**2.39 to 2.79**	**1.04 to 1.20**	**107.72 to 116.94**	**18.46 to 21.21**

The Proposed Modifications would not have a significant impact on designated farmland because the total area of permanent development represents less than approximately 0.01 percent of the approximately 433,879 acres of designated agricultural land in Riverside County. As a result, Impact AG-1 would remain consistent with the Final EIR's assessment of Class III (Less than Significant). Therefore, the Proposed Modifications to the Valley-Ivyglen 115 kV Subtransmission Line would not result in a new significant impact or substantially increase the severity of the impact related to Impact AG-1 as compared to the Final EIR.

Telecommunications System Modifications

Approximately 0.11 acre of Farmland of Local Importance would be temporarily disturbed and approximately 0.08 acre of Farmland of Local Importance would be permanently disturbed by the underground installation of the telecommunications system in new conduits. The additional undergrounding of the proposed telecommunications system constitutes a very minor increase in the amount of permanent disturbance to designated agriculture as compared to the Final EIR. The additional permanent disturbance would not have a significant impact on designated farmland because the total area that would be permanently developed represents less than 0.01 percent of the approximately 433,879 acres of designated agricultural land in Riverside County. As a result, impacts would be less than significant (Class III), and Impact AG-1 would still be considered Class III (Less-than-Significant) impact. Therefore, the Proposed Modifications to the telecommunications system would not result in a new significant impact or substantially increase the severity of the impact related to Impact AG-1 as compared to the Final EIR.

Impact AG-2: Williamson Act Lands

The Final EIR indicated that the Approved Project would not cross any lands currently under Williamson Act contract. Therefore, there would be no impact related to zoning and Williamson Act lands.

None of the Proposed Modifications cross agricultural lands currently under Williamson Act contract. The closest area of land under Williamson Act contract is approximately 0.7 mile from the Proposed Modifications. As a result, Impact AG-2 is still considered a Class III (Less-than-Significant) impact. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact AG-2 as compared to the Final EIR.

Impact AG-3: Other Farmland Considerations

The Final EIR indicated that the farmlands spanned by the proposed subtransmission line would be limited to grazing lands. A minor amount of land would be disturbed by the proposed subtransmission line, primarily for the construction of new access roads. The ability to successfully use the land for its current function of grazing would not be impeded or diminished because there would be no physical barrier to limit the free movement of cattle and other livestock from one side of the proposed subtransmission line to the other. Further, there would be no impediments to the movement of farm equipment from one side of the subtransmission line to the other. Therefore, there would be no impact related to conflicts with existing farmland for the Approved Project (Class III).

The segment realignments are all contained within grazing lands. A minor amount of land would be disturbed by the Proposed Modifications; however, the ability to successfully use the land for its current function of grazing would not be impeded or diminished because there would be no physical barrier to limit the free movement of cattle and other livestock. Further, none of the Proposed Modifications would impede the movement of farm equipment. As a result, Impact AG-3 is still considered a Class III (Less-than-Significant) impact. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact AG-3 as compared to the Final EIR.

3.13.2.3 Additional Evaluation

The California Environmental Quality Act (CEQA) Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and questions regarding forest land, timberland, and timberland zoned timberland production have been added to the CEQA Guidelines Initial Study Checklist and are discussed in the subsection that follows.

Impact AG-4: Forest Land, Timberland, and Timberland Zoned Timberland Production

The Approved Project would not cross any timberland or timberland zoned Timberland Production. The Segment 4 and 5 realignments would cross approximately 160 feet and 441 feet of forest land, land designated as Southern Cottonwood/Willow Riparian Forest, respectively. The Segment 7 realignment, underground conversion of Segment 8, and the temporary shoofly would cross approximately 198 feet, 41 feet, and 144 feet of forest land, land designated Coastal Live Oak Woodland, respectively. As described in *Table 3.13-5: Temporary Forest Land Impact Summary*, approximately 4.51 to 4.94 acres of forest land would be temporarily impacted during construction. Portions of these areas may require tree trimming; however, tree removal is not anticipated. The use of temporary work areas and structures during construction would not change the land designation of Southern Cottonwood/Willow Riparian Forest.

Table 3.13-5: Temporary Forest Land Impact Summary

Construction Activity	Approximate Temporary Impact Area (acres)	Forest Land Type
Pole Installation	0.25 to 0.29	Coastal Live Oak Woodland
	2.28 to 2.62	Southern Cottonwood/Willow Riparian Forest
Guard Structure Installation	< 0.01	Southern Cottonwood/Willow Riparian Forest
Access Road Design Changes	0.15 to 0.20	Southern Cottonwood/Willow Riparian Forest
Stringing Setup Area Use	< 0.01	Coastal Live Oak Woodland
	0.84	Southern Cottonwood/Willow Riparian Forest
	< 0.01	Southern Sycamore/Alder Riparian Woodland
Underground Subtransmission Line Installation	0.89	Coastal Live Oak Woodland
	0.10	Southern Sycamore/Alder Riparian Woodland
Total	**4.51 to 4.94**	**--**

The Proposed Modifications would result in the permanent disturbance of land designated as Southern Cottonwood/Willow Riparian Forest through the acquisition of new right-of-ways (ROWs) up to 60 feet wide, construction of new permanent access roads, and permanent widening of existing access roads. The temporary shoofly would be removed upon the completion of construction and, therefore, would temporarily disturb but not permanently convert land designated as Southern Cottonwood/Willow Riparian Forest. The underground conversion of Segment 8 would occur within the Temescal Canyon Road franchise and, therefore, would temporarily disturb but not permanently convert land designated as Southern Cottonwood/Willow Riparian Forest.

AMEC conducted vegetation surveys within 500 feet of the proposed subtransmission line, an area that contains approximately 112.70 acres of forest land, or land designated as Coastal Live Oak Woodland, Southern Cottonwood/Willow Riparian Forest, and Southern Sycamore/Alder Riparian Woodland. Based on preliminary engineering data, approximately 1.36 acres of forest land—specifically land designated as Southern Cottonwood/Willow Riparian Forest and Coastal Live Oak Woodland—would be permanently converted to non-forest use due to the acquisition of new ROW. Approximately 0.40 to 0.46 acre of forest land—specifically land designated as Southern Cottonwood/Willow Riparian Forest and Coastal Live Oak Woodland—would be permanently converted to non-forest use due to the construction of new permanent access roads, permanent widening of existing access roads, and pole installation. This is not considered significant when compared to the amount of forest land surveyed within 500 feet of the proposed subtransmission line. As a result, the impacts would be less than significant and considered a Class III impact. Therefore, the Proposed Modifications would not result in a new significant impact related to Impact AG-4.

3.13.3 Summary

As indicated in *Table 3.13-6: Significance of Impact Changes – Agriculture*, the Proposed Modifications would not significantly increase the severity of effects nor change the impact determinations of significance associated with agriculture and forestry identified in the Final EIR. Therefore, impacts significance levels identified in the Final EIR would not change as a result of the Proposed Modifications.

Table 3.13-6: Significance of Impact Changes – Agriculture

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs
Impact AG-1: Designated Farmland	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact AG-2: Williamson Act Lands	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact AG-3: Other Farmland Considerations	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact AG-4: Forest Land, Timberland, and Timberland Zoned Timberland Production	Not Addressed	Class III (Less than Significant)	Not Addressed	None

Source: CPUC, 2010

3.13.4 References

AMEC. 2012. *MSHCP Biological Resources Technical Report for Valley-Ivyglen Subtransmission Line Project, Phase I, Riverside County, California*.

California Resources Agency. 2010. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

CPUC. 2009. Southern California Edison Valley-Ivyglen Subtransmission Line and Fogarty Substation Project Draft Environmental Impact Report. Online. http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/DEIR/DEIR_Index.htm. Site visited August 7, 2012.

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3.14 POPULATION AND HOUSING

This section summarizes the impacts to population and housing identified in the Final Environmental Impact Report (EIR), describes the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) relevant to population and housing, and analyzes the potential effects of the Proposed Modifications on population and housing. As discussed in the following subsections, the Proposed Modifications would not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact as compared to the Final EIR.

3.14.1 Summary of Final EIR

The Final EIR determined that impacts to population and housing would be less than significant. *Table 3.14-1: Summary of Final EIR – Population and Housing* summarizes the impacts, significance determinations, and applicable applicant-proposed measures (APMs)/mitigation measures (MMs) for population and housing associated with the Approved Project.

Table 3.14-1: Summary of Final EIR – Population and Housing

Final EIR Impact	Level of Significance	Applicable APMs/MMs
Impact POP-1: Population Growth. The Final EIR determined that construction of the Approved Project would result in no impact to population growth.	Class III (Less than Significant)	None
Impact POP-2: Existing Housing. The Final EIR determined that construction of the Approved Project would result in no impact to the existing population.	Class III (Less than Significant)	None
Impact POP-3: Existing Residents. The Final EIR determined that the location of the proposed subtransmission line and telecommunications system would not displace substantial numbers of people, thereby necessitating the construction of replacement housing elsewhere.	Class III (Less than Significant)	None

Source: California Public Utilities Commission (CPUC), 2010

3.14.2 Analysis of Effects of Proposed Modifications

This section analyzes the potential effects on population and housing from the Proposed Modifications.

3.14.1.1 Methodology

Potential impacts to population and housing resulting from the construction of each Proposed Modification were determined based on an assessment of whether the Proposed Modification would induce substantial population growth or displace substantial numbers of existing housing or residents, thereby necessitating the construction of replacement housing elsewhere. The methodology used from this analysis is consistent with the methodology used for the Final EIR. *Table 3.14-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Population and Housing* summarizes the relevance of each Proposed Modification to the applicable impact from the Final EIR.

Table 3.14-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Population and Housing

Proposed Modifications	Impact POP			Discussion
	-1	-2	-3	
Valley-Ivyglen 115 kV Subtransmission Line Design Modifications				
Segment Realignment	✓	✓	✓	Segment realignment associated with the Proposed Modifications has the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Conversion to Underground	✓	✓	✓	The conversion of the subtransmission line to underground associated with the Proposed Modifications has the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Modified Pole Span Length/Pole Height/ Number	✓	✓	✓	The modified pole span length/pole height/number associated with the Proposed Modifications has the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Additional Pole Types	NA	NA	NA	The use of additional pole types for the Proposed Modifications would not result in changes to population and housing impacts as compared to the Final EIR. Hybrid poles would replace tubular steel poles or light-weight steel poles (LWSPs) in four locations along the existing alignment. The hybrid poles would be installed using similar construction methods as would be used to install the approved poles. Guy poles would be installed across from the approved LWSPs. No hybrid or guy poles would displace existing housing or residents. Potential impacts from guy poles installed in new, non-approved locations are addressed in the analysis associated with the segment realignment in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.

Proposed Modifications	Impact POP			Discussion
	-1	-2	-3	
Modified Conductor Configuration	NA	NA	NA	The use of a modified conductor configuration for the Proposed Modifications would not result in any changes to population and housing impacts as compared to the Final EIR. Modified conductor configuration would occur along the same poles used to support the Valley-Ivyglen 115 kV Subtransmission Line using the same construction methods described in the Final EIR. Potential impacts from the subtransmission line installed in new, non-approved locations are addressed in the analysis associated with the segment realignment in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.
Access Road Design Changes	✓	✓	✓	Access road design changes associated with the Proposed Modifications have the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Valley-Ivyglen 115 kV Subtransmission Line Construction Modifications				
Staging Areas	✓	✓	✓	The use of new staging areas for the Proposed Modifications has the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
String Setup Areas	✓	✓	✓	Stringing setup areas associated with the Proposed Modifications have the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Helicopter Operation Yards	✓	✓	✓	The use of helicopter operation yards for the Proposed Modifications has the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact POP			Discussion
	-1	-2	-3	
Guard Structure Installation	✓	✓	✓	The use of guard structures for the Proposed Modifications has the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Shoofly Installation	NA	NA	NA	The use of a shoofly for the Proposed Modifications would not result in changes to population and housing impacts as compared to the Final EIR. Shoofly installation would not require additional construction personnel; therefore, it would not result in population growth. In addition, shoofly installation would not occur within 300 feet of existing housing or residents, and would not displace housing or residents.
Blasting/ Fracturing	NA	NA	NA	The use of blasting/fracturing for the Proposed Modifications would not result in changes to population and housing impacts as compared to the Final EIR. Blasting/fracturing would not require additional construction personnel; therefore, it would not result in population growth. In addition, blasting/fracturing may occur adjacent to existing housing and residents; however, if the blast is located near sensitive receptors, special protective measures would be installed to control flying rock at the blast site. Therefore, this Proposed Modification would not displace housing or residents.
Helicopter Use	✓	✓	✓	The use of helicopters for the Proposed Modifications has the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.
Telecommunications System Modifications				
Underground Installation	✓	✓	✓	Underground installation of the telecommunications system associated with the Proposed Modifications has the potential to affect Impact POP-1, -2, and -3 as compared to the Final EIR, as analyzed in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*. As shown, the changes would not result in any new significant impacts as compared to the Final EIR.

Proposed Modifications	Impact POP			Discussion
	-1	-2	-3	
Overhead Installation	NA	NA	NA	The modifications to the telecommunications system would be colocated with the Valley-Ivyglen 115 kV Subtransmission Line; therefore, impacts associated with this modification are addressed in the analysis associated with segment realignment and modified span length/pole height/number of poles in *Section 3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations*.

Note: NA = Not Applicable

3.14.1.2 Effect of the Proposed Modifications on the Final EIR Impact Determinations

The following subsections summarize the Approved Project's impacts to population and housing as identified in the Final EIR and evaluate whether the Proposed Modifications would affect the respective impact determinations reached by the Final EIR. Proposed Modifications are only discussed if they have the potential to change an impact associated with the Approved Project. *Section 3.14.1.3 Additional Evaluation* contains a separate analysis that was performed to identify any new impacts associated with the Proposed Modifications. If none of the Proposed Modifications apply, a brief summary is provided of the Final EIR's conclusion and the reason why the Final EIR's conclusion would remain unchanged by the Proposed Modifications. The modifications to the telecommunications system do not affect population and housing and are not described further, as described in *Table 3.14-2: Summary of Proposed Modifications Relevant to Impacts Identified in the Final EIR – Population and Housing*. In addition, the impacts from the additional pole types, modified conductor configuration, access road design changes, staging areas, stringing setup areas, helicopter operation yards, guard structure installation, shoofly installation, blasting/fracturing, and helicopter use would not require additional construction personnel or displace housing or residents. As a result, the analysis of population and housing impacts covers the following Proposed Modifications: segment realignment, conversion to underground, and modified span length/pole height/number of poles.

Impact POP-1: Population Growth

The Final EIR indicated that construction would be performed by either Southern California Edison's (SCE's) construction crews or by local contractors. Contract construction crew members would come from either Riverside County or the surrounding communities, and it is unlikely that they would require housing. If SCE's construction crews would be used, they would likely be based at SCE's Rialto facility—the operation and maintenance facility for SCE's substation construction crews—and they would require temporary, short-term housing. Approximately 94 crew members would be required for construction of the Approved Project. This total represents the maximum number of construction crew members over the approximately 27-month timeframe. However, at no point during construction of the Approved Project would all approximately 94 construction crew members be working at the same time due to the sequential nature of construction and specialized labor. Riverside County would have enough temporary housing to accommodate the approximately 94 crew members during the construction period. Therefore, the Final EIR concluded that construction of the Approved Project would result in no impact to population growth (Class III).

The Proposed Modifications would be located primarily along or within existing roads, SCE's existing lines, and/or SCE's rights-of-way (ROWs). Though some new temporary and permanent roads would be constructed to provide access to limited areas of the subtransmission line, these access roads would not be intended for public use and the temporary roads would be returned to near pre-construction conditions following the completion of construction. As a result, these access roads would not induce indirect population growth by increasing access to new areas for development. In addition, no new housing or businesses would be constructed as part of the Proposed Modifications.

During the peak construction periods, a maximum of 125 people are anticipated to be working at any given time, and some of these crew members would likely be local residents commuting from the surrounding areas. Regardless, there is sufficient temporary housing available in the area to accommodate temporary construction personnel (Riverside County's hotel occupancy rate in October 2012 was approximately 60 percent and the rental vacancy rate in 2012 for the western portion of the county is approximately 6.3 percent). Because construction would be temporary—lasting approximately 37 months—and the workforce is unlikely to relocate, the Proposed Modifications would not result in a permanent increase in the area's population. Therefore, no permanent or long-term population growth in the area would occur due to the construction of the Proposed Modifications, and there would be no impact, which is consistent with the Final EIR's assessment of Class III (Less than Significant). As a result, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact POP-1 as compared to the Final EIR.

Impact POP-2: Existing Housing

The Final EIR indicated that construction of the Approved Project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. In addition, the Approved Project would not require a workforce that would displace substantial numbers of people nor would the Approved Project necessitate the construction of replacement housing elsewhere. Therefore, construction of the Approved Project would result in no impact to the existing population (Class III).

Construction of the Proposed Modifications would be primarily conducted within or along existing roads and/or SCE's ROWs. In the locations where a ROW is not currently held by SCE, the location of the proposed subtransmission line would not displace existing housing units or necessitate the construction of replacement housing elsewhere. As a result, no housing would be displaced from construction of the Proposed Modifications, and there would be no impact, which is consistent with the Final EIR's assessment of Class III (Less than Significant). Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact POP-2 as compared to the Final EIR.

Impact POP-3: Existing Residents

The Final EIR indicated that the proposed subtransmission line, telecommunications system, and improvements to Valley and Ivyglen substations would be located primarily along or within existing roads, SCE's distribution lines, and/or SCE's ROWs. In the locations where a ROW is not currently held by SCE, the location of the proposed subtransmission line and telecommunications system would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. SCE would continue to obtain land rights in locations where the Proposed Modifications would be located outside of their current ROWs. As a result, there would be no impact and the Class III (Less-than-Significant) assessment from the Final EIR would not change. Therefore, the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact related to Impact POP-3 as compared to the Final EIR.

3.14.1.3 Additional Evaluation

The City of Menifee was incorporated in October 2008 during the completion of the Final EIR. Menifee is located in eastern Riverside County, bordered by the cities of Perris, Canyon Lake, Lake Elsinore, Murrieta, Wildomar, and unincorporated Riverside County, and is approximately 50 square miles. *Figure 2-1: Valley-Ivyglen 115 kV Subtransmission Line Overview Map* in *Chapter 2 – Proposed Modifications* depicts the location of the City of Menifee. Population growth in the area adjacent to the Proposed Modifications, existing housing, and existing residents have not changed as a result of Menifee's incorporation.

The California Environmental Quality Act Guidelines Initial Study Checklist was reviewed for changes since the adoption of the Final EIR, and no new checklist questions have been added for this resource area.

3.14.3 Summary

As indicated in *Table 3.14-3: Significance of Impact Changes – Population and Housing*, Proposed Modifications would not significantly increase the severity of effects nor change the determinations of significance on population and housing identified in the Final EIR. Therefore, impact significance levels identified in the Final EIR would not change as a result of the Proposed Modifications.

Table 3.14-3: Significance of Impact Changes – Population and Housing

Impact	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs
Impact POP-1: Population Growth	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact POP-2: Existing Housing	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Impact POP-3: Existing Residents	Class III (Less than Significant)	Class III (Less than Significant)	None	None

Source: CPUC, 2010

3.14.4 References

California Resources Agency. 2010. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

City of Menifee. Online. http://www.cityofmenifee.us/index.aspx?NID=85. Site visited August 23, 2012.

CPUC. 2009. Southern California Edison Valley-Ivyglen Subtransmission Line and Fogarty Substation Project Draft Environmental Impact Report. Online. http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/DEIR/DEIR_Index.htm. Site visited August 7, 2012.

CPUC. 2010. Southern California Edison Valley-Ivyglen Subtransmission Line and Fogarty Substation Project Final Environmental Impact Report. Online. http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/FEIR/FEIR_Index.htm. Site visited August 7, 2012.

The Press-Enterprise. As Vacancy Rates Drop, Home Prices on the Increase. Online. http://www.pe.com/real-estate/company-news/20120507-as-vacancy-rates-drop-home-prices-on-the-increase.ece. Site visited December 6, 2012.

The Press-Enterprise. Riverside: Hotel Developer That Got City Help Could Sue. Online. http://www.pe.com/local-news/riverside-county/riverside/riverside-headlines-index/20121026-riverside-hotel-developer-that-got-city-help-could-sue.ece. Site visited December 6, 2012.

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4 – CUMULATIVE IMPACTS

4.0 INTRODUCTION

The California Environmental Quality Act (CEQA) requires lead agencies to consider the cumulative impacts of proposals under their review. Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." According to Section 15130(a)(1), a cumulative impact "is the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions." The cumulative impacts analysis "would examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects" (Section 15130(b)(3)).

Section 15130(a)(3) also states that an environmental document may determine that a project's contribution to a significant cumulative impact would be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund its fair share of mitigation measures designed to alleviate the cumulative impact.

In conducting a cumulative impacts analysis, the proper frame of reference is the temporal span and spatial areas in which the proposed Valley-Ivyglen 115 Kilovolt (kV) Subtransmission Line Project modifications (Proposed Modifications) would cause impacts. In addition, a discussion of cumulative impacts must include either:

- a list of past, present, and reasonably future projects, including, if necessary, those outside the lead agency's control; or

- a summary of projections contained in an adopted general plan or related planning document, or in a previously certified Environmental Impact Report (EIR), which has described or evaluated regional or area-wide conditions contributing to the cumulative impact, provided that such documents are referenced and made available for public inspection at a specified location (Section 15130(b)(1)).

The term "probable future project" includes approved projects that have not yet been constructed; projects that are currently under construction; projects requiring an agency approval for an application that has been received at the time that a Notice of Preparation is released; and projects that have been budgeted, planned, or included as a later phase of a previously approved project (Section 15130(b)(1)(B)(2)). A listing of projects meeting this criteria that have the potential to disturb over one acre and are located within approximately one mile of the Proposed Modifications are listed in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications*, along with the project number, a brief description, the jurisdiction in which it is located, and status.

Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications

Project Number	Name/Type	Location	Description	Status[1]
Riverside County				
Specific Plan (SP) 374	Toscana Marketplace/Toscana Business Center	North of Indian Truck Trail Road on the east frontage of Interstate (I-) 15 and Temescal Canyon Road	Approximately one million square feet of mixed use development on approximately 65 acres	Application Filed
Not Available (NA)	Sun Valley Energy Project	29500 Rouse Road, Romoland	500-megawatt (MW) simple-cycle power plant consisting of five natural gas-fired turbine generators and associated equipment	Application Filed
Tract Map Number TR32022	Tract Map	State Route (SR-) 74 and Ethanac Road	Approximately 265-lot subdivision on approximately 127.4 acres	Application Filed
Tract Map Number TR36450	Tract Map	SR-74 and Richard Street	Approximately 243-lot subdivision with two commercial lots, a trail, and approximately 50 acres of open space	Application Filed
Tract Map Number TR36316	Tract Map	South of Santiago Canyon Road between Maitri Road and I-15	Approximately 94-lot subdivision on approximately 89.1 acres with an open space park and basin	Application Filed
Tract Map Number TR33762	Tract Map	North of SR-74, south of Montgomery Avenue and Contour Avenue between Menifee Road and Juniper Flats Road	Subdivision with 35 lots on approximately 220 acres	Application Filed
NA	I-15 Corridor Improvement Project	I-15 between I-215 and SR-74	High-occupancy vehicle lane, two express lanes, a general purpose lane, and auxiliary lanes	Approved

[1] The status of each project has been divided into three categories: Application Filed, meaning an application has been submitted to the jurisdictional agency; Approved, indicating that the project has been approved, but is not yet under construction; and Under Construction.

Project Number	Name/Type	Location	Description	Status[1]
NA	I-215 Corridor Redevelopment Project Area	Old Elsinore Road and San Jacinto Avenue	Elimination or alleviation of physical and economic blight	Application Filed
NA	Indian Truck Trail Interchange Project	Indian Truck Trail and I-15	Widen Indian Truck Trail to four lanes, install a sidewalk, construct walls under the I-15 bridges, add three new traffic signals, add ramp meters, and reconfigure the intersection of Indian Truck Trail and Temescal Canyon Road	Under Construction
City of Perris				
NA	Central I-215 Project	Scott Road interchange north of Murrieta Road to Nuevo Road interchange	One general purpose lane to both northbound and southbound I-215	Under Construction
04-0621	Commercial Center within Green Valley Specific Plan	Northeast corner of intersection of Ethanac Road and Case Road, west of I-215	Approximately 650,000-square-foot retail and office space on 21 lots, including four lots for condominiums	Approved
05-0335	Mixed Use Project	Northwest corner of Illinois Avenue and Trumble Road intersection, north of Ethanac Road	Approximately 387,993 square feet of mixed use on approximately 27 acres, including approximately 10,843 square feet of retail, 202,618 square feet for warehouse/distribution, and 170,268 square feet for multi-use and appurtenances	Approved
06-0337	Commercial Retail Shopping Center	Southeast corner of I-215 and Ethanac Road intersection	Approximately 484,300-square-foot commercial retail shopping center on approximately 59 acres	Approved
NA	Riverwoods Specific Plan	Between Mapes Road and Ethanac Road, west of River Road, and east of McPherson Road	Approximately 696 to 750 dwelling units on approximately 227 acres	Approved
33973	Tentative Tract Map	North of San Jacinto River, west of McPherson Road, south of Ethanac Road, and east of Sophie Street	Approximately 384-lot subdivision on approximately 154 acres, including 12 lots for San Jacinto River migration land, passive park facilities, and open space	Approved

Project Number	Name/Type	Location	Description	Status[1]
33900	Residential Tentative Tract Map	Southeastern corner of Ethanac Road and McPherson Road	Approximately 198-lot subdivision on approximately 116 acres	Approved
31926	Residential Tract Map	Northwest corner of Ethanac Road and Goetz Road	Approximately 337-lot subdivision on approximately 313 acres	Approved
City of Lake Elsinore				
NA	Nevada Hydro Company Lake Elsinore Advanced Pump Storage	Western side of Lake Elsinore and San Juan Creek with an upper reservoir located in the headwaters of San Juan Creek Watershed	500-MW hydroelectric facility, 180-foot-high main dam, and approximately 32 miles of transmission lines	Application Filed
2005-17, Community Rating System (CRS) 995	Design Review	Nichols Road and Lake Street	Approximately 127 single-family homes, including a model home complex	Approved
NA	Alberhill Ranch Specific Plan, Phase One	Nichols Road and Lake Street	Approximately 335,412 square feet of commercial development, 1,011 single-family dwelling units, and 550 multi-family dwelling units	Under Construction
NA	Alberhill Ranch Specific Plan, Phase Two	Nichols Road and Lake Street	Approximately 258 single-family dwelling units	Approved
Tract Map 32786	Lakeside Palms	East of Terra Cotta Road, west of Dryden Street, and north of Lakeshore Drive	Approximately 369 single-family dwelling units	Approved
Tentative Tract Map 28214, CRS 444	Tentative Tract Map	Nichols Road and Lake Street	Approximately 1,042 lots for future residential and commercial	Under Construction

Project Number	Name/Type	Location	Description	Status[1]
Tentative Parcel Map 30739, CRS 560	Tentative Parcel Map	Off Nichols Road and east of I-15	Twelve-lot subdivision on approximately 201 acres	Approved
2006-0002	Elsinore West Business Park	Collier Avenue and Minthorn Street	Approximately 41,439 square feet of industrial buildings	Approved
Tentative Tract Map Number 35000	Tentative Tract Map	Temescal Road and Lake Street	10-lot subdivision on approximately 1,137 acres	Application Filed
Reclamation Plan Number 2011-01	Reclamation Plan	Nichols Road and Lake Street	Reclamation of approximately 57.4 acres of mining areas and approximately 33.1 acres of storm water detention ponds	Application Filed
Vesting Tentative Map Number 35001	Vesting Tentative Map	Nichols Road and Lake Street	Approximately 1,065-lot subdivision on approximately 400 acres	Application Filed
Reclamation Plan Number 2008-01	Reclamation Plan Number 2008-01 and Vested Right to Mine	East side of 1-15, between Nichols Road and Lake Street	Reclamation of approximately 85.76 acres of mining areas	Application Filed
City of Menifee				
Change of Zone (CZ) 2009-023, General Plan Amendment (GPA) 2009-024, SP-2009-025, Environmental Assessment 2009-026	Fleming Ranch Specific Plan	North of Chambers Avenue, east of Encanto Drive, south of Rouse Road, and west of Antelope Road	Approximately 1,501 dwelling units, 23.3 acres of light industrial/commercial land uses, 11.7-acre school site or up to 63 dwelling units, 47.6 acres of open space/recreation, and 38.4 acres of project roadways on 333.6 acres	Application Filed

Project Number	Name/Type	Location	Description	Status[1]
SP-2010-090	Menifee North Specific Plan Amendment	Northwest corner of SR-74 and Palomar Road	Change land use designation of Commercial and Business Park to Commercial and High Density Residential	Application Filed
TR 34104 and TR 34105	Fleming Ranch Tracts	South of Newport Road, west of Haun Road, and north of Holland Road	Approximately 98-acre mixed use town center, including a public park; approximately 558,657 square feet of retail, office, and hotel uses; and up to 1,052 residential units	Application Filed
TR-35143 (TR 2009-123)	Evans Road Subdivision	Southwest corner of Evans Road and Nova Lane	Thirteen-lot subdivision on approximately 3.84 acres	Application Filed
CZ 7324, PP 21229, CUP 3507	North County Sand and Gravel	South of Ethanac Road, west of Sherman Road, east of Trumble Road, and north of McLaughlin Road	Concrete mixing batch plant	Application Filed
PP 2011-003	Trumble Office and Warehouse	South of Ethanac Road, west of Antelope Road, and east of Dawson Road	Approximately 21,600-square-foot office building, including one caretaker's unit and area for warehouse and storage, approximately 40,000-square-foot building for warehouses or storage of material, equipment parking, and 101 parking spaces on approximately five acres	Application Filed
PP 2009-033	Grove Lumber	27126 Watson Road	Approximately 30-acre lumber yard and storage facility, with accessory buildings	Application Filed
CZ 7409 and PP 2009-171	Pacific Mobile Structures	North of McLaughlin Road, south of Ethanac Road, west of Hull Street, and east of Murrieta Road	Mobile/modular building storage and refurbishment yard with approximately 140,000 square feet for storage, approximately 15,430 square feet for parking and drive aisles, and an approximately 1,792-square-foot modular office building on approximately 4.63 acres	Approved
PP 2010-049 and PM 2010-050	Dawson Contractor's Storage Yard	26330 Dawson Road	Two-lot subdivision on approximately 5.01 acres for buildings on contractor's storage yard	Application Filed

Project Number	Name/Type	Location	Description	Status[1]
GPA 2011-035 and CZ 2011-036	Alwaffa General Plan Amendment and Change of Zone	East of Barnett Road, west of I-215, and south of Ethanac Road	Change the land use designation from Medium Density Residential to Commercial Retail and zoning designation from One-Family Dwellings to Commercial	Application Filed
PP 2009-111	UPS Expansion	North of SR-74, east of Trumble Road, and west of Sherman Road	Expansion of an existing warehouse facility from approximately 18,754 square feet to approximately 49,407 square feet, including an approximately 4,065-square-foot office building, 13,537-square-foot loading area, 24,665-square-foot warehouse space, 2,437-square-foot auto service shop, and 1,115-square-foot car wash, 15 tractor trailer truck docks, 17 tractor trailer parking spaces, 113 parcel van docks, 222 automobile parking spaces, a below-ground fuel tank, and four fuel islands	Application Filed
Minor CUP 2011-049	JN Grease Station	South of SR-74 and west of Sherman Road	Addition of silos and change operations to a grease recycling collection facility	Application Filed
Southern California Edison (SCE)				
NA	Reconductor Valley-Newcomb	City of Menifee	Reconductor of the Valley-Newcomb leg of Valley-Newcomb-Skylark 115 kV Subtransmission Line	Under Construction
NA	Alberhill System Project	Unincorporated Riverside County, City of Lake Elsinore, City of Wildomar, and City of Menifee	New, approximately 34-acre, 1,120 megavolt ampere (MVA) 500/115 kV Alberhill Substation; two approximately one-mile-long, 500 kV transmission lines; and approximately 20 miles of new or modified 115 kV subtransmission lines	Application Filed
NA	Ivyglen Substation	Unincorporated Riverside County	Increase transformer capacity from 28 MVA to 56 MVA and add two 12 kV circuits	Approved

Sources: Aspen Environmental Group, 2013; California Energy Commission (CEC), 2012; City of Lake Elsinore, 2012; City of Menifee, 2012; City of Perris, 2012a; City of Perris, 2012b; City of Riverside, 2012; California Public Utilities Commission (CPUC), 2012; County of Riverside Economic Development Agency, 2006; County of Riverside Economic Development Agency, 2002; Lake Elsinore-Wildomar Patch, 2012; Riverside County Planning Department, 2012; Riverside County Transportation Commission (RCTC), 2012a; RCTC, 2012b; Riverside County Transportation and Land Management Agency, 2012

The following subsections discuss whether—when combined with past, present, planned, and probable future projects in the area—the Proposed Modifications could result in significant short-term or long-term environmental impacts. Short-term impacts are generally associated with construction of the Proposed Modifications, while long-term impacts are those that result from permanent Proposed Modification features or operation and maintenance of the Proposed Modifications.

4.1 LAND USE

4.1.1 Final EIR Determinations

The Final EIR determined that the Approved Project would have a significant visual impact on scenic highways because portions of the subtransmission line would be within view of I-15 and SR-74, eligible State Scenic Highways, and would not be placed underground in accordance with the Riverside County General Plan and City of Lake Elsinore Zoning Ordinance. As a result of Riverside County's rapid development, the aesthetic character of the area in the vicinity of the Approved Project has been and would be in the foreseeable future substantially and adversely changed. The Final EIR determined that the Approved Project would contribute to the substantial cumulative degradation of visual resources in the area and, therefore, the Approved Project would substantially contribute to cumulative land use impacts (Class I).

4.1.2 Impacts of the Proposed Modifications

The Proposed Modifications, as well as one cumulative project within one mile of the Proposed Modifications, would include utility installation within view of an eligible State Scenic Highway. The Alberhill System Project is a utility project that would result in the construction of a new substation, two 500 kV transmission lines, one 115 kV subtransmission line, four modified 115 kV subtransmission lines, telecommunications lines, and an approximately 120-foot microwave antenna tower within view of I-15. The Proposed Modifications would contribute to the number of utility structures that conflict with the Riverside County General Plan and City of Lake Elsinore Zoning Ordinance. As described previously in *Section 3.1 Land Use*, the California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Modifications. Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county and cities' regulations are not applicable as the county and cities do not have jurisdiction over the Proposed Modifications. As a result, impacts to land use would be less than significant (Class III).

4.2 VISUAL RESOURCES

4.2.1 Final EIR Determinations

The Final EIR determined that construction of the Approved Project would include the removal of vegetation, grading, temporary signage, temporary storage of materials, and temporary fencing. These elements would detract from the visual character, alter the viewshed, and block visual access to scenic resources, particularly as observed from the scenic highways. Further, they would create contrast in areas of distinct natural resources, particularly in the large expanses of line planned to traverse rural, undeveloped land. In a rapidly developing county, construction

of an approximately 24-mile subtransmission line would likely overlap with other construction and recent or planned development projects. Construction of the Approved Project would temporarily but significantly contribute to cumulative visual impacts in the area (Class I).

The Final EIR determined that portions of the approved route running alongside pre-existing larger lines would further contribute to diminished scenic character and altered viewsheds, though the viewshed has already been substantially degraded. Similarly, but to a greater degree, portions of the route constituting new construction would block views of scenic resources, diminish scenic character, and increase contrast. The approved line passes through a rapidly developing county and the cities of Menifee, Lake Elsinore, and Perris, all of which are experiencing substantial population growth and expansion with numerous commercial and residential projects in various stages of completion and planning. The Approved Project would substantially impact the cumulative visual resource area, contributing to cumulative visual alteration (Class I).

The Approved Project would conflict with the Riverside County General Plan and the City of Lake Elsinore Zoning Ordinance because SCE intends to erect overhead power lines and telecommunications equipment along eligible State Scenic Highways. In conjunction with other development in the area, both planned and projected, the Approved Project would clutter the viewshed and diminish the scenic quality within view of an eligible State Scenic Highway and in violation of local policies (Class I).

4.2.2 Impacts of the Proposed Modifications

Construction and operation of the Proposed Modifications would result in an incremental change to the area's visual character due to the increase in pole heights and number of poles along the subtransmission line. The area in the vicinity of the Proposed Modifications is agricultural, residential, and commercial. When considered in conjunction with the cumulative projects in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications*, it is evident that the visual character of the vicinity of the Proposed Modifications south of I-15 is transforming to large-scale residential communities. This already represents a change in the visual character of the area, to which the Proposed Modifications would contribute. Although SCE would underground a portion of the subtransmission line within view of I-15, the Proposed Modifications would continue to contribute to the subtransmission line's significant and unavoidable impact on scenic vistas, scenic resources within an eligible State Scenic Highway, and visual character. However, as discussed in *Section 3.2 Visual Resources*, the Proposed Modifications would not substantially increase the severity of the impact on the cumulative visual resource area, cumulative visual alteration, viewshed clutter, or scenic quality within view of an eligible State Scenic Highway. With the implementation of the Applicant-Proposed Measures (APMs) included in the Final EIR and discussed for the Proposed Modifications in *Section 3.2 Visual Resources*, the cumulative impact of the Proposed Modifications would not result in a new significant impact or substantially increase the severity of the impact as compared to the Final EIR.

4.3 BIOLOGICAL RESOURCES

4.3.1 Final EIR Determinations

The Final EIR determined that the Approved Project would be located within the coverage area of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). By adhering to all policies set forth in the MSHCP, the Approved Project would not substantially contribute to cumulative impacts to biological resources in violation of conservation plans (Class II).

Construction and operation of the Approved Project could potentially result in the permanent loss of or temporary disturbance to special-status plant and wildlife communities through grading, drilling, clearing brush, or other construction and maintenance activities. To protect sensitive biological resources, mitigation measure (MM) BIO-1a would require that a botanist precede construction crews and mark sensitive areas so that the areas can be avoided by construction crews and protected from construction activities. MMs BIO-1b, BIO-1d, and BIO-1f require that the same measures be taken to protect special-status plant species, special-status wildlife species, and burrowing owls, respectively. Monitoring of these areas would continue for one year following the completion of the Approved Project. Should any significant impacts occur, the MMs include provisions for restoration of disturbed species and reintroduction of impacted species as needed. Construction activities may also impact avian species by disturbing active nests, trimming trees, or removing vegetation. MM BIO-1e would mandate that either construction activities be limited to a non-breeding season or that a certified wildlife biologist conduct a pre-construction focused nesting survey. In addition, construction noise may impact both migratory and nesting birds; MM BIO-1h would regulate ambient noise levels to minimize impact to birds nesting within or passing through construction areas. With the implementation of MMs BIO-1a through BIO-1i, construction of the Approved Project would not substantially contribute, either directly or through habitat modification, to adverse cumulative effects on candidate, sensitive, or special-status species (Class II).

Construction of the Approved Project may directly and indirectly impact wetlands and riparian habitats through grading and clearing vegetation; placement of Approved Project components; exposing topsoil to weathering, impacting drainage, and impeding plant growth. In a rapidly developing area, these impacts would contribute to the cumulative degradation of these habitats. MM BIO-2a would minimize the impact of construction and operation of the Approved Project on wetlands by avoiding sensitive areas and requiring the restoration of disturbed areas. When sensitive areas cannot be avoided during construction, implementation of MM BIO-2b would minimize the effects of erosion and the hydrologic impacts through such measures as the installation of sediment control structures and the use of water bars, silt fences, stalked straw bales, and mulching in disturbed areas. By avoiding wetlands and riparian habitats where possible, and employing avoidance and minimization measures when necessary, the Approved Project would not substantially contribute to the cumulative damage to these habitats (Class II).

The Approved Project falls under the jurisdiction of local policies and ordinances, including the Roadside Tree Ordinance. In order to install tubular steel poles (TSPs) and light-weight steel poles (LWSPs), the Approved Project would require the construction of access roads and the removal of vegetation at construction sites, permanently and directly damaging trees. The Final

EIR requires SCE to adopt MM BIO-4a and obtain a permit for tree removal prior to construction. By complying with the permit process, the Approved Project would not significantly contribute to the cumulative impact on local tree populations (Class II).

The Approved Project would require the installation of roadways for maintenance purposes. New roadways, construction activities, and introduced structures can act as barriers to migration. These roadways would be used infrequently and, therefore, would not interfere significantly in migration patterns. Construction activities could potentially impact migration patterns, but are considered temporary. Given the distribution of the structures and the low volume of traffic required to maintain the Approved Project, this would not significantly contribute to cumulative obstacles to migratory wildlife (Class III).

4.3.2 Impacts of the Proposed Modifications

The Proposed Modifications would occur within the Western Riverside County MSHCP area. Other than a few residential/commercial projects in the vicinity that are exempt from the MSHCP, projects with the potential to "take" special-status plant and wildlife species would obtain coverage through demonstration of MSHCP consistency as needed. Other mechanisms for take of listed species for projects not subject to the MSHCP or for those projects that do not participate in the MSHCP, are available through various processes with the United States (U.S.) Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW). In addition, the Proposed Modifications and other projects would be consistent with the Stephens' Kangaroo Rat Habitat Conservation Plan (HCP). Therefore, through MSHCP and Stephens' Kangaroo Rat HCP consistency, or other take mechanisms, the Proposed Modifications, in conjunction with the cumulative projects in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications*, would not result in significant cumulative impacts pertinent to conflicts with regional habitat conservation plans. This would be consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

Installation of additional poles, use of new temporary construction areas, and construction of the access road design changes could potentially result in additional areas of permanent loss of or temporary disturbance to sensitive plant and wildlife communities, impacts to avian species, disturbance of active nests when trimming trees or removing vegetation, and impacts to additional wetlands and riparian habitats. SCE would implement MMs BIO-1a through BIO-1i, BIO-2a, BIO-2b, and BIO-4a of the Final EIR to reduce impacts, as revised in *Table 2-5: Proposed MM and APM Modifications* in *Chapter 2 – Project Modifications*. MM BIO-1a, -1b, -1e, -1h, and -2a have been revised in part, but continue to be effective in reducing impacts to biological resources to less-than-significant levels. Further, SCE has added BIO-APM 15, BIO-APM 16, and BIO-APM 17 as part of this PMR to address impacts to Stephens' kangaroo rat, MSHCP Additional Reserve Lands, and wildlife movement, respectively. The revised and added measures are discussed in detail in *Chapter 2 – Proposed Modifications* and *Section 3.3 Biological Resources*. None of the proposed revisions or additions will increase the significance levels or severity of impacts presented for the Proposed Modifications.

The Approved Project with Proposed Modifications and cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* would also be subject to the requirements of the Migratory Bird Treaty Act, applicable USFWS, CDFW, U.S. Army

Corps of Engineers (USACE), and State Water Resources Control Board (SWRCB)/Regional Water Quality Control Board (RWQCB) permit requirements for impacts to special-status wildlife and hydrologic features, and local tree removal ordinances. As such, compliance with applicable local, state, and federal regulations by both the Approved Project, including the Proposed Modifications, and the other cumulative projects in the vicinity would further ensure that cumulative impacts to biological resources would be reduced to a less-than-significant level, consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

Access road design changes, additional poles, and construction activities as described in *Chapter 2 – Proposed Modifications* can act as barriers to local wildlife movement. The access road design changes would not increase the frequency of use of the access roads and, therefore, would not interfere significantly with wildlife movement. In addition, retaining walls would be designed to avoid impacts to wildlife movement and would be subject to review pursuant to the MSHCP. This includes minimizing the length of retaining walls and orienting the walls so that wildlife movement is not impeded for an extended period of time. Final design of retaining walls would be coordinated with the RCA, USFWS, and CDFW to ensure that impacts to wildlife movement would not occur. Although additional poles would be installed along the subtransmission line, local wildlife would be able to move around the poles.

In addition to local wildlife movement, the Proposed Modifications (additional construction activities associated with access road design changes, pole installation, retaining walls) could also potentially impact migration patterns, but are considered temporary. SCE would implement MMs BIO-1a (revised), BIO-1c, and BIO-1d to reduce the potential for impacts to local wildlife movement and migratory patterns. The large residential developments included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* could significantly impact local and migratory wildlife patterns. However, with the implementation of MMs, the Proposed Modifications would not substantially contribute to cumulative impacts to local and migratory wildlife, consistent with the Final EIR's assessment of Class III (Less than Significant).

The Approved Project with Proposed Modifications and cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* would also be subject to the requirements of the Migratory Bird Treaty Act, applicable USFWS, CDFW, USACE, and SWRCB/RWQCB permit requirements for impacts to special-status wildlife, hydrologic features, and local tree removal ordinances. As such, compliance with applicable local, state, and federal regulations by both the Approved Project, including the Proposed Modifications, and the other cumulative projects in the vicinity, would further ensure that cumulative impacts to biological resources would be reduced to a less-than-significant level, consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

4.4 CULTURAL RESOURCES

4.4.1 Final EIR Determinations

All of the cumulative projects considered in the Final EIR would result in earth-disturbing activities and, therefore, would have the potential to affect cultural and paleontological resources adversely. Thirty-seven known cultural resource sites have been identified along the Approved Project route. As previously stated, construction activity threatens to disturb these sites.

However, with the implementation of MMs CUL-1a through CUL-1c, the Final EIR concluded that the Approved Project would not result in significant impacts to cultural resources. The MMs specify that Environmentally Sensitive Areas (ESAs) would be identified and provided with a no-construction buffer zone; a Cultural Resources Treatment Plan would be developed prior to construction outlining guidelines for handling resources encountered during construction; and construction monitoring would be provided by a qualified local archaeologist. With these precautions, the Approved Project would not contribute substantially to cumulative impacts on cultural resources by disturbing or damaging sites (Class II).

Construction activities would have the potential to damage unique paleontological resources. Although the Approved Project would cross sensitive geological units that could contain paleontological resources, MM CUL-3a—which would require monitoring for fossils during construction over these geological units by a qualified local archaeologist—would minimize the risk of impacts to a less-than-significant level. By minimizing the risk of damaging paleontological artifacts, the Approved Project would not contribute substantially to cumulative impacts regarding unique paleontological resources or unique geologic features (Class II).

4.4.2 Impacts of the Proposed Modifications

Thirty-seven cultural resources, including six resources addressed in the Final EIR, have been identified along the modified subtransmission line route. SCE would minimize impacts to these cultural resources with the implementation of MM CUL-1a, the modified MM CUL-1b, and MM CUL-1c, which require avoiding ESAs; preparing a Construction Phase Management Plan that does not deviate from the basic requirements of the Cultural Resources Treatment Plan; and provides additional detail for the identification and management of cultural resources, and monitoring for cultural resources during construction at prehistoric sites located within 400 feet of ground-disturbing activities with the exception of P-33-000714, which would have a buffer of approximately 1,000 feet. The Alberhill System Project would not impact cultural resources or cause a substantial adverse change in the significance of historic resources. The impacts to cultural resources related to the other cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* are not available; however, due to the earth-moving associated with these projects, they have the potential to generate significant impacts. It is anticipated that these projects would implement avoidance and minimization measures, similar to MMs CUL-1a through CUL-1c. As a result, the Proposed Modifications would not substantially contribute to cumulative impacts to cultural resources, which is consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

Construction of the Proposed Modifications has the potential to significantly impact paleontological resources within sensitive geological units that could contain paleontological resources. Other cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* that are located within the Silverado Formation have the potential to significantly impact paleontological resources. SCE would implement MM CUL-3a, which includes paleontological monitoring, to minimize the impact on paleontological artifacts to a less-than-significant level. Therefore, the Proposed Modifications would not have a cumulatively considerable impact on paleontological resources or unique geologic features, which is consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

4.5 GEOLOGY, SOILS, AND MINERAL RESOURCES

4.5.1 Final EIR Determinations

The Final EIR determined that construction activities would include grading of pole sites and access roads, which would have the potential to cause erosion and sedimentation. This would contribute to the geological impacts of recent, concurrent, and projected construction projects in the area. To minimize the effect of construction on topsoil, SCE would employ best management practices (BMPs) and implement APM GEO-SCE-3 which mandates the adoption of a Storm Water Pollution Prevention Plan (SWPPP) including soil erosion, sediment containment, and water quality protection measures. In conjunction with the SWPPP, MM GEO-2a would require an erosion and sediment control plan including site maps, identification of construction activities, and measures for providing erosion and sediment control. With these measures, the Approved Project would not substantially contribute to cumulative impacts through soil erosion and sedimentation (Class II).

Structural elements of the Approved Project are susceptible to damage from both seismic activity and soil instability, which would have the potential to lead to liquefaction or landslides. Unstable structures would pose a danger to both construction workers and the public, as seismic activity and soil instability would have the potential to lead to partial or total collapse. SCE had proposed APM GEO-SCE-2 to prevent accidents related to earthquakes or soil instability, which requires the preparation of a geotechnical study to identify site-specific geologic conditions and incorporation of the recommendations from the geotechnical study into the final design. SCE would also implement MMs GEO-1b and GEO-3a, which would require that site-specific seismic analyses be submitted to the CPUC 60 days prior to construction and a geotechnical investigation to ensure that the engineering design avoids geological hazards. SCE would be required to conduct surveys to ensure that pole locations avoid all sites deemed susceptible to fault surface ruptures. With the implementation of the APMs and MMs, the Approved Project would not substantially contribute to cumulative impacts by constructing structures on land susceptible to seismic hazards or hazards relating to soil instability (Class II).

4.5.2 Impacts of the Proposed Modifications

The increased number of poles, access road design changes, and use of temporary construction areas would increase the amount of grading required, which has the potential to cause erosion and sedimentation. SCE would implement BMPs and APM GEO-SCE-3 to minimize the effect of construction on topsoil. Each of the cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* would result in the disturbance of over one acre, which would require the preparation of a SWPPP for construction activities in accordance with the SWRCB National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. With the implementation of these measures, the Proposed Modifications in conjunction with the cumulative projects would not result in a significant cumulative impact from soil erosion and sedimentation, which is consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

Structural elements of the Proposed Modifications are susceptible to damage from both seismic activity and soil instability, which can lead to liquefaction or landslides. SCE would implement APM GEO-SCE-2, MM GEO-1b, and MM GEO-3a to prevent failure of the structural components due to seismic activity or soil instability. In addition, SCE would conduct surveys to ensure that pole locations avoid all sites deemed susceptible to fault surface ruptures. With the implementation of these APMs, MMs, and standard measures, the Proposed Modifications would not substantially contribute to cumulative impacts by constructing structures on land susceptible to seismic hazards or hazards relating to soil instability, which is consistent with the Final EIR's assessment of Class II.

4.6 HYDROLOGY AND WATER QUALITY

4.6.1 Final EIR Determinations

The Final EIR determined that construction of the Approved Project would require the grading and excavating of access roads, installation of poles and underground conduits, and the removal of vegetation to lay foundations and meet safety codes. These activities would have the potential to impact water quality through drainage and erosion, deplete groundwater sources and increase wastewater through the creation of impervious surfaces, and may damage drainage systems though sediment runoff. SCE proposed APMs HYDRO-SCE-1 through HYDRO-SCE-4 to prevent a cumulatively significant impact to water quality, groundwater, and drainage systems. In the APMs, SCE would take preventative steps and would prepare response plans in the case of accidental contamination of hydrological features, including adopting a SWPPP, minimizing erosion and sedimentation during construction, preparing an environmental education and monitoring program, regulating high spill risk activities, and drafting dewatering plans with measures, such as sediment traps and sediment basins. To ensure that the APMs meet regulations, the Final EIR recommended the implementation of MMs HYD-5a and HYD-5b. Given the APMs and MMs described previously, the Approved Project would not substantially contribute to cumulative impacts to water quality, groundwater, and drainage systems (Class II).

Some of the poles required for the Approved Project would be located in federally designated 100-year floodplains. Adverse effects of construction on floodplains would include displacement, and underground portions of the Approved Project that would pass through floodplains would be engineered to withstand the hydraulic forces of flooding. MMs HYD-7a and HYD-7b outlined steps to minimize the impacts of the Approved Project so as not to impede or redirect a 100-year floodplain. These would require that, 60 days prior to construction, SCE submit to the CPUC an engineering plan that either avoids the flow path or, where avoidance is not practicable, employs appropriate measures, such as raised foundations. In addition, the MMs stipulated that all National Flood Insurance Regulations would be followed. By implementing MMs HYD-7a and HYD-7b, the Approved Project would not substantially contribute to cumulative impacts to flood paths within a 100-year floodplain (Class II).

4.6.2 Impacts of the Proposed Modifications

Construction of the Proposed Modifications would require additional grading and excavating for access road design changes, installation of additional poles and underground conduits, and the removal of additional vegetation for pole foundations. These activities have the potential to

impact water quality through drainage and erosion and increase wastewater through the creation of impervious surfaces, and may damage drainage systems though sediment runoff. In order to minimize potential impacts to water quality, groundwater, and drainage systems, SCE would implement APM HYDRO-SCE-1 through HYDRO-SCE-4, and MM HYD-5a. The cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* have the potential to significantly impact water quality, increase wastewater, and may damage drainage systems. These projects would be required to prepare a SWPPP; however, there is still the potential for significant cumulative impacts. With implementation of the APMs and MMs, the Proposed Modifications would not substantially contribute to cumulative impacts to water quality, groundwater, and drainage systems, which is consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

The Segment 4, 5, and 8 realignments would be located in federally designated 100-year floodplains. Adverse effects of construction on floodplains would include displacement, and Proposed Modifications that pass through floodplains must be engineered to withstand the hydraulic forces of flooding. SCE would implement MMs HYD-7a and HYD-7b, described previously, to not impede or redirect a 100-year floodplain. Some of the projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* would also be located in 100-year floodplains; however, these projects would be required to be designed to minimize flood risk and damage in accordance with the National Flood Insurance Program building requirements for buildings in flood hazard areas. With the implementation of the MMs the Proposed Modifications in conjunction with the cumulative projects would not have a significant cumulative impact a 100-year floodplain, which is consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

4.7 HAZARDS AND PUBLIC SAFETY

4.7.1 Final EIR Determinations

The Final EIR determined that construction and operation of the Approved Project would require the use of hazardous materials that could potentially be released into the environment in the event of an accident. These hazardous materials include gasoline, diesel fuel, oil, and lubricants. In addition, the installation of LWSPs and TSPs would involve boring holes in areas where underground natural gas lines are present; this raised the potential of striking a line and releasing natural gas into the environment. SCE proposed APMs HAZ-SCE-1 and HAZ-SCE-4 to reduce the risk of spills and to ensure that proper response measures were in place for cleanup in the event of accidental release. Furthermore, the Final EIR included MM HAZ-2a, which would require SCE to precisely locate all natural gas lines as part of the siting and engineering process, to avoid hitting natural gas lines when installing power line poles. The likelihood of a release of hazardous materials as a result of construction and operation of this Approved Project was low; therefore, the Approved Project contribution to a potential cumulative hazardous material impact would be less than significant after mitigation (Class II).

The subtransmission line would traverse areas with an extreme wildland fire threat to people. The Approved Project, particularly during construction, presents the risk of both starting fires and slowing emergency response times. APMs HAZ-SCE-2 and HAZ-SCE-3 would lessen the risk of fire by regulating construction activities and ensuring response systems are in place.

According to a representative of the California Department of Forestry and Fire Protection, the Approved Project would not impede aerial emergency response during fire-fighting activities. The cumulative impact to fire risk and emergency response times would be less than significant. For these reasons, the Approved Project would not contribute substantially to these potential hazardous materials or public safety cumulative impacts (Class II).

4.7.2 Impacts of the Proposed Modifications

Construction and operation of the Proposed Modifications would require the use of additional quantities of hazardous materials, including gasoline, diesel fuel, oil, and lubricants due to the increase in the number of poles and conversion to underground that could potentially be released into the environment in the event of an accident. The installation of additional LWSPs and TSPs and underground conduit involves boring holes and trenching in more areas where underground natural gas lines are present, which raises the potential to strike a line and release natural gas into the environment. SCE would implement APMs HAZ-SCE-1, HAZ-SCE-4, and MM HAZ-2a to reduce the risk of spills, ensure proper response measures are in place for clean-up in the event of accidental release, and to avoid hitting natural gas lines when installing power line poles. The likelihood of release of hazardous materials as a result of construction and operation of the Proposed Modifications is low. The cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* may also require the use of similar hazardous materials during construction and may have the potential to strike underground utilities during excavation. These projects would disturb more than one acre and, therefore, the preparation of a SWPPP is necessary to address potential spills of hazardous materials. In addition, prior to excavation activities, developers are required to call the Underground Service Alert to locate utilities in the area. Therefore, with implementation of the APMs, MM HAZ-2a, and standard measures, the Proposed Modifications in conjunction with the cumulative projects would not have a significant cumulative impact on hazards or public safety, which is consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

The segment realignments traverse areas with an extreme wildland fire threat to people. Construction and maintenance activities along the subtransmission line route present a risk of both starting fires and slowing emergency response times. SCE would implement APMs HAZ-SCE-2 and HAZ-SCE-3 to lessen the risk of fire. In addition, the Proposed Modifications would include the installation of TSPs and LWSPs similar to the Approved Project, and therefore would not impede aerial emergency response during fire-fighting activities. The projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* have the potential to significantly increase the risk of impacts due to fire and slowing of emergency response times. However, with the implementation of APM HAZ-SCE-2 and HAZ-SCE-3, the Proposed Modifications would not contribute substantially to potential cumulative impacts associated with hazards or public safety, which is consistent with the Final EIR's assessment of Class II (Less than Significant after Mitigation).

4.8 RECREATION

4.8.1 Final EIR Determinations

The Approved Project would not contribute to cumulative impacts on parks and other recreational facilities. The Approved Project would not contribute to population growth in the area. In addition, the proposed subtransmission line would not cross existing or planned park facilities. Therefore, the Approved Project would not contribute to cumulative recreational impacts in the area (Class III).

4.8.2 Impacts of the Proposed Modifications

Construction and operation of the Proposed Modifications would not result in significant impacts to recreation. The Proposed Modifications would not cause population growth that would result in the increased use of existing parks or require the construction of new recreation facilities. Construction of the Proposed Modifications would result in temporary lane and/or roadway closures during pole installation and conductor stringing, which would result in disrupted access to Alberhill Ranch Community Park and Jungle Island Paintball Park. However, these disruptions would be temporary, and park closure is not anticipated. No other projects are expected to occur along the access routes to the same parks during the same construction period. The residential development projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* have the potential to cause population growth that would result in the increase use of existing parks, and some include construction of new recreational facilities. As a result, these projects would have a potentially significant cumulative impact on recreational resources. However, the Proposed Modifications would not contribute substantially to potential cumulative impacts on recreational resources, which is consistent with the Final EIR's assessment of Class III.

4.9 AIR QUALITY

4.9.1 Final EIR Determinations

Total daily emissions of nitrogen oxides (NO_x), volatile organic compounds, particulate matter less than or equal to 10 microns in diameter (PM_{10}), and particulate matter less than or equal to 2.5 microns in diameter from construction activities would exceed Southern California Air Quality Management District (SCAQMD) thresholds. The result is a cumulatively considerable net increase of criteria pollutants for which the region would be in nonattainment status under an applicable federal or state ambient air quality standard. Approved Project construction and operational emissions would also exceed the "net zero" threshold for greenhouse gas (GHG) emissions; this would also result in significant cumulative impacts. Although these air quality impacts could be reduced, impacts would not be mitigated to less-than-significant levels. Therefore, the Approved Project would contribute substantially to significant cumulative air quality impacts (Class I).

4.9.2 Impacts of the Proposed Modifications

The Proposed Modifications would not result in a new significant impact on air quality during construction and operation and maintenance with the implementation of APMs and MMs.

Construction of the Proposed Modifications, in conjunction with the projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* that could potentially occur at the same time, have the potential to generate considerable net increases in NO_x and PM_{10} emissions. Although the Proposed Modifications and cumulative projects would be required to implement the SCAQMD's Rule 403 and comply with the California Air Resources Board's Off-Road Idling Policy to reduce emissions, cumulative impacts from these emissions during construction are expected to remain significant, which is consistent with the Final EIR's assessment of Class I (Significant and Unavoidable).

Emissions during operation of the Proposed Modifications would be limited to those produced from vehicles during site visits, routine maintenance, or emergency repairs. SCE currently operates existing facilities adjacent to the Proposed Modifications; these activities would not change following construction. The cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* would result in emissions during operation from the Sun Valley Energy Center Project natural gas power plant, increased vehicle traffic on I-15 and I-215, and vehicle traffic associated with residential and commercial development. Impacts have the potential to be cumulatively significant. As discussed previously, operation of the Proposed Modifications would not result in a new significant cumulative impact on air quality.

GHG emissions would result from the construction and operation of the Proposed Modifications; however, these emissions would not result in significant impacts. When the Final EIR was prepared, no applicable threshold for GHG emissions during construction or operation and maintenance was available. As a result, the emissions in the Final EIR were compared against a very conservative "net zero" threshold, in which any emission of GHG is considered significant. Since the preparation of the Final EIR, the SCAQMD has released an interim annual threshold of 10,000 metric tons (MT) of carbon dioxide equivalent (CO_2e) for industrial projects. As discussed in *Section 3.9 Air Quality*, the total of amortized construction emissions and annual operational GHG emissions associated with the Proposed Modifications would be approximately 6,595 MT of CO_2e. This estimate is lower than the SCAQMD interim annual threshold of 10,000 MT of CO_2e. Because the GHG emissions of the Proposed Modifications would be less than the SCAQMD's significance threshold and result in a less than significant increase in GHG emissions, the Proposed Modifications' contribution to significant cumulative GHG impacts would be less than significant (Class III).

4.10 NOISE

4.10.1 Final EIR Determinations

SCE proposed a number of measures in the Final EIR to reduce noise impacts due to construction. APMs NOISE-SCE-1 through NOISE-SCE-6 would mandate that SCE limit construction hours; be mindful of potentially affected residents and schools in the vicinity; and use sound reduction features, including mufflers, engine shrouds, sound walls, and noise blankets. MM NOISE-1a would require that SCE's construction activities comply with county and city regulations. Even with the implementation of the APMs and MM NOISE-1a, construction of the Approved Project would generate noise in excess of local policies and

ordinances. However, the general plan policies are stated as goals. Therefore, construction of the Approved Project would not substantially contribute to cumulative noise impacts (Class II).

4.10.2 Impacts of the Proposed Modifications

Residential and commercial development would involve large-scale construction projects that would result in varying amounts of construction noise and the introduction of new permanent noise sources. Short-term construction noise impacts from the Proposed Modifications could overlap with cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications*; however, this noise would be temporary, short-term, and dispersed due to the linear nature of the Proposed Modifications. Pole installation would take approximately one to two days at each location, so any overlap with other construction projects in the vicinity would be short in duration. In addition, although the noise impacts from the cumulative projects are unknown, it is expected that the developers would be required to implement measures similar to those implemented for the Proposed Modifications to reduce noise impacts in conformance with local noise regulations. Therefore, with the implementation of the APMs and MM, the Proposed Modifications in conjunction with the cumulative projects would not result in significant cumulative noise impacts, which is consistent with the Final EIR's assessment of Class II.

4.11 TRANSPORTATION AND TRAFFIC

4.11.1 Final EIR Determinations

The Final EIR determined that the Approved Project would not result in significant transportation and traffic impacts to this roadway network that could not be mitigated. The Approved Project's potential impacts would occur only during the construction period and, therefore, would be temporary. These impacts are considered less than significant. Potential damage to roadways would be mitigated to a less-than-significant level. Although the traffic levels on the area's roadway network are heavy, the Approved Project would not substantially contribute to cumulative transportation and traffic impacts due to the fact that they are temporary (Class II).

4.11.2 Impacts of the Proposed Modifications

Construction and operation of the Proposed Modifications would not result in significant impacts to transportation. During construction, cumulative traffic impacts could occur from the cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications*. The traffic generated by the Proposed Modifications would be dispersed along the subtransmission line. Potential damage to roadways would be mitigated to a less-than-significant level with the implementation of MM TRANS-8a, which requires the repair of roadways damaged by construction activities. Furthermore, the future residential and commercial projects would be required to coordinate with the local jurisdiction through the encroachment permit process to address lane closures, and the jurisdictional agencies would evaluate and address the potential for cumulative traffic impacts through the permitting process. The traffic impacts from the cumulative projects are unknown, but have the potential to be cumulatively significant. Given the scope and size of the Proposed Modifications compared to the projects listed in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications*, the Proposed

Modifications' contribution to potentially significant cumulative transportation and traffic impacts would be less than significant with the implementation of MM TRANS-8a, which is consistent with the Final EIR's assessment of Class II.

4.12 PUBLIC SERVICES AND UTILITIES

4.12.1 Final EIR Determinations

The Final EIR determined that the Approved Project would not increase the demand for public services. Construction of the Approved Project would not require an increase in population nor would it induce population growth; as such, there would be no increase in demand for public services, including police, fire, and emergency services. Further, by employing BMPs and APMs outlined in *Section 3.7 Hazards and Public Safety*, the Approved Project would not interfere with public services. The Approved Project would not affect water utilities, including disrupting or altering water and wastewater treatment facilities, storm water drainage systems, water supply levels, wastewater capacity levels, and the ability to meet wastewater requirements. Preventative measures were described in *Section 3.6 Hydrology and Water Quality* of the Final EIR to ensure that impacts to water systems and utilities would be less than significant. The Approved Project would not violate waste or landfill regulations as the Approved Project would not generate a large amount of waste. Therefore, the Approved Project would not substantially contribute to significant cumulative impacts on public services and utilities by disruption or alteration (Class III).

4.12.2 Impacts of the Proposed Modifications

An emergency could arise as a result of construction of the Proposed Modifications that would require fire or police protection, or emergency services. If multiple emergencies were to occur at several construction sites, there could be a cumulative impact on local public services. However, the probability of a single emergency incident is low, and the probability of simultaneous emergencies at multiple construction sites is even lower. In addition, the proposed subtransmission line route spans several jurisdictions, and there are many emergency service providers in the cumulative impact analysis area. It is not expected that there would be a significant cumulative impact that would tax the existing emergency services beyond their current capabilities. As a result, the Proposed Modifications in conjunction with the cumulative projects would not result in significant cumulative impacts to public services, which is consistent with the Final EIR's assessment of Class III.

Cumulative impacts to utilities or service systems have the potential to occur if multiple projects have a combined impact on local utility services or infrastructure. During construction, all projects would be required to manage storm water on site to comply with regional water quality requirements. The proposed subtransmission line would result in minimal new impervious surfaces for additional pole foundations. Therefore, the Proposed Modifications in conjunction with the cumulative projects would not result in significant cumulative impacts to storm water drainage, which is consistent with the Final EIR's assessment of Class III.

Local area landfills could be impacted due to the increased cumulative need for disposal of additional construction debris. The Proposed Modifications would generate limited quantities of

construction waste, much of which can be recycled or salvaged. The amount of daily construction waste from the projects listed in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* is not available; however, in total, the landfills near the Proposed Modifications reached less than approximately 0.1 percent of their permitted daily capacities in 2009. The operation and maintenance of the Proposed Modifications would not significantly differ from existing conditions, and would generate a very small amount of waste. Because local landfills have sufficient capacity, the Proposed Modifications in conjunction with the cumulative projects would not result in significant cumulative impacts to landfill access and capacity, which is consistent with the Final EIR's assessment of Class III.

Increased electrical demand would occur as a result of the projects listed in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications*. However, the Proposed Modifications would have a positive impact on the existing electrical system by providing more reliable power to area residents and businesses. Therefore, the Proposed Modifications would not contribute to a potentially significant cumulative impact on the electrical system.

4.13 AGRICULTURE

4.13.1 Final EIR Determinations

There were approximately 433,879 acres of designated farmland within Riverside County in 2008, and the number of acres of farmland in the county is shrinking.[2] The Approved Project would only impact approximately 2.72 acres of Important Farmland. The Approved Project would not have a significant contribution to cumulative agricultural impacts in the county (Class III).

4.13.2 Impacts of the Proposed Modifications

The Proposed Modifications would permanently disturb between approximately 19.61 and 22.54 additional acres of Prime Farmland, Unique Farmland, and Farmland of Local Importance. However, the portion of the Proposed Modifications that fall within Prime Farmland and Farmland of Statewide Importance would be constructed within an existing utility corridor. Furthermore, as described in *Section 3.13 Agriculture*, the total area of permanent impact represents less than approximately 0.01 percent of the approximately 433,879 acres of designated agricultural land in Riverside County. The proposed subtransmission line route does not cross agricultural lands currently under Williamson Act contract. As a result, there would be no impact from the Proposed Modifications on Williamson Act lands. The Alberhill System Project would not be located on designated farmland or land under Williamson Act contract. The amount of farmland impacts from the other cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* is not available; therefore, these projects have the potential to result in significant cumulative impacts to agriculture. The placement of

[2] The Final EIR reported that there are approximately 180,178 acres of lands designated as agricultural in Riverside County. According to the California Department of Conservation, there were approximately 444,455 acres of designated agricultural lands in Riverside County in 2006. In 2008, there were approximately 433,879 acres of designated agricultural lands.

subtransmission poles and the construction of access road design changes on land currently under agricultural production would not affect the status of the agricultural land zoning. Public utility uses are considered compatible with zoning for these agricultural lands, according to the jurisdictions that would be crossed by the Proposed Modifications. As a result, there would be no impact from the Proposed Project on existing zoning. When compared to the approximately 16,910 acres of agricultural land lost in Riverside County between 2008 and 2010, the Proposed Modifications' contribution to potential cumulative impacts to agricultural resources would be less than significant, which is consistent with the Final EIR's assessment of Class III (Less than Significant).

In addition, the Segment 4, 5, and 7 realignments would cross approximately 0.19 mile of forest land, land designated as Southern Cottonwood/Willow Riparian Forest and Coastal Live Oak Woodland. The Segment 4, 5, and 7 realignments would result in the conversion of approximately 1.36 acres of forest land to non-forest use through the acquisition of a new right-of-way, which is not considered significant given that there are approximately 112.70 acres of forest land surveyed within 500 feet of the proposed subtransmission line. In addition, the access road design changes and pole installation would permanently convert between approximately 0.40 and 0.46 acre of forest land to non-forest use. There is no timberland or timberland zoned Timber Production located in the vicinity of the Proposed Modifications. The amount of forestry resources impacted by the cumulative projects in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* is not available; therefore, these projects would have potentially significant cumulative impacts on forestry resources. Given the size of the impacts to forest land from the Proposed Modifications, as compared to the amount of forest land within 500 feet of the proposed subtransmission line route, the Proposed Modifications' contribution to potential cumulative impacts to forestry resources would be less than significant (Class III).

4.14 POPULATION AND HOUSING

4.14.1 Final EIR Determinations

The Approved Project would not contribute to population growth and, therefore, would not result in an increased demand on the current or future housing in the region. The Approved Project would not require an influx of new workers who would need to temporarily or permanently relocate to the area. Therefore, the Approved Project would not contribute to cumulative significant impacts on population and housing (Class III).

4.14.2 Impacts of the Proposed Modifications

Construction and operation of the Proposed Modifications would not result in impacts to population and housing. The cumulative projects included in *Table 4-1: Cumulative Projects within One Mile of the Proposed Modifications* include large-scale residential development that would result in significant cumulative impacts on population and housing. However, the Proposed Modifications would not contribute to significant cumulative impacts on population and housing, which is consistent with the Final EIR's assessment of Class III.

4.15 SUMMARY

As indicated in *Table 4-2: Significance of Impact Changes – Cumulative Impacts*, the Proposed Modifications would not significantly increase the severity of effects nor change the impact determinations associated with cumulative impacts in the Final EIR. Therefore, the significance levels for impacts identified in the Final EIR would not change as a result of the Proposed Modifications.

Table 4-2: Significance of Impact Changes – Cumulative Impacts

Resource Area	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[3]
Land Use	Class I (Significant and Unavoidable)	Class I (Significant and Unavoidable)	None	None
Visual Resources	Class I (Significant and Unavoidable)	Class I (Significant and Unavoidable)	APM AES-SCE-1 APM AES-SCE-2 APM AES-SCE-3 APM AES-SCE-4	APM AES-SCE-1 APM AES-SCE-2 (revised) APM AES-SCE-3 APM AES-SCE-4 (revised)
Biological Resources	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM BIO-1a MM BIO-1b MM BIO-1c MM BIO-1d MM BIO-1e MM BIO-1f MM BIO-1g MM BIO-1h MM BIO-1i MM BIO-2a MM BIO-2b MM BIO-2c MM BIO-4a	MM BIO-1a (revised) MM BIO-1b (revised) MM BIO-1c MM BIO-1d MM BIO-1e (revised) MM BIO-1f MM BIO-1g MM BIO-1h (revised) MM BIO-1i MM BIO-2a (revised) MM BIO-2b MM BIO-2c MM BIO-4a BIO-APM 15 BIO-APM 16 BIO-APM 17
Cultural Resources	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	MM CUL-1a MM CUL-1b MM CUL-1c MM CUL-1d MM CUL-3a	MM CUL-1a (revised) MM CUL-1b (revised) MM CUL-1c (revised) MM CUL-1d (revised) MM CUL-3a
Geology, Soils, and Mineral Resources	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM GEO-SCE-2 APM GEO-SCE-3 MM GEO-1a MM GEO-1b MM GEO-3a	APM GEO-SCE-2 APM GEO-SCE-3 MM GEO-1a MM GEO-1b MM GEO-3a

[3] Refer to *Chapter 2 – Proposed Modifications* for details on the revised measures.

Resource Area	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[3]
Hydrology and Water Quality	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM HYDRO-SCE-1 APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4 MM HYD-1a MM HYD-5a MM HYD-5b MM HYD-7a MM HYD-7b	APM HYDRO-SCE-1 (revised) APM HYDRO-SCE-2 APM HYDRO-SCE-3 APM HYDRO-SCE-4 MM HYD-1a MM HYD-5a (revised) MM HYD-7a MM HYD-7b
Hazards and Public Safety	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM HAZ-SCE-1 APM HAZ-SCE-2 APM HAZ-SCE-3 APM HAZ-SCE-4 MM HAZ-2a	APM HAZ-SCE-1 APM HAZ-SCE-2 APM HAZ-SCE-3 APM HAZ-SCE-4 MM HAZ-2a
Recreation	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Air Quality	Class I (Significant and Unavoidable)	Class I (Significant and Unavoidable)	MM AIR-1a MM AIR-1b MM AIR-1c MM AIR-1d MM AIR-1e MM AIR-5a MM AIR-6a	MM AIR-1a MM AIR-1b MM AIR-1c MM AIR-1d MM AIR-1e MM AIR-5a MM AIR-6a
Noise	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	APM NOISE-SCE-1 APM NOISE-SCE-2 APM NOISE-SCE-3 APM NOISE-SCE-4 APM NOISE-SCE-5 APM NOISE-SCE-6 MM NOISE-1a	APM NOISE-SCE-1 (revised) APM NOISE-SCE-2 APM NOISE-SCE-3 APM NOISE-SCE-4 APM NOISE-SCE-5 APM NOISE-SCE-6 MM NOISE-1a (revised)
Transportation and Traffic	Class II (Less than Significant after Mitigation)	Class II (Less than Significant after Mitigation)	TRANS-APM-1 TRANS-APM-2 TRANS-APM-3 TRANS-APM-4 TRANS-APM-5 MM TRANS-8a	TRANS-APM-1 TRANS-APM-2 (revised) TRANS-APM-3 TRANS-APM-4 TRANS-APM-5 MM TRANS-8a
Public Services and Utilities	Class III (Less than Significant)	Class III (Less than Significant)	None	None

Resource Area	Final EIR Impact Level of Significance	Impact Level of Significance with Proposed Modifications	Final EIR: Applicable APMs/MMs	Proposed Modifications: Applicable APMs/MMs[3]
Agriculture	Class III (Less than Significant)	Class III (Less than Significant)	None	None
Population and Housing	Class III (Less than Significant)	Class III (Less than Significant)	None	None

Source: CPUC, 2010

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