SOUTHERN CALIFORNIA EDISON'S DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Draft Environmental Impact Report

CPUC A.08-01-029
SCH#: 2008041087

Prepared for
California Public Utilities Commission

January 2010

STATE OF CALIFORNIA **ARNOLD SCHWARZENEGGER, Governor**

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

To: **State Clearinghouse, Responsible and Trustee Agencies, Property Owners, & Interested Parties**

From: **Eric Chiang, Environmental Project Manager**

Subject: **NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND PUBLIC MEETING:**
Devers-Mirage 115 kV Subtransmission System Split Project (A.08-01-029)
SCH No. 2008041087

Date: **January 7, 2010**

The California Public Utilities Commission (CPUC) has prepared a Draft Environmental Impact Report (Draft EIR) under the California Environmental Quality Act (CEQA) for consideration of Southern California Edison's (SCE) application to construct, operate, and maintain the Devers-Mirage 115 kV Subtransmission System Split Project (Proposed Project). The Draft EIR details the Proposed Project, evaluates and describes the potential environmental impacts associated with the construction, operation, and maintenance of the Proposed Project, identifies those impacts that could be significant, and presents mitigation measures which, if adopted by the CPUC, could avoid or minimize these impacts. The Draft EIR also evaluates alternatives to the Proposed Project, including the No Project Alternative, as required by CEQA.

Description of the Proposed Project.
The Proposed Project is located within central Riverside County, including portions of the cities of Palm Springs, Rancho Mirage, Palm Desert, Cathedral City, and Indian Wells, and unincorporated areas of Riverside County, including the community of Thousand Palms. See the map that follows this notice for an illustration of the project area. The Proposed Project includes the following major elements:

- replacement of approximately 5.3 miles of existing 115 kilovolt (kV) single-circuit subtransmission line with new higher capacity double-circuit 115 kV subtransmission lines and replacement of support structures within existing SCE rights-of-way (ROWs), franchise locations (public ROWs), and private property between Farrell and Garnet Substations in the City of Palm Springs;
- construction of a new 115 kV subtransmission line from Mirage Substation south to Interstate 10, adjacent to the east side of Tri-Palm Estates and within SCE's existing ROWs or franchise locations;
- looping the existing Devers-Coachella Valley 220 kV transmission line from an existing ROW to the south for approximately 0.8 mile on double-circuit lattice steel towers to Mirage Substation, located near the community of Thousand Palms;
- installation of a new 280 megavolt amperes (MVA) 200/115 kV transformer, two new 220 kV circuit breakers, and five new 115 kV circuit breakers at SCE's existing Mirage Substation; and
- subtransmission line reconfigurations at the intersections of Bob Hope Drive and Dinah Shore Drive, Portola Avenue and Gerald Ford Drive, and Varner Road and Date Palm Drive.

The Proposed Project would also include additional equipment and relay installations at Mirage, Concho**,** Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk Substations located in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of Riverside County, including the community of Thousand Palms. The Proposed Project would also include the transfer of existing fiber optic cable to new support structures and installation of new fiber optic and digital telecommunications equipment.

The objectives of the Proposed Project are to maintain electric system reliability, enhance operational flexibility, and serve projected electrical demand in the cities of Palm Springs, Rancho Mirage, Cathedral City,

Palm Desert, Indian Wells, and unincorporated areas of Riverside County, including the community of Thousand Palms. Construction of the project is proposed to begin in the second quarter of 2010 and be operational by mid-2011.

Public Comment on the Draft EIR.
The Draft EIR is available for a 45-day public comment period from January 8, 2010 through February 22, 2010. The public may present comments and concerns regarding the Proposed Project and the adequacy of the Draft EIR. Written comments on the Draft EIR must be postmarked or received by fax or e-mail no later than **February 22, 2010**. Please be sure to include your name, address, and telephone number in your correspondence.

Written comments on the Draft EIR should be sent to:

Mr. Eric Chiang
Devers-Mirage 115 kV Subtransmission System Split Project
c/o Environmental Science Associates
1425 N. McDowell Boulevard, Suite 200
Petaluma, CA 94954
Voicemail: (707) 795-0940; Fax: (707) 795-0902
E-mail: devers-mirage@esassoc.com

The CPUC will also hold a public comment meeting to receive oral and written comments from interested parties. Following the end of the public comment period, responses to all comments received on the Draft EIR and submitted within the specified 45-day review period will be prepared by the CPUC and included in a response to comments document, which together with the Draft EIR, will constitute the Final EIR for the Proposed Project. The public meeting will be held:

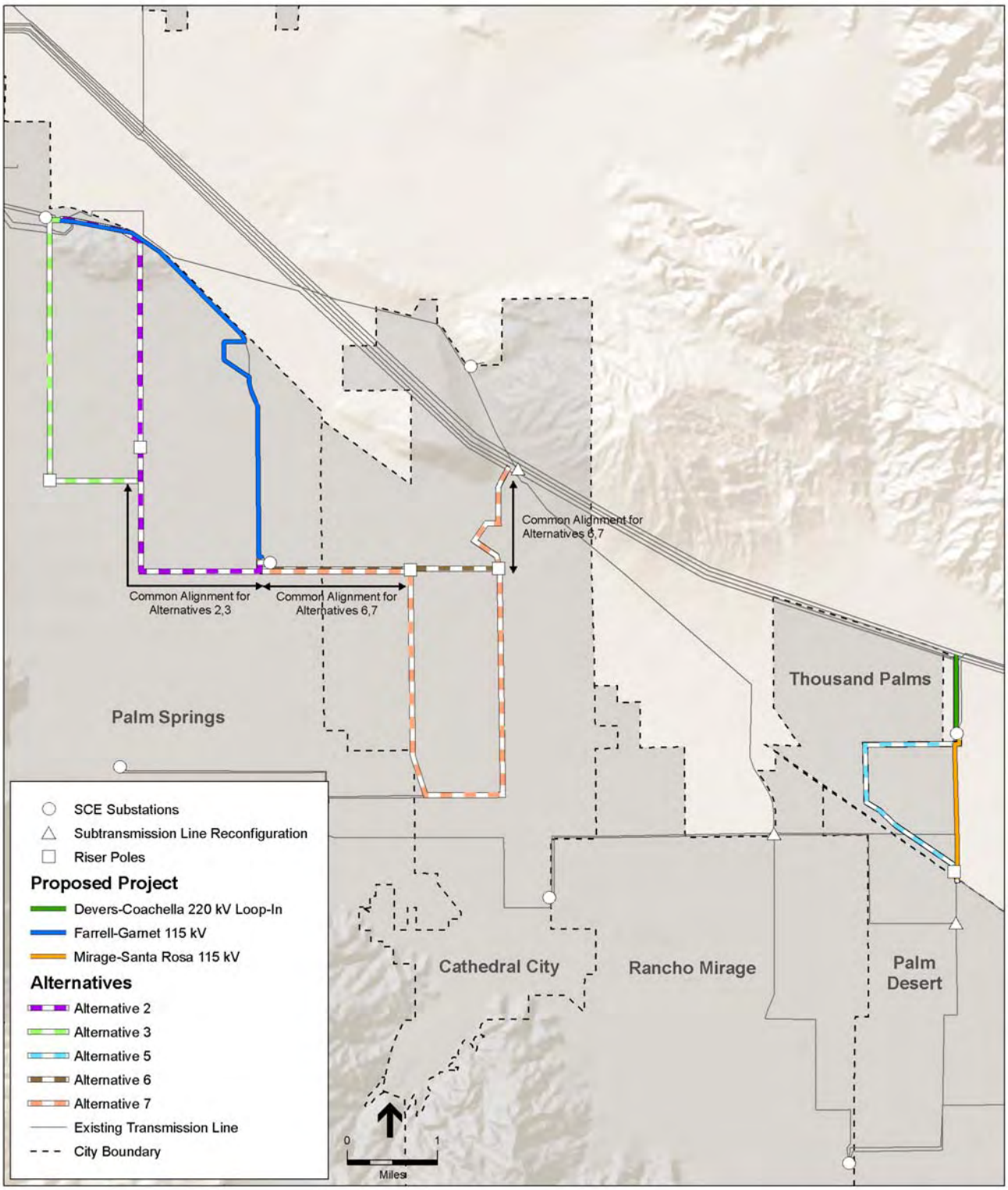
Friday January 29, 2010
6:30 pm – 8:30 pm
CSUSB Palm Desert Campus, Mary Stuart Rogers Gateway Building (Classroom RG-303)
37-500 Cook Street (b/w Gerald Ford Dr. and Frank Sinatra Dr.)
Palm Desert, CA 92211

Availability of Draft EIR.
Copies of the Draft EIR are available for public review on the project website: http://www.cpuc.ca.gov/Environment/info/esa/devers-mirage/devers.html. This website will be used to post all public documents during the environmental review process and to announce any upcoming public meetings. Hard copies or CD copies of the Draft EIR may be requested by telephone at (707) 795-0940 or by e-mail at devers-mirage@esassoc.com.

Additionally, copies of the Draft EIR are available at the following branches of the Riverside County Library:

Cathedral City Branch 33520 Date Palm Drive. Cathedral City, CA 92234-1307 Phone : (760) 328-4262	Thousand Palms Branch 31189 Robert Road Thousand Palms, CA 92276-3235 Phone: (760) 343-1556

REMINDER: Draft EIR comments will be accepted by fax, e-mail, or postmark through February 22, 2010. Please be sure to include your name, address, and telephone number.



Devers-Mirage 115 kV Subtransmission System Split Project . 207059

SOURCE: SCE, 2008

Project Overview

SOUTHERN CALIFORNIA EDISON'S DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Draft Environmental Impact Report

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Prepared for:
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

January 2010

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ESA

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EXECUTIVE SUMMARY

ES.1 Introduction / Background

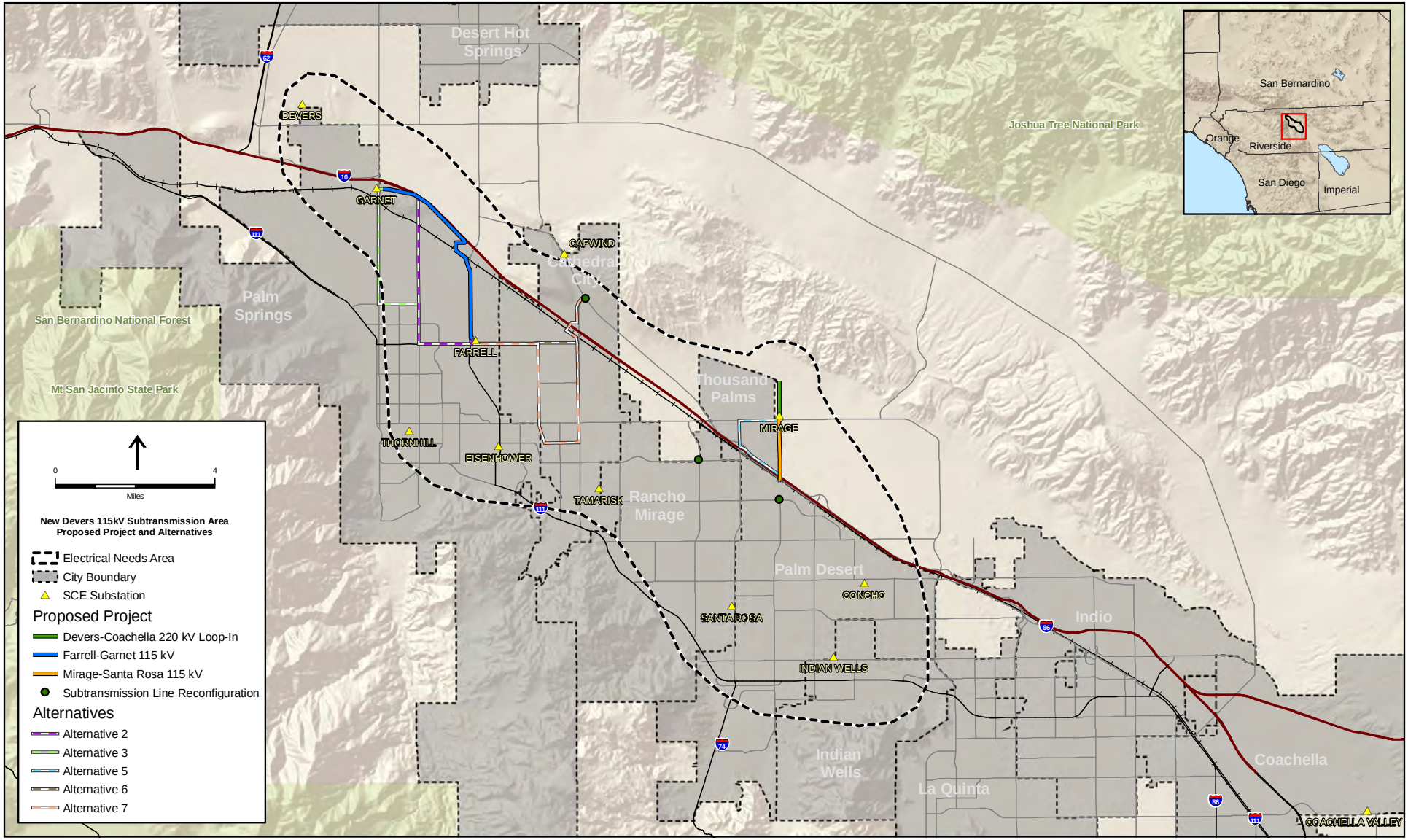
Southern California Edison Company (SCE), in its California Public Utilities Commission (CPUC) application for the Devers-Mirage 115 kV Subtransmission System Split Project (A.08-01-029), filed on January 31, 2008, seeks a Permit to Construct (PTC) electrical facilities pursuant to CPUC General Order (GO) 131-D. The application includes the Proponent's Environmental Assessment (PEA) (SCE, 2008) prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure.

The Devers-Mirage 115 kV Subtransmission System Split Project (hereinafter referred to as the Proposed Project) would serve projected electrical demand in the Electrical Needs Area, which includes the cities of Palm Springs, Rancho Mirage, Cathedral City, Palm Desert, Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community, as shown on Figure ES-1, *Proposed Project and Alternatives and Electrical Needs Area.* The primary components of the Proposed Project include two new 115 kV subtransmission line segments and a loop-in of the existing Devers-Coachella Valley 220 kV transmission line into Mirage Substation. Other components include rearrangements and modifications of subtransmission line connections, construction of substation modifications in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of Riverside County, including the Thousand Palms community, and minor modifications to existing telecommunications equipment at the Edom Hill Communications site and the Palm Springs Service Center. Construction is scheduled to begin by the second quarter of 2010, or immediately following receipt of all project approvals. The Proposed Project is scheduled to be operational by mid-2011.

This Draft EIR has been prepared pursuant to the California Environmental Quality Act (CEQA) and considers the potential environmental impacts from the Proposed Project and identifies and evaluates a range of alternatives. Based on this evaluation and the documentation which follows, this Draft EIR identifies Alternative 5 as the Environmentally Superior Alternative for the Mirage-Santa Rosa study area and Alternative 3 as the Environmentally Superior Alternative for the Farrell-Garnet study area.

ES.1.1 Proposed Project

The Proposed Project consists of a number of distinct project components that together make up the entire Proposed Project, including two new 115 kV subtransmission lines, three 115 kV reconfigurations, a 220 kV loop-in, substation modifications, and upgrades to telecommunications



SOURCE: SCE, 2008

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure ES-1

Proposed Project and Alternatives Electrical Needs Area

infrastructure. Implementation of the Proposed Project would split the existing Devers 115 kV Subtransmission System into two systems (the Devers 115 kV System and the Mirage 115 kV System).

To create the new Devers 115 kV System, the Proposed Project would include construction of the proposed new Farrell-Garnet 115 kV subtransmission line. This subtransmission line would be created by replacing approximately 5.3 miles of the existing Devers-Farrell-Windland 115 kV subtransmission line on single-circuit wood poles between Garnet Substation and Farrell Substation with new double-circuit light-weight steel (LWS) poles and tubular steel poles (TSPs). Replacement would use existing SCE right-of-way (ROW) with the exception of a 0.8-mile segment that would deviate from existing ROW just north of the Union Pacific Railroad (UPRR). The new Devers System would also be supported by the reconfigured Eisenhower-Tamarisk 115 kV subtransmission line and the reconfigured Devers-Eisenhower-Thornhill 115 kV subtransmission line. Table ES-1 provides a summary of the major components that would make up the proposed Devers 115 kV System.

To create the Mirage 115 kV System, the Proposed Project would include the construction of the proposed new Mirage-Santa Rosa 115 kV subtransmission line and reconfiguration of the existing Devers-Capwind-Mirage, Garnet-Santa Rosa, Mirage-Concho, Mirage-Tamarisk, and the Santa Rosa-Tamarisk 115 kV subtransmission lines. As a result, the following 115 kV subtransmission lines would be served from Mirage Substation: Mirage-Concho, Mirage-Capwind-Devers-Tamarisk, Mirage-Santa Rosa-Tamarisk, and the newly constructed Mirage-Santa Rosa 115 kV subtransmission line. Construction of the new Mirage-Santa Rosa line and line reconfigurations associated with the Mirage 115 kV System would occur entirely within existing SCE easements or franchise locations. Table ES-1 provides a summary of the major components and construction activities that would make up the proposed Mirage 115 kV System.

The Proposed Project would include looping in the existing Devers-Coachella Valley 220 kV transmission line into the Mirage Substation, creating the Devers-Mirage No. 2 and the Mirage-Coachella Valley 220 kV transmission lines within the existing ROW located north of Mirage Substation. Additionally, the Proposed Project would require the relocation of the existing Devers-Mirage, Julian Hinds-Mirage, and Mirage-Ramon 220 kV transmission line components within the existing ROW and at Mirage Substation. This component would include installation of a total of eight new lattice steel towers (LSTs), one TSP, and the removal of four LSTs, plus the addition of new conductors, insulators, and equipment.

The Proposed Project would add minor improvements and/or upgrades to 10 existing substations within the project area. All electrical component improvements and/or upgrades would be installed within the existing fenced perimeter surrounding each substation. All construction would take place within the existing substation fences or walls, with the exception of at Farrell Substation, where a new driveway would be constructed for permanent access. Table ES-1 provides a summary of substation modifications that would occur under the Proposed Project.

TABLE ES-1
SUMMARY OF MAJOR PROJECT COMPONENTS

Devers 115 kV System
• Install approximately 15 TSPs and approximately 142 double-circuit LWS poles between Farrell and Garnet substations • Remove 138 single-circuit wood poles • For the existing circuit, transfer 5.3 miles of existing 653 kcmil ACSR and 0.5 mile of new 653 kcmil ACSR conductor to the new double-circuit poles • Install 5.8 miles of new 954 SAC conductor on the new double-circuit poles • Install two TSPs and remove one TSP inside of Eisenhower Substation • LWS pole height: approximately 65 to 80 feet in length, of which approximately 10 feet would be buried • TSP height: approximately 70 to 100 feet tall above ground surface • New access: approximately 0.6 mile of new access roads and 0.1 mile of new spur roads
Mirage 115 kV System
• Install approximately seven TSPs, approximately 37 double-circuit LWS poles, and approximately 11 wood poles within existing SCE ROW • Remove 29 wood poles • Transfer approximately 1.5 miles of existing 653 kcmil ACSR to the new LWS and wood double-circuit poles • Install 1.5 miles of new 954 SAC and 221 kcmil ACSR on the new double-circuit poles • Replace four poles with seven poles at the intersection of Bob Hope Drive and Dinah Shore Drive • Replace one wood pole with a new double-circuit TSP at the intersection of Portola Avenue and Gerald Ford Drive • Replace six wood poles and install one new TSP and four wood poles at the intersection of Date Palm Drive and Varner Road • LWS pole height: approximately 65 to 80 feet in length, of which approximately 10 feet would be buried • TSP height: approximately 70 to 100 feet tall above ground surface
Devers-Coachella Valley 220 kV Loop-In
• Install approximately 7,240 feet of single-circuit 220 kV transmission line on six new double-circuit LSTs and two new single-circuit LSTs. The new LSTs would be strung with single 1033 kcmil ACSR conductors on new polymer insulators • Remove four LSTs and 3,770 feet of existing single-circuit 220 kV transmission line in or near the existing Devers-Coachella Valley 220 kV transmission line ROW north of the Mirage Substation • Install one new TSP and 1,000 feet of single-circuit 220 kV transmission line at Mirage Substation and rearrange the Julian Hinds 220 kV transmission line from the existing LSTs on the west side of the approximately 0.8-mile ROW to existing LSTs on the east side of the ROW • Install 1,540 feet of single-circuit 220 kV transmission line and remove 820 feet of single-circuit 220 kV transmission line between the 220 kV switchrack located inside Mirage Substation and the three LSTs and one TSP adjacent to the north fence of Mirage Substation • New access: approximately 1,320 linear feet of new access or spur roads
Devers Substation
• Replace two 115 kV circuit breakers in existing Position No. 7 for the new Devers-Eisenhower-Thornhill 115 kV subtransmission line • Replace two 115 kV circuit breakers in existing Position No. 4 for the new Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission line • Install new line protection relays
Mirage Substation
• Install one 280 MVA, 220/115 kV transformer bank, one new 220 kV bank position, one new 115 kV bank position, and one new 220 kV breaker-and-a-half configuration for two new 220 kV line positions • Install five new 220 kV circuit breakers and five new 115 kV circuit breakers • Relocate the existing Mirage-Ramon 220 kV transmission line, Julian Hinds-Mirage 220 kV transmission line, and Devers-Mirage 220 kV transmission line • Loop the Devers-Coachella Valley 220 kV transmission line into the Mirage 220 kV switchrack • Install the new Mirage-Santa Rosa 115 kV subtransmission line and relocate the existing Mirage-Concho 115 kV subtransmission line • Install new line protection relays

TABLE ES-1 (Continued)
SUMMARY OF MAJOR PROJECT COMPONENTS

Santa Rosa Substation
• Connect the Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line and the new Mirage-Santa Rosa 115 kV subtransmission line • Replace Concho-Indian Wells-Santa Rosa 115 kV line protection relays • Install new line protection relays
Eisenhower Substation
• Relocate the existing Eisenhower-Farrell 115 kV subtransmission line from Position No. 3 to existing Position No. 2 • Convert the existing Eisenhower-Devers 115 kV subtransmission line to the reconfigured Eisenhower-Devers-Thornhill 115 kV subtransmission line into existing Position No. 2 • Install the reconfigured Eisenhower-Tamarisk 115 kV subtransmission line into existing Position No. 6 • Replace the three existing 115 kV circuit breakers in existing Position Nos. 2, 3, and 6 • Install new line protection relays
Farrell Substation
• Add one 115 kV Position No. 3 and relocate the existing Farrell-Eisenhower 115 kV subtransmission line from Position No. 6 to new Position No. 3 • Relocate the existing Farrell-Devers-Windland 115 kV subtransmission line from Position No. 7 to Position No. 6, and install the new Farrell-Garnet 115 kV subtransmission line in existing Position No. 7 • Install one new 115 kV circuit breaker • Install new line protection relays
Garnet Substation
• Install the new Farrell-Garnet 115 kV subtransmission line • Install new line protection relays
Thornhill Substation
• Install the new Devers-Eisenhower-Thornhill 115 kV subtransmission line • Install new line protection relays
Tamarisk Substation
• Convert the existing Mirage-Tamarisk 115 kV subtransmission line to the new Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line • Convert the existing Santa Rosa-Tamarisk 115 kV subtransmission line to the new Devers-Capwind–Mirage-Tamarisk 115 kV subtransmission line • Convert the existing Tamarisk-Thornhill 115 kV subtransmission line to the reconfigured Eisenhower-Tamarisk 115 kV subtransmission line • Replace one 115 kV circuit breaker in existing Position No. 4 • Install new line protection relays
Concho Substation and Indian Wells Substation
• Install new line-protection relays

The Proposed Project is located in central Riverside County, as shown in Figure ES-1. The Proposed Project Electrical Needs Area includes the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community.

SCE identified the following objectives for the Devers-Mirage 115 kV Subtransmission System Split Project:

- Serve projected electrical demand requirements in the Electrical Needs Area, beginning in 2011[1];
- Maintain electrical system reliability within the Devers 220 kV Transmission System and Electrical Needs Area;
- Enhance operational flexibility by providing the ability to transfer load between subtransmission lines and substations within the Electrical Needs Area;
- Utilize existing SCE facilities and ROWs, where feasible;
- Meet projected need while minimizing environmental impacts; and
- Meet project need in a cost-effective manner.

ES.1.2 Summary of Public Involvement Activities

On Tuesday, April 15, 2008, the CPUC published and distributed a Notice of Preparation (NOP) to advise interested local, regional, and State agencies, and interested public, that an EIR would be prepared for the Proposed Project. The NOP solicited both written and verbal comments on the EIR's scope during a 30-day comment period and provided information on the forthcoming public scoping meeting. Additionally, the NOP presented the background, purpose, description, and location of the Proposed Project, potential issues to be addressed in the EIR, and contact information for additional information regarding the project.

The CPUC published legal advertisements about the scoping period in The Desert Sun on Sunday, April 20, 2008, and Sunday, April 27, 2008, as well as The Desert Post Weekly on Thursday, April 24, 2008. Additionally, an electronic copy of the NOP was posted on the CPUC's website. The comment period extended through May 15, 2008. The public was encouraged to submit written comments on the scope, content, and format of the environmental document by mail, facsimile, or electronic mail to the CPUC.

The CPUC conducted a scoping meeting on Tuesday, April 29, 2008. The public scoping meeting was held from 6:00 p.m. to 8:00 p.m. in the Mary Stuart Rogers Gateway Building at the California State University San Bernardino Palm Desert Campus at 37-500 Cook Street, Palm Desert, California. Meeting attendees were encouraged to sign in and were provided with materials including presentation slides, a comment card, and a speaker card. Copies of the NOP were available upon request. A presentation was given at the public scoping meeting that included an overview of the environmental review process, the regional context, project background, project objectives, project description, project alternatives, and role of the public comments. Following the presentation public comments were taken and documented.

[1] This objective was modified from the objective listed in the PEA to reflect the revised project schedule.

A Scoping Report was developed for use by the public to have access to and understand the comments received during the scoping period. Appendix A to this EIR contains the Scoping Report. The report includes verbal and written public comments received during the scoping period (April 15, 2008 to May 15, 2008). The NOP, newspaper legal advertisements, and the project website notification are presented in the appendices of the Scoping Report. The CPUC used this report as a tool to ensure the preparation of a comprehensive and focused EIR. Pursuant to CEQA Guidelines Section 15082, all public comments will be considered in the EIR process.

ES.1.3 Areas of Controversy / Public Scoping Issues

The following individuals and organizations submitted written comments on the scope of the EIR:

- Native American Heritage Commission
- South Coast Air Quality Management District (SCAQMD)
- California Department of Transportation, Division of Aeronautics
- US Army Corps of Engineers
- Coachella Valley Water District
- Riverside County Transportation Department
- Thomas C. MacMaster (Individual)

In addition to written comments, oral comments were also accepted during the public meeting scoping meeting held on Tuesday, April 29, 2008. The Scoping Report in Appendix A includes all written and oral comments. The overarching themes in the written and oral comments received are as follows:

- Placement of lines underground would be preferred so that lines would be out of sight;
- Air quality emissions should be quantified and compared to SCAQMD thresholds of significance;
- Impacts to cultural and archeological resources should be addressed and the CPUC should consult with local Native American tribes or persons to get input on potential project impacts;
- Project should comply with appropriate County ordinances to avoid impacts to hydrology and water quality;
- Address consistency between the Proposed Project and the Coachella Valley Multiple Species Habitat Conservation Plan;
- Potential impacts to the Palm Springs Airport should be addressed; and
- Traffic impacts should be addressed.

ES.2 Alternatives

Alternatives to SCE's Proposed Project are identified and evaluated in accordance with CEQA Guidelines. CEQA Guidelines (Section 15126(a)) state:

> *An EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.*

CEQA Guidelines (Section 15364) define feasibility as:

> *…capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.*

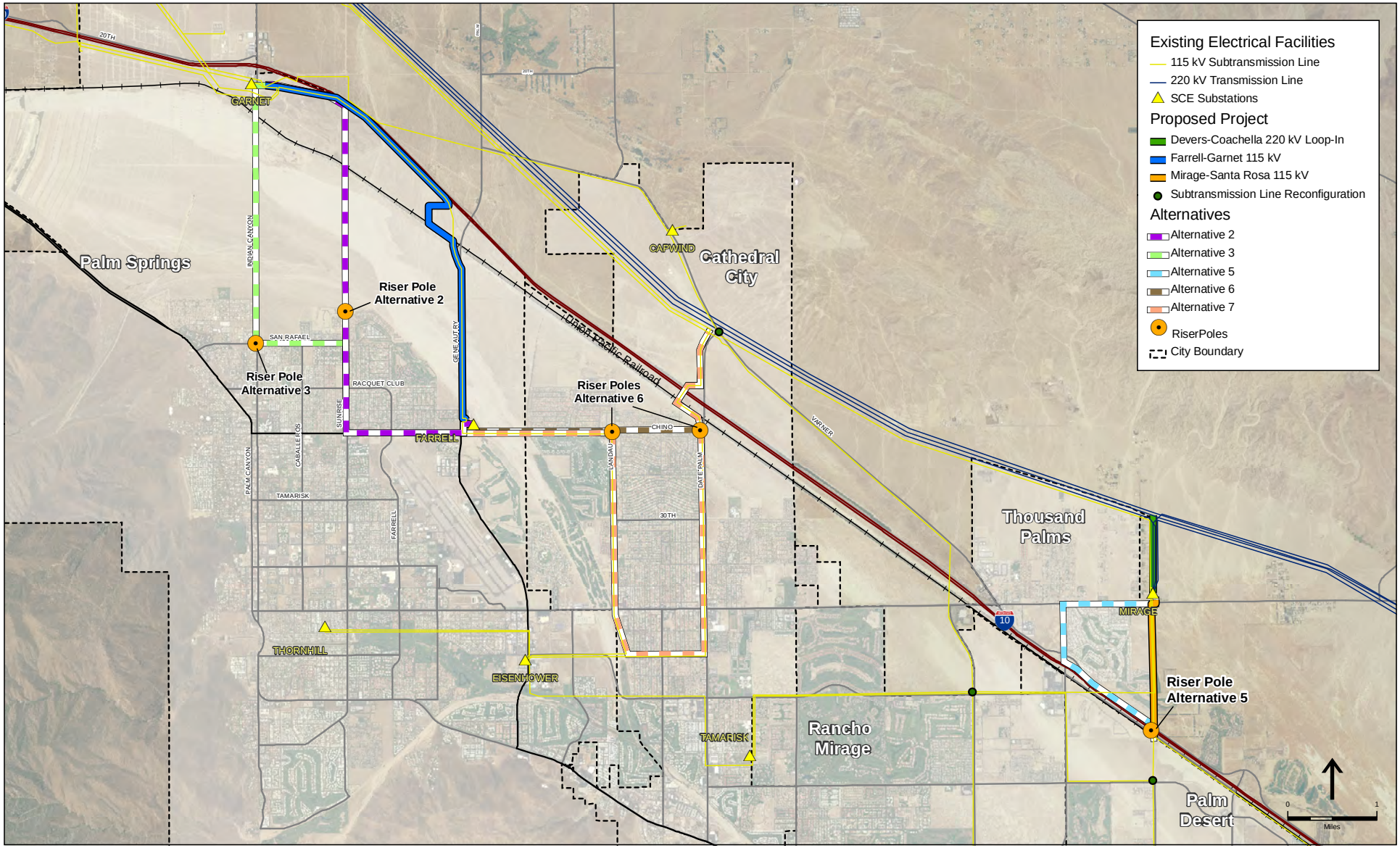
Alternatives to the Proposed Project were presented by SCE in its PEA and were developed by SCE and the EIR Team subsequent to publication of the PEA.

In total, the alternatives screening process culminated in the identification and screening of approximately 13 potential alternatives for SCE's Proposed Project. These alternatives range from routing adjustments for new subtransmission lines to demand-side management programs.

Alternatives to the Proposed Project were screened according to CEQA guidelines to determine those alternatives to carry forward for analysis in the EIR and alternatives to eliminate from detailed consideration. The alternatives were primarily evaluated according to: (1) whether they would meet most of the basic project objectives; (2) whether they would be feasible considering legal, regulatory and technical constraints; and (3) whether they have the potential to substantially lessen any of the significant effects of the Proposed Project.[2] Other factors considered, in accordance with CEQA Guidelines (CEQA Guidelines Section 15126.6(f)), were site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and the proponent's control over alternative sites. Economic factors or costs of the alternatives (beyond economic feasibility) were not considered in the screening of alternatives since CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives or would be more costly" (CEQA Guidelines Section 16126.6(b)).

The detailed results of the alternatives screening analysis are contained in Chapter 3 of the EIR. Provided below are summary descriptions of the five alternatives which meet most of the project objectives, lessen significant impacts, and are feasible, and were therefore carried forward for further analysis. Figure ES-2, *Alternatives Overview*, illustrates the general alignment of the five alternatives compared to the Proposed Project. Section 3.5, *Alternatives Eliminated from Full EIR Evaluation*, provides information related to other alternatives considered and the rationale for elimination from further consideration.

[2] At the screening stage, it is neither possible nor legally required to evaluate all of the impacts of the alternatives in comparison to the Proposed Project with absolute certainty, nor is it possible to quantify impacts. However, it is possible to identify elements of an alternative that are likely to be the sources of impact and to relate them, to the extent possible, to general conditions in the subject area.



SOURCE: SCE, 2008

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure ES-2

Alternatives Overview

ES.2.1 Alternatives Fully Evaluated in this EIR

No Project Alternative

Description. Under the No Project Alternative, the Proposed Project would not be implemented. The existing Devers 115 kV Subtransmission System would not be split and the existing Devers-Coachella Valley 220 kV transmission line would not be looped into Mirage Substation. SCE would have to design another project in order to overcome transmissions systems constraints. While it is speculative to predict the type and location or schedule of permanent development for new power plants or subtransmission and transmission lines needed to overcome such constraints, for the purpose of this EIR it is assumed that the No Project Alternative could include either or a combination of the following components: construction of new subtransmission and transmission facilities at 115 kV and 220 kV or higher voltage, possibly requiring the development of new subtransmission and transmission lines; and/or construction of additional regional power generation facilities.

Alternative 2

Description. Alternative 2 would include the construction of approximately six miles of a new underground and overhead single-circuit 115 kV subtransmission line within existing Caltrans and the City of Palm Springs road franchise locations and SCE ROW between the Farrell and Garnet substations. From Farrell Substation, the underground segment of Alternative 2 would head south on Gene Autry Trail to Vista Chino. It would then continue west along Vista Chino for approximately 1.3 miles. At Sunrise Way, the line would turn north, and proceed along Sunrise Way to Four Seasons Boulevard, where the underground segment would end and the subtransmission line would transition to overhead at a riser pole. From Four Seasons Boulevard to the intersection of the existing Devers-Farrell-Windland 115 kV subtransmission line (approximately 1.5 miles), the new overhead line would be constructed within existing SCE distribution line[3] ROWs. The alignment would then turn west, within the existing Devers-Farrell-Windland 115 kV subtransmission line ROW for approximately 1.5 miles. Within the existing subtransmission line ROW, the proposed Farrell-Garnet and existing Devers-Farrell-Windland lines would be consolidated on new double-circuit support structures on the south side of I-10 to Garnet Substation.

Rationale for Full Analysis. This alternative would meet most project objectives and would meet all legal, regulatory, and technical feasibility criteria.

Alternative 3

Description. Alternative 3 would include the construction of approximately 6.5 miles of new underground and overhead single-circuit 115 kV subtransmission line within existing Caltrans and the City of Palm Springs road franchise locations and SCE ROW between the Farrell and Garnet substations. From Farrell Substation, the underground segment of Alternative 3 would

[3] A distribution line is an electric power line designed at a voltage level of 50 kV of less. Distribution lines tend to provide electricity directly to electricity users.

head south on Gene Autry Trail to Vista Chino. At Vista Chino, Alternative 3 would head west for approximately 1.3 miles until reaching Sunrise Way where the line would turn north and proceed along Sunrise Way to San Rafael Road. At San Rafael Road, Alternative 3 would head west to Indian Canyon Drive, where it would turn north and continue underground for approximately 50 feet before it would rise above ground at a riser pole. North of the riser pole, the line would continue north overhead along Indian Canyon Drive within existing SCE distribution line ROW or City franchise to Garnet Substation. Along Indian Canyon Drive, the line would cross over the Whitewater River drainage adjacent to the Whitewater River Floodplain Preserve.

Rationale for Full Analysis. This alternative would meet most project objectives and would meet all legal, regulatory, and technical feasibility criteria.

Alternative 5

Description. Alternative 5 would include the construction of approximately 3.1 miles of mostly new underground single-circuit 115 kV subtransmission line within existing Riverside County road franchise locations and SCE ROW between Mirage Substation and the existing Santa Rosa-Tamarisk 115 kV line. Alternative 5 would be installed underground between the Mirage Substation and the existing Mirage-Concho 115 kV overhead transmission line. From the Mirage Substation, Alternative 5 would head south on Vista de Oro until Ramon Road, where it would turn and head west. At Monterey Avenue the alternative alignment turns and heads south to Varner Road, where it then turns southeast on Varner Road and proceeds to the point where it joins the existing Mirage-Concho 115 kV overhead subtransmission line. At this location, the underground line would rise overhead, double circuiting the Mirage-Concho 115 kV subtransmission line. Alternative 5 would cross Interstate 10 (I-10) and the Union Pacific Railroad (UPRR) on TSPs and would connect with the existing Santa Rosa-Tamarisk line south of I-10.

Rationale for Full Analysis. This alternative would meet most project objectives and would meet all legal, regulatory, and technical feasibility criteria.

Alternative 6

Description. Alternative 6 would include the construction of approximately 4.2 miles of new underground and overhead single-circuit 115 kV subtransmission line within existing Caltrans and Cathedral City road franchise locations and SCE ROW between Farrell Substation and the existing Garnet-Santa Rosa 115 kV ROW. Alternative 6 would exit Farrell Substation as an overhead line by heading south on Gene Autry Trail to Vista Chino. The line would then head east on Vista Chino approximately 1.7 miles to Landau Boulevard, where a riser pole would transition the line from overhead to underground. From Landau Boulevard, the underground line would continue east along Vista Chino traversing one mile to the existing SCE ROW of the Devers-Eisenhower 115 kV line along the west side of Date Palm Drive, where the line would transition from underground to overhead. From the intersection of Vista Chino and Date Palm Drive, the new poles would continue 1.5 miles north within existing SCE ROW and Cathedral City franchise, to the Garnet leg of the Garnet-Santa Rosa 115 kV subtransmission line.

Rationale for Full Analysis. This alternative would meet most project objectives and would meet all legal, regulatory, and technical feasibility criteria.

Alternative 7

Description. Alternative 7 would include the construction of approximately 9.1 miles of a new overhead single-circuit 115 kV subtransmission line within existing Caltrans and Cathedral City road franchise locations and SCE ROW between Farrell Substation and the existing Garnet-Santa Rosa 115 kV ROW. Alternative 7 would exit Farrell Substation as an overhead line and head south on Gene Autry Trail to Vista Chino. The line would then head east on Vista Chino for approximately 1.7 miles to Landau Boulevard, where the line would turn south and continue along Landau Boulevard for approximately 2.5 miles before reaching 33rd Street. At 33rd Street, the line would turn east and continue along 33rd Street for approximately 0.9 mile to Date Palm Drive, where the line would turn north. On Date Palm Drive the line would continue north for 4.0 miles to the existing Garnet-Santa Rosa 115 kV ROW.

Rationale for Full Analysis. This alternative would meet most project objectives and would meet all legal, regulatory, and technical feasibility criteria.

ES.3 Environmental Impacts and Mitigation Measures

ES.3.1 Impact Assessment Methodology

The analysis of environmental impacts is based upon the environmental setting applicable to each resource/issue and the manner in which the construction, operation and maintenance of the Proposed Project or alternatives would affect the environmental setting and related resource conditions. In accordance with CEQA requirements and guidelines, the impact assessment methodology also considers the following three topics: (1) the regulatory setting, and whether the Proposed Project or alternatives would be consistent with adopted federal, State and local regulations and guidelines, (2) growth-inducing impacts, and (3) cumulative impacts. Regulatory compliance issues are discussed in each resource/issue area section. The EIR document is organized according to the following major issue area categories:

- Aesthetics
- Agriculture Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use, Planning and Policies
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

In order to provide for a comprehensive and systematic evaluation of potential environmental consequences to the resource/issue areas, the environmental impact assessments for the Proposed

Project and alternatives are based upon a classification system, with the following four associated definitions:

Class I: Significant impact; cannot be mitigated to a level that is not significant

Class II: Significant impact; can be mitigated to a level that is not significant

Class III: Adverse impact, less than significant

Class IV: Beneficial impacts

ES.3.2 Applicant Proposed Measures

Table ES-2 lists Applicant Proposed Measures (APMs) that have been identified by SCE to minimize impacts from implementation of the Proposed Project. The impact analysis in this EIR assumes that these APMs would be implemented as part of the Proposed Project; however, if an APM would not adequately mitigate a potential project impact, a new mitigation measure was developed. In some cases, SCE's APMs have been superseded by new mitigation measures.

TABLE ES-2
APPLICANT PROPOSED MEASURES

APM AQ-1. Control Exhaust Emissions. Use ultra-low sulfur diesel fuel (e.g., fewer than 15 parts per million).
APM AQ-2. Control Exhaust Emissions. Use clean-burning on- and off-road diesel engines. Where feasible, heavy duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) will be utilized.
APM AQ-3. Control Exhaust Emissions. Construction workers will carpool when possible.
APM AQ-4. Control Exhaust Emissions. Restrict vehicle idling time to less than 10 minutes whenever possible.
APM AQ-5. Control Exhaust Emissions. Properly maintain mechanical equipment.
APM AQ-6. Minimize Diesel Particulate Matter. Use particle traps and other appropriate controls to reduce diesel particulate matter (DPM) where possible. Utilize equipment such as specialized catalytic converters (oxidation catalysts) to control approximately 20 percent of DPM, 40 percent of CO, and 50 percent of hydrocarbon emissions.
APM AQ-7. Fugitive Dust Control Measures. Implement feasible fugitive dust control measures as provided in SCAQMD Rule 403.
APM AQ-8. Construction Operations. As feasible, restrict construction operations during the morning hours and during high wind events, when NOx emissions are more likely to contribute to O_3 formation.
APM AQ-9. Construction Scheduling. Efficiently schedule staff and daily construction activities to minimize the use of unnecessary/duplicate equipment when possible.
APM AQ-10. Emissions Reduction. To reduce simultaneous project-related NOx, PM10, and PM2.5, emissions from on- and off-road heavy construction equipment, given the constraints of the construction schedule, SCE shall phase project construction, to the extent feasible, so that off-site disposal of excavated material from Proposed Project area grading and excavation does not occur simultaneously with transmission and subtransmission line and substation construction or upgrade activity (including, but not limited to, access road grading, excavation for tower and pole bases, crane pads, tower and pole delivery, or tower and pole erection). During transmission and subtransmission line construction, SCE shall phase the project construction schedule, to the extent feasible, so that grading and excavation for site access, tower and pole bases, or crane pads do not occur simultaneously with tower or pole delivery or erection.
APM BIO-1. Preconstruction Surveys. Preconstruction biological clearance surveys will be performed to minimize impacts to special-status plant and wildlife.
APM BIO-2. Minimize Vegetation Impacts. Every effort will be made to minimize vegetation removal and permanent loss at construction sites. If necessary, native vegetation will be flagged for avoidance.
APM BIO-3. Avoid Impacts to State and Federal Jurisdiction Wetlands. Construction crews will avoid impacting the streambeds and banks of streams along the route to the extent possible. If necessary, a Streambed Alteration Agreement (SAA) will be secured from the CDFG. Impacts will be mitigated based on the terms of the SAA. No streams with flowing waters capable of supporting special-status species will be expected to be impacted by the project.

TABLE ES-2 (Continued)
APPLICANT PROPOSED MEASURES

APM BIO-4. BMPs. Crews will be directed to use Best Management Practices (BMPs) where applicable. These measures will be identified prior to construction and incorporated into the construction operations.

APM BIO-5. Biological Monitors. Biological monitors will be assigned to the project in areas of sensitive biological resource. The monitors will be responsible for ensuring that impacts to special status species, native vegetation, wildlife habitat, or unique resources will be avoided to the fullest extent possible. Where appropriate, monitors will flag the boundaries of areas where activities need to be restricted in order to protect native plants and wildlife or special status species. Those restricted areas will be monitored to ensure their protection during construction.

APM BIO-6. Worker Environmental Awareness Program. A Worker Environmental Awareness Program (WEAP) will be prepared. All construction crews and contractors will be required to participate in WEAP training prior to starting work on the project. The WEAP training will include a review of the special status species and other sensitive resources that could exist in the project area, the locations of sensitive biological resources and their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. A record of all trained personnel will be maintained.

APM BIO-7. Avoid Impacts to Active Nests. SCE will conduct project-wide raptor surveys and remove trees, if necessary, outside of the nesting season (nesting season is usually February 1 to August 31). If a tree or pole containing a raptor nest must be removed during nesting season, or if work is scheduled to take place in close proximity to an active nest on an existing transmission tower or pole, SCE will coordinate with the CDFG and USFWS and obtain written verification prior to moving the nest.

APM BIO-8.[4] Avian Protection. All transmission and subtransmission towers and poles will be designed to be raptor-safe in accordance with the Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006 (Avian Power Line Interaction Committee, 2006).

APM BIO-9.[5] Coachella Valley Milkvetch. Surveys for Coachella Valley milkvetch will be performed within 1 year prior to construction, between February and early May, during the plant's growing and flowering season. GPS coordinates of plant locations will be recorded with high precision (to within 1 meter) and stored in an electronic database. Plants will be marked conspicuously with pin flags and avoided during construction to the greatest extant possible. Following the completion of construction, areas compacted during temporary construction activities (e.g., lay-down areas, pulling sites) will be scarified, if deemed necessary, to enhance germination of this species.

A compensation fee for habitat loss shall be paid to BLM or a land conservation organization, as approved by the USFWS, for acquisition of replacement habitat. The agreed-upon fee amount will be $5,000 (not to exceed $7,246) per acre for the three acres of temporary impacts ($15,000 total). In addition, there will also be a one-time fee of 15 percent, in the amount of $2,250 (not to exceed $3,261) to cover overhead costs associated with habitat acquisition. Total compensation funds will not exceed $25,000 without the written concurrence of SCE, BLM, and the USFWS. These actions shall be coordinated with the BLM or a land conservation agency and approved by the USFWS. Funds shall be paid prior to beginning the Proposed Project and will mitigate both direct/indirect impacts of construction and operations and management.

APM BIO-10.[6] Coachella Valley Fringe-toed Lizard. Coachella Valley fringe-toed lizards are restricted to isolated deposits of loose windblown sand associated with hummocks west and east of Gene Autry Trail (where the road crosses the UPRR tracks). The Farrell-Garnet easement in this area encompasses approximately 3.35 acres of potential habitat, of which approximately 1.0 acre was occupied by fringe-toed lizards in June 2006. While active, Coachella Valley fringe-toed lizards flee readily from danger and threats and will be inclined to move as construction activities begin. All construction work within Coachella Valley fringe-toed lizard habitat will be performed during the lizards' active season. Determination of the active season will be based on temperatures being consistently above 80 degrees Fahrenheit and the observation of activity at a nearby reference population. The active season is typically between May and September. Specific protections that SCE will implement for the Coachella Valley fringe-toed lizard are summarized as such:

1. Protocol-level surveys will be conducted within 1 year of construction activities to determine presence or absence of Coachella Valley fringe-toed lizards.
2. All construction areas in Coachella Valley fringe-toed lizard habitat will be fenced and completely enclosed to keep the lizards from entering active work areas. Fencing will include fences leading up to and encircling the specific subtransmission poles where work will be performed and along the western edge of Gene Autry Trail, north along the overpass (to prevent lizards from entering the road). Silt fencing will be used and buried to a depth of 8 to 12 inches. The access end of the enclosed area shall be kept closed except to allow immediate access to equipment and personnel. An area between the existing tamarisk trees (bordering the UPRR tracks) and the northern-most pole south of the railroad tracks will remain unfenced to allow fringe-toed lizards to move back and forth.

4 APM BIO-8 was identified as BIO-9 in the PEA.
5 APM BIO-9 was identified as BIO MIT-1 in the PEA.
6 APM BIO-10 was identified as BIO MIT-2 in the PEA.

TABLE ES-2 (Continued)
APPLICANT PROPOSED MEASURES

3. Qualified biologists shall conduct clearance surveys within the enclosed construction sites. Parallel transects spaced 20 feet apart will be performed within 48 hours before the initiation of construction. Surveys shall provide 100-percent coverage of the entire enclosed construction area. The area underneath shrubs and surrounding large rocks and boulders will be gently raked to expose hidden lizards. Surveys will be repeated and construction not allowed to begin until two consecutive surveys fail to reveal fringe-toed lizards.
4. A biological monitor will oversee all construction activities within Fringe-toed Lizard habitat. The monitor will have in their possession a federal 10(a)(1)(A) permit and associated Memorandum of Understanding (MOU) from CDFG. When a Coachella Valley fringe-toed lizard is found during surveys, the exclusionary fencing will be opened or lifted, and the lizard will be encouraged to run through the opening to the outside of the work area, after which the fencing will be closed again. Capture of fringe-toed lizards will be allowed by net, noose, or by hand only if a lizard is not moving out of the fenced project area through encouragement or of its own volition. A new pair of latex or synthetic gloves will be used for each lizard handled.
5. If any Coachella Valley fringe-toed lizards are captured as above, they will be released immediately to the west of the project footprint (to a distance of up to 500 feet outside the enclosed area, away from any active roadways) in loose sand contiguous with the area at which construction is occurring. The immediate area will be searched for snakes, and if found, a different microsite will be found. Fringe-toed lizards will be released in the shade of a shrub. No lizards will be in captivity or in transport for longer than 10 minutes after their initial capture within an enclosed construction area. Lizards will be transported in clean, white, plastic 5-gallon buckets.
6. All movement of construction vehicles outside of the ROW will be restricted to predesignated access, contractor-acquired access, or public roads.
7. If road stabilization is required for the temporary access roads, the materials used for stabilization will consist of temporary, easily removable material (e.g., mats laid down on sand, rather than gravel).
8. The real limits of construction within the ROW will be predetermined, with activity restricted to and confined within those limits. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.
9. Construction and maintenance vehicles will not exceed a speed of 10 miles per hour in Coachella Valley fringe-toed lizard habitat.
10. To the extent possible, construction operations within habitat for the Coachella Valley fringe-toed lizard shall occur when the air temperatures 1 inch above the ground in the shade are between 96 degrees and 112 degrees Fahrenheit, preferably between April 1 and October 30, contingent upon activity being observed at a nearby reference population. However, if protocol-level clearance surveys have been performed within 48 hours prior to construction, work may proceed (with a biological monitor present) outside of these parameters (e.g., construction during the evening hours).
11. Any spoils will be stockpiled in previously disturbed areas that have been examined for the presence of Coachella Valley fringe-toed lizards by a qualified biologist. Those areas will be fenced and cleared of lizards prior to use as in steps 1 through 5 above.
12. Existing sand-retaining lattice fences in the ROW will be repaired or replaced.
13. After construction, compacted soils will be scarified and seeded with twinbugs (Dicoria canescens) in low density.
14. Clearance surveys will be repeated if more than 72 hours elapse between work sessions, if any portion of a fence is removed or blown down, or if measurable rainfall occurs.

APM BIO-11.[7] Burrowing Owl. During and prior to breeding season, preconstruction surveys will be performed in all work areas to identify areas where burrowing owls or potential burrows exist. Previously documented burrows will be revisited. Potential burrows will be searched to determine occupancy, and if vacant, will be collapsed outside of nesting season. In collaboration with CDFG and the accepted relocation strategy, occupied burrows, if any, will be fitted with exclusionary devises that allow exit, but not re-entrance, of a burrowing owl into a burrow outside of nesting season. If active burrows are located during nesting season, construction within 450 feet of the burrow will be delayed until the young have fledged.

APM CUL-1. Native American Consultations. Continued consultation and communication with interested Native American community to understand the concerns of Native American members in identifying measures that would prevent direct and indirect impacts. One such measure may include the following: if previously unidentified archaeological resources are unearthed during construction activities, construction will be halted in that area and directed away from the discovery, until a qualified archaeologist assesses the significance of the resource. The archaeologist would recommend appropriate measures to record, preserve, or recover the resources.

7 APM BIO-11 was identified as BIO MIT-3 in the PEA.

TABLE ES-2 (Continued)
APPLICANT PROPOSED MEASURES

APM CUL-2. Discovery of Human Remains. If human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the county coroner makes the necessary findings as to origin, pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5. If the remains are determined to be Native American, then the NAHC would be notified within 24 hours, as required by Public Resources Code 5097. The Native American Heritage Commission (NAHC) would notify the designated Most Likely Descendants, who would provide recommendations for the treatment of the remains within 24 hours. The NAHC mediates any disputes regarding the treatment of remains.
APM CUL-3. Construction Monitoring. All ground-disturbing activities occurring along the Proposed Mirage-Santa Rosa 115 kV Subtransmission Line Alternative (Route 4) would be monitored by a qualified archaeologist. The route is highly sensitive for cultural resources.
APM CUL-4.[8] Data Recovery Plan. An evaluation and data recovery plan shall be developed to address impacts to CA-RIV-785, 33-15429, and 33-15430.
APM CUL-5.[9] Cultural Resources Plan. A cultural resource management plan shall be developed to prevent operational impacts to the cultural resource located between the Mirage Substation and I-10.
APM CUL-6.[10] Garnet Hills Native American Cultural Resource. Appropriate measures, if deemed necessary, would be developed in consultation with Native American community members, as recommended by the NAHC, to address potential impacts to the Garnet Hills Native American cultural resource.
APM PA-1. Paleontological Field Assessment. Conduct a paleontological field assessment of the finalized ROWs for the Proposed Project, as needed.
APM PA-2. Paleontological Resources. Prior to construction, a paleontologist would salvage known, exposed paleontological resources. This would consist of collecting standard samples of fossiliferous sediments.
APM PA-3. Paleontological Monitoring. A paleontological monitor would be present during ground-disturbing activities within areas designated as having a high possibility for the presence of paleontological resources. The monitor would be empowered to temporarily halt or redirected construction activities to ensure avoidance of adverse impacts.
APM PA-4. Salvage and Recovery of Paleontological Resources. Upon encountering a large deposit of bone, salvage of all bone in the area would be conducted in accordance with modern paleontological techniques.
APM PA-5. Transfer of Fossils to Museum. All fossils collected would be prepared to a reasonable point of identification. Itemized catalogs of all material collected and identified would be provided to a museum repository along with the specimens. A specimen repository would be arranged, in writing, with a museum prior to initiation of construction excavation.
APM PA-6. Paleontological Reporting. A report documenting the results of the monitoring and salvage activities and the significance of the fossils would be prepared.
APM GEO-1. Seismic Design for Ground Shaking. A geotechnical investigation of site soils and geologic conditions, coupled with engineering design, would identify the hazards and develop recommendations to support appropriate seismic designs to mitigate the effects of ground shaking. Specific requirements for seismic design would be based on the IEEE 693 "Recommended Practices for Seismic Design of Substations."
APM GEO-2. Subsurface Trenching. Where appropriate, subsurface trenching along active fault traces would be required to ensure tower foundations are not placed on, or immediately adjacent to, these features. In addition, tower locations would be selected to accommodate anticipated fault offset, and minimize excessive tension in lines, should a fault movement occur.
APM HAZ-1. Hazardous Materials and Waste Handling Management. Hazardous materials used and stored onsite for the proposed construction activities - as well as hazardous wastes generated onsite as a result of the proposed construction activities – would be managed according to the specifications outlined below. • *Hazardous Materials and Hazardous Waste Handling*: A project-specific hazardous materials management and hazardous waste management program would be developed prior to construction of the project. The program would outline proper hazardous materials use, storage, and disposal requirements, as well as hazardous waste management procedures. The program would identify types of hazardous materials to be used during the project and the types of wastes that would be generated. All project personnel would be provided with project-specific training. This program would be developed to ensure that all hazardous materials and wastes are handled in a safe and environmentally sound manner. Hazardous wastes would be handled and disposed of according to applicable rules and regulations. Employees handling wastes would receive hazardous materials training and shall be trained in hazardous waste

8 APM CUL-4 was identified as CUL-MIT-1 in the PEA.
9 APM CUL-5 was identified as CUL-MIT-2 in the PEA.
10 APM CUL-6 was identified as CUL-MIT-3 in the PEA.

TABLE ES-2 (Continued)
APPLICANT PROPOSED MEASURES

procedures, spill contingencies, waste minimization procedures and Treatment, Storage, and Disposal Facility (TSDF) training in accordance with OSHA Hazard Communication Standard and 22 CCR. SCE would use landfill facilities that are authorized to accept treated wood pole waste in accordance with HSC 25143.1.4(b).

- *Construction Stormwater Pollution Prevention Plan (SWPPP)*: A project-specific construction SWPPP would be prepared and implemented prior to the start of construction of the Proposed Project. The SWPPP would utilize BMPs to address the storage and handling of hazardous materials and sediment runoff during construction activities.
- *Transport of Hazardous Materials*: Hazardous materials that would be transported by truck include fuel (diesel fuel and gasoline) and oil and lubricants for equipment. Containers used to stored hazardous materials would be properly labeled and kept in good condition. Written procedures for the transport of hazardous materials used would be established in accordance with U.S. Department of Transportation and Caltrans regulations. A qualified transporter would be selected to comply with U.S. Department of Transportation and Caltrans regulations.
- *Fueling and Maintenance of Construction Equipment*: Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. Vehicles and equipment would be refueled onsite or by tanker trucks. Procedures would include the use of drop cloths made of plastic, drip pans, and trays, to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling stations would be located in designated areas where absorbent pads and trays would be available. The fuel tanks also would contain a lined area to ensure that accidental spillage does not occur. Drip pans or other collection devices would be placed under the equipment at night to capture drips or spills. Equipment would be inspected daily for potential leakage or failures. Hazardous materials, such as paints, solvents, and penetrants, would be kept in an approved locker or storage cabinet.
- *Emergency Release Response Procedures*: An Emergency Response Plan detailing responses to releases of hazardous materials would be developed prior to construction activities. It would prescribe hazardous materials handling procedures for reducing the potential for a spill during construction and would include an emergency response program to ensure quick and safe cleanup of accidental spills. All hazardous materials spills or threatened release, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of the quantity spilled, would be immediately reported if the spill has entered a navigable water, stream, lake, wetland, or storm drain, if the spill impacted any sensitive area including conservation areas and wildlife preserved, or if the spill caused injury to a person or threatens injury to public health. All construction personnel, including environmental monitors, would be aware of state and federal emergency response reporting guidelines.

APM HAZ-2. Fire Management Plan. The Fire Management Plan would be developed by SCE prior to start of construction.

APM HAZ-3. Spill Prevention, Counter Measure, and Control Plan (SPCC). In accordance with Title 40 of the CFR, Part 112, SCE would prepare an updated SPCC for appropriate substations within the Proposed Project. The plans would include engineered and operational methods for preventing, containing, and controlling potential releases, and provisions for quick and safe cleanup.

APM HAZ-4. Hazardous Materials Business Plan (HMBPs). SCE would prepare and submit an updated HMBP for appropriate substations within the Proposed Project. The required documentation would be submitted to the Certified Unified Program Agency (CUPA). The HMBPs would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment.

APM HYDRO-1. Grading Activities. Grading activities would not commence if heavy rain is forecasted for the period of time of major earthmoving activities through compaction and stabilization of the site.

APM HYDRO-2A. Erosion Control and Drainage Plan. An engineered erosion control and drainage plan would be developed as part of the site grading plan. The plan would be developed in accordance with the County of Riverside Hydrology Manual and would address all construction activities associated with the project. The location of the discharge of site runoff for construction would be defined in final engineering and in consultation with Riverside County, the RWQCB, and the CDFG.

APM HYDRO-2B. Construction Erosion Control Plan. SCE shall develop an erosion control plan incorporating construction-phase measures to limit and control erosion and siltation. The erosion control plan shall include components such as phasing of grading, limiting areas of disturbance, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, and provision for revegetation or mulching. The plan shall also prescribe treatment measures to trap sediment once it has been mobilized, at a scale and density appropriate to the size and slope of the catchment.

APM HYDRO-2C. Environmental Training Program. An environmental training program would be established to communicate environmental concerns and appropriate work practices, including spill prevention and response measures, to all field personnel involved in the construction of the Proposed Project elements. A monitoring program would be implemented to ensure that the plans are followed throughout the period of construction.

APM HYDRO-3. Access Road Location. Prior to final engineering of the proposed access road, SCE would consult with Riverside County, CDFG, and the RWQCB regarding the location of the access road.

TABLE ES-2 (Continued)
APPLICANT PROPOSED MEASURES

APM HYDRO-4. Hazardous Substance Control and Emergency Response Plan. SCE would prepare a Hazardous Substance Control and Emergency Response Plan, which would include preparations for quick and safe cleanup of accidental spills. This plan would be submitted to agencies with the grading permit application. It would prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and would include an emergency response program to ensure quick and safe cleanup of accidental spills. The plan would identify areas where refueling and vehicle maintenance activities and storage of hazardous materials, if any, would be permitted. Oil-absorbent materials, tarps, and storage drums would be used to contain and control any minor releases of mineral oil.
APM LU-1. Aeronautical Considerations. As indicated in the Study of Aeronautical Considerations (2007), SCE would submit notice to the FAA electronically, in accordance with FAA procedures and as far in advance of construction as possible.
APM NOISE-1. Noise Ordinances. SCE would comply with all applicable noise ordinance construction schedules. In the event the construction must occur outside the allowable work hours, a variance would be obtained.
APM NOISE-2. Noise Control Equipment Maintenance. Maintain all noise-control equipment in good working order, in accordance with manufacturers' specifications.
APM NOISE-3. Handling of Noise Complaints. During construction, investigate, document, evaluate, and attempt to resolve legitimate project-related noise complaints. This would involve attempting to contact the source (person or persons) of the noise complaint within 24 hours; investigating to determine the project noise source(s) that led to the complaint; and taking all feasible measures to reduce the noise at the source, if the complaint is legitimate.
APM REC-1. Recreation Area Closures. When temporary short-term closures to recreational areas are necessary for construction activities, SCE would coordinate those closures with recreational facility owners. To the extent practicable, SCE would schedule construction activities to avoid heavy recreational use periods (e.g., holidays or tournaments). SCE would post notice of the closure onsite 14 calendar days prior to the closure.
APM TRA-1. Obtain Permits. If any work requires modifications or activities within local roadway ROWs, appropriate permits will be obtained prior to the commencement of construction activities, including any necessary local permits and encroachment permits.
APM TRA-2. Traffic Management and Control Plans. Traffic control and other management plans will be prepared where necessary to minimize project impacts on local streets.
APM TRA-3. Minimize Street Use. Construction activities will be designed to minimize work on or use of local streets.
APM PUSVC-01. Work Around High Pressure Gas Lines. No mechanical equipment will be permitted to operate within 3 feet of the Southern California Gas Company high-pressure pipelines, and any closer work must be done by hand.
APM PUSVC-02. Monitoring by the Southern California Gas Company. A representative of the Southern California Gas Company must observe the excavation around or near their facilities to insure protection and to record pertinent data necessary for their operations.

ES.3.3 Mitigation Measures

This EIR describes feasible measures that could minimize significant adverse impacts (CEQA Guidelines Section 15226.4). Within each issue area, mitigation measures are recommended where environmental effects could be substantially minimized. The mitigation measures recommended by this study have been identified in the impact assessment sections of the EIR and are presented in Mitigation Monitoring, Reporting, and Compliance Program in Chapter 8.

ES.3.4 Findings

An overview of environmental impacts by resource area is provided below based on the detailed impact finding and mitigation measures for the Proposed Project and alternatives provided in Chapter 4, *Environmental Analysis*. Tables ES-5 and ES-6, at the end of this Executive Summary, provide a more detailed summary of all the environmental impacts and mitigation measures for the Proposed Project and alternatives.

No Impact, Less than Significant, and Less than Significant with Mitigation

For the Proposed Project and alternatives, based on technical review and evaluation against the environmental and regulatory setting, the following environmental impacts were determined to have no impact, be less than significant, or less than significant with mitigation (i.e., No Impact, Class III, or Class II, respectively).

- Aesthetics
- Agricultural Resources
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use, Planning and Policies
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Significant Unmitigable

As summarized in Table ES-3, environmental impacts to air quality from construction of the Proposed Project as well as Alternatives 2, 3, 5, 6, and 7 would be significant and unmitigable (Class I), even with implementation of feasible mitigation measures.

TABLE ES-3
SUMMARY OF SIGNIFICANT UNMITIGABLE (CLASS I) ENVIRONMENTAL IMPACTS OF THE DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT AND ALTERNATIVES

Alternative	Significant (Class I) Impacts
Proposed Project	The Proposed Project would result in temporary significant and unmitigable impacts to regional and local air quality during construction activities.
Class I Impacts Eliminated or Created by Alternatives	
Alternative 2	Same significant and unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to trenching requirements for the approximately three-mile long underground segment.
Alternative 3	Same significant unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to trenching requirements for the approximately 3.6-mile long underground segment.
Alternative 5	Same significant unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to trenching requirements for the approximately three-mile long underground segment.
Alternative 6	Same significant unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to trenching requirements for the approximately one-mile long underground segment.
Alternative 7	Same significant unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to greater length of subtransmission line construction required under this alternative.

ES.4 Summary Comparison of the Proposed Project and Alternatives

ES.4.1 Methodology

CEQA requires identification of an Environmentally Superior Alternative, but does not provide specific direction regarding the methodology of alternatives comparison. Each project must be evaluated for the issues and impacts that are most important; this will vary depending on the project type and the environmental setting. Issue areas that are generally given more weight in comparing alternatives are those with long-term impacts (e.g., visual impacts). Impacts associated with construction (i.e., temporary or short-term) or those that are easily mitigable to less than significant levels are considered to be less important.

The methodology used to compare alternatives in this EIR started with identification of alternatives. Based on alternatives suggested by SCE in its PEA, an intensive evaluation process was completed that resulted in the determination that the EIR would analyze five alternative alignment variations. A No Project alternative was also identified. The second step required assessment of the environmental impacts of the Proposed Project and alternatives. The third step was the comparison of the impacts of each alternative to those of the Proposed Project to determine the Environmentally Superior Alternative. The Environmentally Superior Alternative was then compared to the No Project alternative.

Although this comparison focuses on the most important issue areas (e.g., aesthetics and biological resources), determining an Environmentally Superior Alternative is difficult because of the many factors that must be balanced. While this EIR identifies an Environmentally Superior Alternative, it is possible that the Commission could balance the importance of each impact area differently and reach a different conclusion.

ES.4.2 Summary of Significant (Class I) Unmitigable Impacts

As shown in Table ES-3, construction of the Proposed Project would result in significant and unmitigable impacts to air quality. These significant and unmitigable impacts were also identified for each of the five alternatives.

ES.4.3 Environmentally Superior Alternative

Table ES-3 summarizes the environmental impact conclusions of the Proposed Project and alternatives. Implementation of the Proposed Project and all five alternatives would result in significant and unmitigable (Class I) impacts on air quality during construction. Although impacts to air quality would be of varying degrees (i.e., alternatives with an underground component would be slightly more adverse than the Proposed Project due to emissions during trenching activities), the impacts would be short term and temporary in nature; therefore, impacts of slightly varying degree between alternatives is not material enough to determine a preferred alternative from an air quality perspective.

However, impacts to aesthetics, biological resources, cultural resources, and traffic and transportation, while all mitigable to less than significant, do vary enough to determine a preferred alternative from the perspective of these issue areas. Consequently, the selection of an Environmentally Superior Alternative is based on differences in intensity and type of impacts that would be less than significant with mitigation. Based on these differences the identified Environmentally Superior Alternative for the Farrell-Garnett study area is Alternative 3 and the identified Environmentally Superior Alternative for the Mirage-Santa Rosa study area is Alternative 5.

ES.4.4 Environmentally Superior Alternative vs. No Project Alternative

The Environmentally Superior Alternatives (Alternatives 3 and 5) would reduce long-term aesthetics and biological resources impacts and would have minimal long-term impacts on residences or other sensitive land uses. Under the No Project Alternative scenario, SCE may be required to construct new subtransmission and transmission lines and/or additional power generation in or near the study area to supply power to the Electrical Needs Area. It would be overly speculative for this EIR to assume where the new subtransmission and transmission facilities and/or power generation facilities would be sited; however, it is reasonable to assume that at a minimum, environmental impacts associated with the No Project Alternative scenario would not be less than those from the Environmentally Superior Alternatives. Therefore, the Environmentally Superior Alternatives are preferred over the No Project Alternative.

ES.5 Impact Summary Tables

Tables ES-5 and ES-6 on the following pages summarize all identified impacts of the Proposed Project (Table ES-5) and alternatives (Table ES-6). For each impact, the following information is provided: impact number and title, impact class (e.g., Class I, II, III, IV), applicable mitigation measure(s), and residual impact (whether significant or less than significant).

ES.6 References

Southern California Edison (SCE), 2008. Proponent's Environmental Assessment for the Devers-Mirage 115 kV Subtransmission System Split Project, January 2008.

TABLE ES-4
DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Issue Area	Proposed Project	Alternative 2	Alternative 3	Alternative 5	Alternative 6	Alternative 7
Aesthetics	Proposed Mirage-Santa Rosa line would have more of an impact than Alternative 5.		Least impact for the Farrell-Garnet study area.	Less of an impact than the proposed Mirage-Santa Rosa line.		Most impact for the Farrell-Garnet study area.
Agriculture Resources	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Air Quality	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Biological Resources	Most for the Farrell-Garnet and Mirage-Santa Rosa study areas.		Least impacts for the Farrell-Garnet study area.	Less impacts than the proposed Mirage-Santa Rosa line.		
Cultural Resources	Most impacts for the Farrell-Garnet and Mirage-Santa Rosa study areas.			Less impacts than the proposed Mirage-Santa Rosa line.		Least impacts on cultural resources for the Farrell-Garnet study area.
Geology and Soils	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Hazards / Hazardous Materials	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Hydrology and Water Quality	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Land Use, Planning and Policies	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Minerals	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Noise	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Population and Housing	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Public Services	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Recreation	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference
Transportation and Traffic	Least impacts for the Farrell-Garnet and Mirage-Santa Rosa study areas.		Most impacts for the Farrell-Garnet study area.	More impacts to than the proposed Mirage-Santa Rosa line.		
Utilities and Service Systems	No Preference	No Preference	No Preference	No Preference	No Preference	No Preference

TABLE ES-5
SUMMARY OF IMPACTS AND MITIGATION FOR THE DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Aesthetics			
4.1-1: Degrade scenic resources along State Route 111	Class III	None required	Less than Significant
4.1-2: Temporary visual impacts from construction staging areas	Class III	None required	Less than Significant
4.1-3: Temporary visual impacts from pulling/splicing sites	Class II	**4.1-3:** Limit time equipment is on site and clean up and restore site in accordance with SWPPP	Less than Significant
4.1-4: Temporary visual impacts from substation modifications	Class III	None required	Less than Significant
4.1-5: Degrade existing visual character	Class III	None required	Less than Significant
4.1-6: Temporary impacts to nighttime views from construction night lighting	Class II	**4.1-6:** Reduce construction night lighting impacts	Less than Significant
4.1-7: Create new sources of glare associated with conductors	Class II	**4.1-7:** Use non-specular conductors	Less than Significant
4.1-8: Create new sources of glare associated with substation modifications	Class II	**4.1-8:** Apply a non-reflective or weathered finish to all new structures and equipment at substations	Less than Significant
Agriculture Resources			
4.2-1: Impacts to Farmland of Local Importance	Class III	None required	Less than significant
Air Quality			
4.3-1: Temporary criteria pollutant emissions from construction	Class I	**4.3-1a:** Fugitive dust control plan **4.3-1b:** Exhaust emissions control plan	Significant unmitigable
4.3-2: Long-term criteria pollutant emissions from project operation	Class III	None required	Less than significant
4.3-3: Cumulatively considerable criteria pollutant emissions during construction	Class I	Implement Mitigation Measures 4.3-1a and 4.3-1b	Significant unmitigable
4.3-4: Temporary exposure of sensitive receptors to harmful concentrations of criteria pollutants during construction	Class I	Implement Mitigation Measures 4.3-1a and 4.3-1b	Significant unmitigable
4.3-5: Create objectionable odors during construction	Class III	None required	Less than significant
4.3-6: Generate short-term and long-term emissions of GHGs	Class II	**4.3-6:** Implement a GHG emissions offset program	Less than significant

[a] Impact Classes: Class I (significant, unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-5 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Biological Resources			
4.4-1: Construction impacts to Coachella Valley milkvetch	Class II	**4.4-1:** Conduct pre-construction surveys for Coachella Valley milkvetch and minimize impacts to habitat; where impacts cannot be minimized, replace habitat	Less than Significant
4.4-2: Construction impacts to Coachella Valley fringe-toed lizard and flat-tailed horned lizard	Class II	**4.4-2:** Minimize impacts to Coachella Valley fringe-toed lizard; where impacts cannot be minimized, replace habitat	Less than Significant
4.4-3: Construction impacts to Palm Springs round-tailed ground squirrel	Class II	**4.4-3:** Avoid impacts to Palm Springs round-tailed ground squirrel burrow colonies	Less than Significant
4.4-4: Construction impacts to Coachella Valley giant sand-treader cricket	Class II	Implement Mitigation Measures 4.4-1 and 4.4-2.	Less than Significant
4.4-5: Construction impacts to native, nesting birds	Class II	**4.4-5:** Avoid impacts to nesting raptors or other protected birds during construction activities scheduled during breeding season	Less than Significant
4.4-6: Construction impacts to burrowing owl	Class II	**4.4-6:** Survey for burrows prior to construction and minimize impacts to occupied burrows	Less than Significant
4.4-7: Impacts to raptors as a result of electrocution or collision	Class III	None required	Less than Significant
4.4-8: Increased predation on special status-species as a result of predatory bird perching	Class II	**4.4-8:** Install anti-perching devices	Less than Significant
4.4-9: Impacts to sand fields	Class II	Implement Mitigation Measure 4.4-1 and 4.4-2	Less than Significant
4.4-10: Impacts to jurisdictional waters of the US and waters of the State, including drainages and wetlands	Class II	**4.4-10:** Perform a wetland delineation and minimize or offset impacts to wetlands	Less than Significant
4.4-11: Interference with migratory bird movement	Class III	None required	Less than Significant
4.4-12: Conflict with the Coachella Valley Multiple Species Conservation Plan	Class II	Implement Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-4, 4.4-5, 4.4-6, 4.4-8 and 4.4-10	Less than Significant
Cultural Resources			
4.5-1: Impacts to historic site 33-8408, Varner Road	Class III	None required	Less than Significant
4.5-2: Impacts to *Hoon wit ten ca va* (Garnet Hill)	Class II	**4.5-2:** Consult with Native American community member regarding *Hoon wit ten ca va* (Garnet Hill)	Less than Significant

TABLE ES-5 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Cultural Resources (cont.)			
4.5-3: Impacts to cultural resources CA-RIV-785, 33-15439, and 33-15430	Class II	**4.5-3a:** Avoid and protect archeological resources **4.5-3b:** Prepare a treatment plan if avoidance is not feasible **4.5-3c:** Assign a Native American monitor for all ground-disturbing activities along the Mirage-Santa Rosa 115 kV subtransmission line alignment	Less than Significant
4.5-4: Impacts to currently unknown cultural resources	Class II	**4-5-4a:** Cease work if a cultural resources is discovered until a qualified archeologist has assessed the resources **4.5-4b:** Retain an archeologist meeting the Secretary of the Interior's Professional Qualification Standards to oversee implementation of mitigation measures **4.5-4c:** Survey all previously unsurveyed portions of the line prior to ground disturbing activities	Less than Significant
4.5-5: Impacts to unidentified paleontological resources	Class III	None required	Less than Significant
4.5-6: Disturbance of human remains	Class III	None required	Less than Significant
Geology and Soils			
4.6-1: Hazards from ground surface rupture	Class III	None required	Less than significant
4.6-2: Effects from seismic ground shaking	Class III	None required	Less than significant
4.6-3: Effects from seismic-related ground failure, including liquefaction	Class III	None required	Less than significant
4.6-4: Erosion or loss of topsoil from ground disturbance	Class III	None required	Less than significant
4.6-5: Hazards from lateral spreading, subsidence, or collapse	Class III	None required	Less than significant
4.6-6: Risk from expansive soils	Class III	None required	Less than significant
Hazards / Hazardous Materials			
4.7-1: Use of hazardous materials during construction	Class III	None required	Less than significant
4.7-2: Use of hazardous materials during operations	Class III	None required	Less than significant
4.7-3: Release previously unidentified hazardous materials	Class II	**4.7-3:** Include provisions in the Hazardous Substance Control and Emergency Response Plan to address hazardous materials encountered during construction	Less than significant

TABLE ES-5 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Hazards / Hazardous Materials (cont.)			
4.7-4: Release of hazardous materials near existing schools	Class III	None required	Less than significant
4.7-5: Potential impacts to airport operations	Class III	None required	Less than significant
4.7-6: Interference with an emergency response or evacuation plan	Class III	None required	Less than significant
4.7-7: Construction and operational related wildland fires	Class II	**4.7-7:** Requires specific provisions for the Fire Management Plan required pursuant to APM HAZ-2.	Less than significant
Hydrology and Water Quality			
4.8-1: Soil erosion, sedimentation and/or pollution in surface waterways from construction activities	Class III	None required	Less than significant
4.8-2: Soil erosion, sedimentation and/or pollution in surface waterways from operation and maintenance activities	Class III	None required	Less than significant
4.8-3: Affect local underground aquifer by introducing impervious surfaces	Class III	None required	Less than significant
4.8-4: Impact local drainage patterns	Class II	**4.8-4a:** Check daily weather forecasts during construction in Whitewater River Wash **4.8-4b:** Contour post-construction topography and gradient of Whitewater River Wash to match pre-construction conditions	Less than significant
4.8-5: Impede or redirect flood flows	Class III	None required	Less than significant
Land Use, Planning and Policies			
4.9-1: Divide an established community	Class III	None required	Less than Significant
4.9-2: Conflict with applicable land use plans, policies or regulations	Class III	None required	Less than Significant
4.9-3: Conflict with the Coachella Valley Multiple Species Conservation Plan	Class II	Implement Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8 and 4.4-10	Less than Significant
Mineral Resources			
No impacts to mineral resources identified.			

TABLE ES-5 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Noise			
4.11-1: Exceed noise standards from corona noise	Class III	None required	Less than Significant
4.11-2: Exceed noise standards from transformer at Mirage Substation	Class II	**4.11-2:** Implement measures to ensure that transformer noise levels do not exceed the Riverside County noise standards for stationary sources	Less than Significant
4.11-3: Expose people to substantial vibration levels from construction	Class III	None required	Less than Significant
4.11-4: Permanently increase ambient noise levels from corona noise	Class III	None required	Less than Significant
4.11-5: Permanently increase ambient noise levels from transformer noise	Class II	Implement Mitigation Measure 4.11-2	Less than Significant
4.11-6: Generate adverse noise levels during construction	Class II	**4.11-6a:** Employ noise reduction and suppression techniques 4**.11-6b:** Prepare a nighttime noise reduction plan	Less than Significant
4.11-7: Expose nearby receptors to periodic increases in ambient noise levels	Class III	None required	Less than Significant
Population and Housing			
No impacts to population and housing identified.			
Public Services			
4.13-1: Demand for fire protection	Class II	**4.13-1:** Prepare and implement a Health and Safety Plan	Less than Significant
4.13-2: Emergency vehicle response times	Class II	**4.13-2:** Coordinate with emergency service providers	Less than Significant
4.13-3: Demand for police services	Class III	None required	Less than Significant
Recreation			
4.14-1: Construction impacts to Tri-Palm Golf Course	Class III	None required	Less than Significant
Transportation and Traffic			
4.15-1: Construction effects on traffic	Class II	**4.15-1:** Prepare/implement a traffic management plan	Less than Significant
4.15-2: Construction traffic safety hazards	Class II	Implement Mitigation Measure 4.15-1	Less than Significant
4.15-3: Construction delays for emergency vehicles	Class II	Implement Mitigation Measure 4.15-1 and 4.13-2	Less than Significant
4.15-4: Inadequate parking	Class III	None required	Less than Significant

TABLE ES-5 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Impact	Impact Class[a]	Mitigation Measure(s)	Residual Impact
Utilities and Service Systems			
4.16-1: Contact underground utility lines or facilities during construction	Class III	None required	Less than Significant

TABLE ES-6
SUMMARY OF IMPACTS AND MITIGATION FOR THE ALTERNATIVE ROUTES

Impact	Impact Class[12]	Applicable Alternatives	Mitigation Measure(s)	Residual Impact
Aesthetics				
No unique impacts to aesthetics have been identified for the alternatives; impacts and mitigation measures would be the same as those associated with the Proposed Project.				
Agriculture Resources				
No unique impacts to agricultural resources have been identified for the alternatives; impacts would be the same as those associated with the Proposed Project.				
Air Quality				
No unique impacts to air quality have been identified for the alternatives; impacts and mitigation measures would be the same as those associated with the Proposed Project.				
Biological Resources				
No unique impacts to biological resources have been identified for the alternatives; impacts and mitigation measures would be the same as those associated with the Proposed Project.				
Cultural Resources				
Except as noted below, cultural resources impacts and mitigation measures are the same as for the Proposed Project.				
4.5-ALT5-1: Impacts to historic site 33-8409, Varner Road	Class III	ALT5	None required	Less than Significant
Geology and Soils				
No unique impacts related to geology and soils have been identified for the alternatives; impacts would be the same as those associated with the Proposed Project.				
Hazards / Hazardous Materials				
No unique impacts related to hazards and hazardous materials have been identified for the alternatives; impacts and mitigation measures would be the same as those associated with the Proposed Project.				
Hydrology and Water Quality				
No unique impacts related to hydrology and water quality have been identified for the alternatives; impacts and mitigation measures would be the same as those associated with the Proposed Project.				
Land Use, Planning and Policies				
No unique impacts related to land use, planning and policies have been identified for the alternatives; impacts and mitigation measures would be the same as those associated with the Proposed Project.				

[12] Impact Classes: Class I (significant, unmitigable); Class II (less than significant with mitigation incorporated); Class III (less than significant); Class IV (beneficial)

TABLE ES-6 (Continued)
SUMMARY OF IMPACTS AND MITIGATION FOR THE ALTERNATIVE ROUTES

Impact	Impact Class[12]	Applicable Alternatives	Mitigation Measure(s)	Residual Impact
Mineral Resources				
No impacts to mineral resources have been identified for the alternatives.				
Noise				
No unique impacts related to noise have been identified for the alternatives; impacts and mitigation measures would be the same as those associated with the Proposed Project.				
Population and Housing				
No impacts to population and housing have been identified for the alternatives.				
Public Services				
No unique impacts related to public services have been identified for the alternatives; impacts and mitigation measures would be the same as those associated with the Proposed Project.				
Recreation				
No unique impacts related to recreation have been identified for the alternatives; impacts would be the same as those associated with the Proposed Project.				
Transportation and Traffic				
Except as noted below, Transportation and Traffic impacts and mitigation measures are the same as for the Proposed Project.				
4.15-ALT_-1: Underground line construction activity effects on traffic	Class II	ALT2, ALT3, ALT5, ALT6	**4.15-ALT_-1:** Cover open trenches at the end of each workday and implement a circulation and detour plan	Less than Significant
4.15-ALT_-2: Damage to roadways from trenching activities	Class II	ALT2, ALT3, ALT5, ALT6	**4.15-ALT_-2:** Repair damaged roadways to original conditions	Less than Significant
Utilities and Service Systems				
No unique impacts related to public services have been identified for the alternatives; impacts would be the same as those associated with the Proposed Project.				

CHAPTER 1
Introduction

1.1 Overview of Proposed Project

Southern California Edison Company (SCE), in its California Public Utilities Commission (CPUC) application for the Devers-Mirage 115 kV Subtransmission System Split Project (A.08-01-029), filed on January 31, 2008, seeks a Permit to Construct (PTC) electrical facilities pursuant to CPUC General Order (GO) 131-D. The application includes the Proponent's Environmental Assessment (PEA) (SCE, 2008) prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure.

The Devers-Mirage 115 kV Subtransmission System Split Project (hereinafter referred to as the Proposed Project) would serve projected electrical demand in the Electrical Needs Area, which includes the cities of Palm Springs, Rancho Mirage, Cathedral City, Palm Desert, Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community, as shown on Figure 1-1, *Proposed Project and Electrical Needs Area.* The primary components of the Proposed Project include two new 115 kV subtransmission lines and a 220 kV loop-in of the existing Devers-Coachella Valley 220 kV transmission line into Mirage Substation. Other components include reconfigurations and modifications of subtransmission line connections, substation modifications in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of Riverside County, including the Thousand Palms community. Construction is scheduled to begin by the second quarter of 2010, or immediately following receipt of all project approvals. The Proposed Project is scheduled to be operational by mid-2011.

This Draft EIR has been prepared pursuant to the California Environmental Quality Act (CEQA) and considers the potential environmental impacts from the Proposed Project and identifies and evaluates a range of alternatives.

1.2 Project Objectives, Purpose and Need

The CEQA Guidelines (Section 15126.6.a) require that a reasonable range of alternatives to the Proposed Project be described and analyzed, and they should feasibly attain most of the basic objectives of the Proposed Project. Therefore, in order to explain the need for the Proposed Project, and to guide in development and evaluation of alternatives, SCE was asked to define its project objectives. SCE identified the objectives for the Devers-Mirage 115 kV Subtransmission System Split Project in its PEA (SCE, 2008) as follows:

- Serve projected electrical demand requirements in the Electrical Needs Area, beginning in 2011[1];
- Maintain electrical system reliability within the Devers 220 kV Transmission System and Electrical Needs Area;
- Enhance operational flexibility by providing the ability to transfer load between subtransmission lines and substations within the Electrical Needs Area;
- Utilize existing SCE facilities and ROWs, where feasible;
- Meet projected need while minimizing environmental impacts; and
- Meet project need in a cost-effective manner.

According to SCE, construction of the Proposed Project is needed to provide reliable electric service to customers in the Electrical Needs Area. The Proposed Project consists of two components: splitting the Devers 115 kV Subtransmission System into two systems and looping the Devers-Coachella Valley 220 kV transmission line into the Mirage Substation. Splitting the existing 115 kV system is necessary to relieve thermal overload conditions on the existing Mirage-Concho leg of the Devers-Capwind-Concho-Mirage 115 kV subtransmission line and the Mirage-Tamarisk 115 kV subtransmission line. By splitting the existing system between the Devers and Mirage substations into two separate 115 kV subtransmission systems, the Proposed Project would improve electric system reliability and operational flexibility and would relieve electrical demand on the Devers 115 kV Subtransmission System. The 220 kV loop-in is necessary to provide voltage support to the 220 kV transmission system to avoid post transient voltage drops of 10 percent or more of pre-disturbance values when a loss of more than one 220 kV transmission line serving the Mirage Substation occurs.[2]

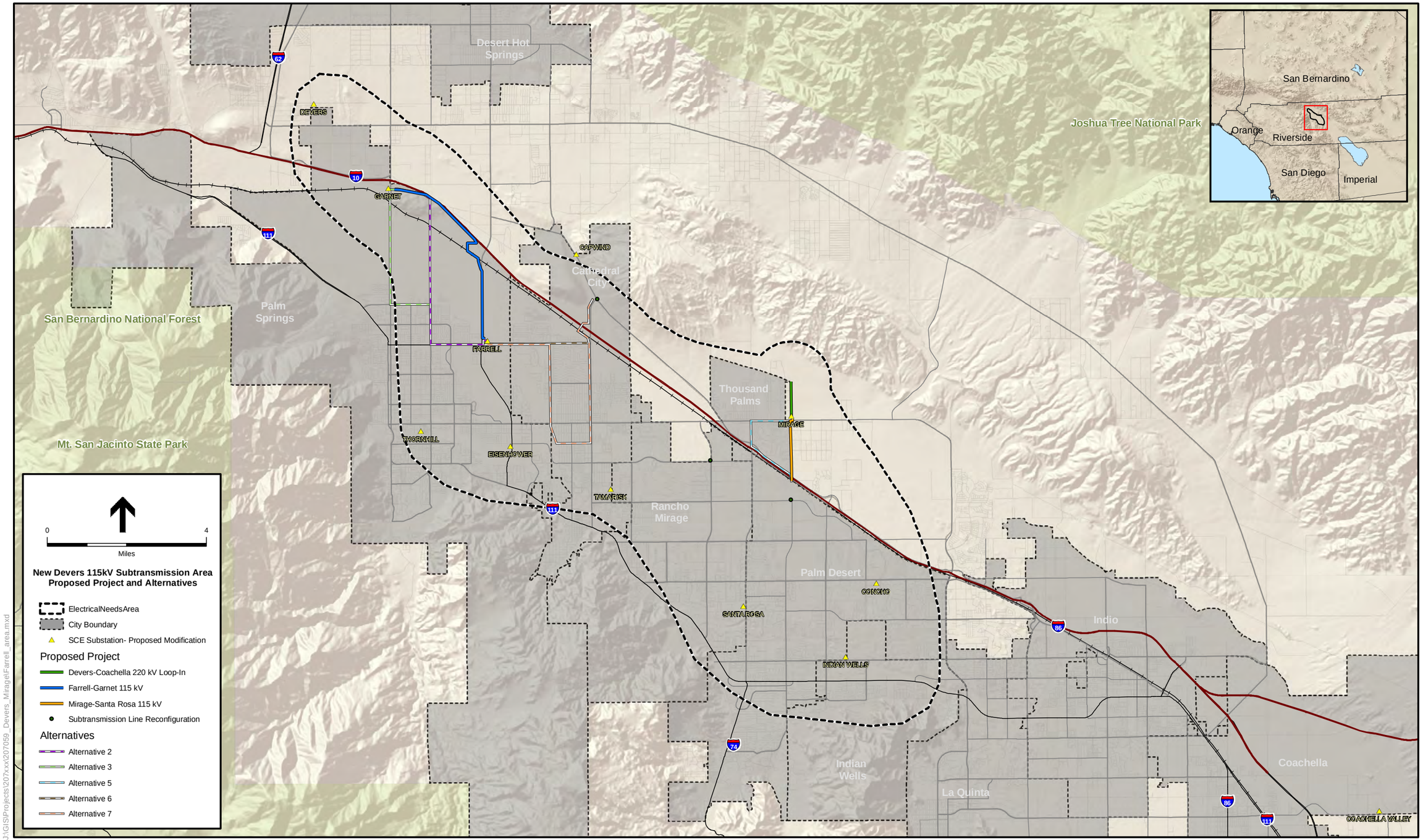
1.3 Agency Use of This Document

Section 15124(d) of the State CEQA Guidelines requires that an EIR contain a statement briefly describing the intended uses of the EIR. The State CEQA Guidelines indicate that the EIR should identify the ways in which the Lead Agency and any responsible agencies would use this document in their approval or permitting processes. The following discussion summarizes the roles of the agencies and the intended uses of the EIR.

1.3.1 CPUC Process

Pursuant to Article XII of the Constitution of the State of California, the CPUC is charged with the regulation of investor-owned public utilities, including SCE. The CPUC is the lead State agency for CEQA compliance in evaluation of the SCE's proposed Devers-Mirage 115 kV Subtransmission System Split Project, and has directed the preparation of this EIR. This EIR will

1 This objective was modified from the objective listed in the PEA to reflect the revised project schedule.
2 The North American Electric Reliability Council (NERC), Western Electricity Coordinating Council (WECC) reliability standards state that transmission system post-transient voltage drops should not exceed 10 percent of their pre-disturbance value under a "normal minus two" contingency.



SOURCE: SCE, 2008

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 1-1

Proposed Project and Electrical Needs Area

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be used by the CPUC, in conjunction with other information developed in the CPUC's formal record, to act on SCE's application for a Permit to Construct (PTC) for construction and operation of the Proposed Project. Under CEQA requirements, the CPUC will determine the adequacy of the Final EIR and, if adequate, will certify the document as complying with CEQA. The CPUC will also act on SCE's application for a PTC. If the CPUC approves a project with significant and unmitigable impacts, it must state why in a "Statement of Overriding Considerations," which would be included in the CPUC's decision on the application.

1.3.2 Other Agencies

Several other State agencies will rely on information in this EIR to inform them in their decision over issuance of specific permits related to project construction or operation. In addition to the CPUC, State agencies such as the Department of Transportation, Department of Fish and Game, Regional Water Quality Control Board, and Office of Historic Preservation would be involved in reviewing and/or approving the project. On the federal level, agencies with potential reviewing and/or permitting authority include the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service.

No local discretionary (e.g., use) permits are required, since the CPUC has preemptive jurisdiction over the construction, maintenance, and operation of SCE facilities in California. SCE would still have to obtain all ministerial building and encroachment permits from local jurisdictions, and the CPUC's General Order 131-D requires SCE to comply with local building, design, and safety standards to the greatest degree feasible to minimize project conflicts with local conditions. The CPUC's authority does not preempt special districts, such as Air Quality Management Districts, or other State agencies or the federal government. SCE would obtain permits, approvals, and licenses as needed from, and would participate in reviews and consultations as needed with, federal, State, and local agencies as shown in Table 1-1.

1.4 Public Review and Comment

1.4.1 Scoping

CEQA Guidelines Section 15083 provides that a "Lead Agency may…consult directly with any person…it believes will be concerned with the environmental effects of the project." Scoping is the process of early consultation with the affected agencies and public prior to completion of a Draft EIR. Section 15083(a) states that scoping can be "helpful to agencies in identifying the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in an EIR and in eliminating from detailed study issues found not to be important." Scoping is an effective way to bring together and consider the concerns of affected State, regional, and local agencies, the project proponent, and other interested persons (CEQA Guidelines Section 15083(b)). Scoping is not conducted to resolve differences concerning the merits of a project or to anticipate the ultimate decision on a proposal. Rather, the purpose of scoping is to help ensure that a comprehensive and focused EIR will be prepared that provides a firm basis for the decision-making process.

TABLE 1-1
SUMMARY OF POTENTIAL PERMIT REQUIREMENTS

Agency	Permits and Other Requirements	Jurisdiction/Purpose
Federal Agencies		
U.S. Bureau of Land Management (BLM) Agency	Right-of-Way Grant/Finding of No Significant Impacts (FONSI)/Notice to Proceed for transmission line	Construction on lands administered or under the jurisdiction of BLM
U.S. Army Corps of Engineers	Nationwide Permit, Section 404 of Clean Water Act	Fill in a wetland, water of the U.S.
U.S. Fish and Wildlife Service	Endangered Species Act Section 7 Consultation	Consultation on federally-listed species
Federal Aviation Administration (FAA)	7460(1) Permit and Notice Proposed Construction or Alteration	Airports and airline safety
State Agencies		
California Public Utilities Commission	Permit to Construct	Project approval and CEQA review
California Department of Fish and Game	Endangered Species Act Section 10 Consultation	Consultation on State-listed species
	Fish & Game Code Section 1600 Streambed Alteration Agreement	Alteration or construction in a streambed or drainage channel
Office of Historic Preservation	National Historic Preservation Act Section 106 Consultation	Consultation on cultural and/or historic resources
State Water Resources Control Board	NPDES General Permit for storm water	Construction impacting one or more acres
Regional Water Quality Control Board	Storm Water Pollution Prevention Plan	Clean Water Act, Section 401
California Department of Transportation (Caltrans)	Oversized Load Permits and Road Encroachments	All work that is conducted on, under, or over State roads.
Local Agencies and Utilities		
Coachella Valley Water District	Utility Clearance and Encroachment Permit (as required)	
Riverside County	Oversized Load Permits and Road Encroachment Permits	All work that is conducted on, under, or over County roads
Cities	Road Encroachment Permits, Flood Control Channel Encroachment Permit, Temporary Occupancy Permit for the material and Storage Yards, Fugitive Dust Control Plans (for cities with SCAQMD approved fugitive dust control ordinances)	Work within city roads, food control/drainage channels, and other lands
Southern California Gas Company	Pipeline Encroachment Permit	Activities in areas of the pipeline
Union Pacific Railroad	Encroachment Permit	Activities in areas of the railroad
Metropolitan Water District	Line Crossing Permit for Julian Hinds-Mirage 220 kV transmission line crossing	Crossing of transmission lines

On Tuesday, April 15, 2008, the CPUC published and distributed a Notice of Preparation (NOP) to advise interested local, regional, and State agencies, and interested public, that an EIR would be prepared for the Proposed Project. The NOP solicited both written and verbal comments on the EIR's scope during a 30-day comment period and provided information on the forthcoming public scoping meeting. Additionally, the NOP presented the background, purpose, description, and location of the Proposed Project, potential issues to be addressed in the EIR, and contact information for additional information regarding the project.

The CPUC published legal advertisements about the scoping period in The Desert Sun on Sunday, April 20, 2008, and Sunday, April 27, 2008, as well as The Desert Post Weekly on Thursday, April 24, 2008. These papers are circulated in the City of Palm Springs and the greater Coachella Valley area. Additionally, an electronic copy of the NOP was posted on the CPUC's website. The comment period extended through May 15, 2008. The public was encouraged to submit written comments on the scope, content, and format of the environmental document by mail, facsimile, or electronic mail to the CPUC.

The CPUC conducted a scoping meeting on Tuesday, April 29, 2008. The public scoping meeting was held from 6:00 p.m. to 8:00 p.m. in the Mary Stuart Rogers Gateway Building at the California State University San Bernardino Palm Desert Campus at 37-500 Cook Street, Palm Desert, California. Meeting attendees were encouraged to sign in and were provided with materials including presentation slides, a comment card, and a speaker card. Copies of the NOP were available upon request. A presentation was given at the public scoping meeting that included an overview of the environmental review process, the regional context, project background, project objectives, project description, project alternatives, and role of the public comments. Following the presentation public comments were taken and documented.

A Scoping Report was developed for use by the public to have access to and understand the comments received during the scoping period. Appendix A to this EIR contains the Scoping Report. The report includes verbal and written public comments received during the scoping period (April 15, 2008 to May 15, 2008). The NOP, newspaper legal advertisements, and the project website notification are presented in the appendices of the Scoping Report. The CPUC used this report as a tool to ensure the preparation of a comprehensive and focused EIR. Pursuant to CEQA Guidelines Section 15082, all public comments will be considered in the EIR process.

1.4.2 Public Comment on the Draft EIR

This Draft EIR is being circulated to local and State agencies and to interested individuals who may wish to review and comment on the report. Written comments may be submitted to the CPUC during the 45-day public review period. Verbal and written comments on this Draft EIR will be accepted via regular mail, fax, and e-mail and at a noticed public meeting (either noticed in this document or under separate cover). All comments received will be addressed in a Response to Comments addendum document, which, together with this Draft EIR, will constitute the Final EIR for the Proposed Project.

This Draft EIR identifies the environmental impacts of the Proposed Project on the existing environment, indicates how those impacts would be mitigated or avoided, and identifies and evaluates alternatives to the Proposed Project. This document is intended to provide the CPUC with the information required to exercise its jurisdictional responsibilities with respect to the Proposed Project, which would be considered at a separate noticed public Commission meeting.

CEQA requires that a lead agency shall neither approve nor implement a project as proposed unless the significant environmental impacts have been reduced to an acceptable level. An acceptable level is defined as eliminating, avoiding, or substantially lessening significant environmental effects to below a level of significance. If the Lead Agency approves the project, even though significant impacts identified in the final EIR cannot be fully mitigated, the lead agency must state in writing the reasons for its action. Findings and a Statement of Overriding Considerations (SOC) must be included in the record of project approval and mentioned in the Notice of Determination (NOD).

1.5 Reader's Guide to This EIR

This EIR is organized as follows:

Executive Summary. Provides a summary description of the Proposed Project, the alternatives, their respective environmental impacts, and the Environmentally Superior Alternative. Also provides a tabulation of the impacts and mitigation measures for the Proposed Project and alternatives.

Chapter 1, *Introduction*. Provides a discussion of the background, project objectives, briefly describing the proposed Devers-Mirage 115kV Subtransmission System Split Project, and outlining the public agency use of the EIR.

Chapter 2, *Project Description*. Provides a detailed description of the proposed Devers-Mirage 115kV Subtransmission System Split Project.

Chapter 3, *Alternatives and Cumulative Projects*. Provides a description of the alternatives screening and evaluation process, description of alternatives considered but eliminated from further analysis and the rationale therefore, and descriptions of the alternatives analyzed in Chapter 4. Also identifies the cumulative projects considered in the analysis of cumulative impacts.

Chapter 4, *Environmental Analysis*. Provides a comprehensive analysis and assessment of impacts (including cumulative impacts) and mitigation measures for the Proposed Project and several alternatives, including the No Project Alternative. This section is divided into main sections for each environmental issue area (e.g., Air Quality, Biological Resources, etc.) that contain the environmental settings, impacts, and cumulative effects of the Proposed Project and each alternative.

Chapter 5, *Comparison of Alternatives*. Identifies the CEQA Environmentally Superior Alternative and provides a discussion of the relative advantages and disadvantages of the Proposed Project and the alternatives that were evaluated.

Chapter 6, *CEQA Statutory Sections*. Provides a discussion of growth-inducing impacts, irreversible environmental changes, and cumulative impacts.

Chapter 7, *Report Preparers*. Identifies the primary authors of this Draft EIR

Chapter 8, *Mitigation Monitoring, Reporting, and Compliance Plan*. Provides a discussion of the CPUC's mitigation monitoring program requirements for the project as approved by the CPUC.

Appendix A contains the Scoping Report which includes the NOP, and copies of comments received on the NOP. Other technical appendices, and the certificate of service and mailing list, are also included in this Draft EIR.

1.6 References

Southern California Edison (SCE), 2008. *Proponent's Environmental Assessment for the Devers-Mirage 115 kV Subtransmission System Split Project*, January 2008.

CHAPTER 2
Project Description

2.1 Introduction

This EIR examines the environmental impacts associated with construction and operation of the Southern California Edison (SCE) Devers-Mirage 115 kV Subtransmission System Split Project (the Proposed Project). As described in more detail in the following sections, the primary components of the Proposed Project include two new 115 kV subtransmission[1] line segments and a loop-in of the existing Devers-Coachella Valley 220 kV transmission line into Mirage Substation. Other components include rearrangement and modification of subtransmission line connections, replacement of 220 kV and 115 kV circuit breakers, installation of one 280 MVA 220/115 kV transformer at Mirage Substation, and the construction of other substation modifications in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of Riverside County, including the Thousand Palms community.

2.2 Project Location

The Proposed Project is located in eastern Riverside County, as shown in Figure 1-1. The Proposed Project Electrical Needs Area includes the Cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community.

2.3 Summary of Project Components

The Proposed Project consists of a number of distinct project components that together make up the entire Proposed Project, including two new 115 kV subtransmission lines, three 115 kV subtransmission line reconfigurations, a new 220 kV transmission line, substation modifications, and an upgraded telecommunications infrastructure. This section presents a brief overview of each of these components. Sections 2.4 through 2.7 present detailed discussions of each of these components including details on proposed operations, construction practices, and the schedules for construction and start of operations.

[1] The term subtransmission is used here to describe transmission lines used to supply a local distribution network off the primary higher voltage long distance transmission lines.

2.3.1 115 kV Subtransmission Lines

The Devers Subtransmission System consists of multiple 115 kV subtransmission lines in the Electrical Needs Area. The existing 115 kV subtransmission lines that would be affected by the Proposed Project as part of the newly created Devers 115 kV Subtransmission System are the Garnet-Santa Rosa, Tamarisk-Thornhill, and Devers-Eisenhower 115 kV lines. The Garnet-Santa Rosa 115 kV subtransmission line is also proposed to be reconfigured as part of the Mirage 115 kV Subtransmission System work described in Section 2.4.

At the time SCE filed its Application with the CPUC, two 115 kV subtransmission lines were connected to the Mirage Substation transformers: the Devers-Capwind-Mirage-Concho and the Mirage-Tamarisk 115 kV subtransmission lines. However, in 2008, the Mirage-Capwind-Concho-Devers 115 kV subtransmission line was looped into the Mirage Substation 115 kV switchrack, creating the Devers-Capwind-Mirage and the Mirage-Concho 115 kV subtransmission lines. Thus, there are currently three 115 kV lines connected to the Mirage Substation. The Proposed Project would include the construction of the new Mirage-Santa Rosa 115 kV subtransmission line and reconfiguration of the existing Devers-Capwind-Mirage, Garnet-Santa Rosa, Mirage-Concho, Mirage-Tamarisk, and the Santa Rosa-Tamarisk 115 kV subtransmission lines. As a result, the following 115 kV subtransmission lines would be served from Mirage Substation: Mirage-Concho, Mirage-Capwind-Devers-Tamarisk, Mirage-Santa Rosa-Tamarisk, and the newly constructed Mirage-Santa Rosa subtransmission line.

2.3.2 220 kV Transmission Lines

The Proposed Project would include looping in the existing Devers-Coachella Valley 220 kV transmission line, creating the Devers-Mirage No. 2 and the Mirage-Coachella Valley 220 kV transmission lines within the existing ROW located north of Mirage Substation. Additionally, the Proposed Project would require the relocation of the existing Devers-Mirage, Julian Hinds-Mirage, and Mirage-Ramon 220 kV transmission line components within the existing ROW and at Mirage Substation. A total of eight new lattice steel towers (LSTs), one tubular steel pole (TSP), and the removal of four LSTs, plus the addition of new conductor, insulators, and equipment would be required for this component, See Section 2.5 for a more detailed description.

2.3.3 Substations

The Proposed Project would add minor improvements and/or upgrades to 10 existing substations within the project area. All electrical component improvements and/or upgrades would be installed within the existing fenced perimeter surrounding each substation. All construction would take place within the existing substation fences or walls, with the exception of Farrell Substation, where a new driveway would be constructed for permanent access. See Section 2.6 for detailed discussion of all substation components. In addition, a description of substation construction process, personnel, equipment, waste materials, and schedules is provided in Sections 2.6.11 through 2.6.13.

2.3.4 Telecommunications

As part of the Proposed Project's changes and upgrades, existing fiber optic cables would be transferred from existing poles to the new poles to be installed for both the proposed Mirage-Santa Rosa and Farrell-Garnet 115 kV subtransmission lines. Additionally telecommunications equipment, including channel bank and fiber optic equipment, would be installed at Concho, Devers, Eisenhower, Farrell, Garnet, Indian Wells, Mirage, Santa Rosa, Tamarisk, and Thornhill substations, and at the Edom Hill Communications Site and Palm Springs Service Center. See Section 2.7 for a more detailed description of this component.

2.4 115 kV Subtransmission Lines

2.4.1 Overview of the Proposed Devers 115 kV System

Existing Configuration

Devers-Farrell-Windland 115 kV Line

The Devers-Farrell-Windland 115 kV subtransmission line is constructed on single-circuit structures and parallels Diablo Road southerly to Garnet Road south of the Interstate 10 (I-10) Freeway. At Garnet Road, the line proceeds easterly past Indian Avenue around Garnet Substation. The line proceeds easterly by southeasterly, paralleling the I-10 Freeway until immediately west of Gene Autry Trail, where it crosses the Union Pacific Railroad (UPRR) in a southeasterly direction to the east side of Gene Autry Trail. The line proceeds south on the east side of Gene Autry Trail until it reaches Farrell Substation.

Tamarisk-Thornhill 115 kV Line

The Tamarisk-Thornhill 115 kV subtransmission line is constructed on single-circuit structures. The line proceeds west out of Tamarisk Substation until Date Palm Drive, where it proceeds north to Dinah Shore Drive. At Dinah Shore Drive, the line proceeds west to Gene Autry Trail, where it turns north and proceeds through Eisenhower Substation. At East Sunny Dunes Road, the line proceeds west to Thornhill Substation.

Devers-Eisenhower 115 kV Line

The Devers-Eisenhower 115 kV subtransmission line proceeds east out of Devers Substation parallel to the Devers-Mirage 220 kV transmission line corridor until Date Palm Drive, where it proceeds south to 33rd Avenue. At 33rd Avenue, the line proceeds west to Eisenhower Substation, located at East Mesquite Avenue and Gene Autry Trail.

Proposed Configuration

Proposed Farrell-Garnet 115 kV Line Configuration

Implementation of the Proposed Project would result in the new Farrell-Garnet 115 kV subtransmission line by replacing approximately 5.3 miles of the Devers-Farrell-Windland 115 kV subtransmission line on single-circuit wood poles between Garnet Substation and Farrell Substation. The existing line would be replaced with new double-circuit light-weight steel (LWS) and TSPs using primarily existing rights-of-way (ROW) and public road franchise locations. The existing Devers-Farrell-Windland 115 kV line would be transferred to the new double-circuit poles and the existing poles would be removed.

One exception to using existing ROW would be the portion of the proposed alignment immediately north of the UPRR, where the proposed alignment would deviate from the existing SCE ROW for approximately 0.8 mile at the request of the private property owner (SCE, 2009). Just north of the UPRR, the proposed subtransmission line would turn in a northwesterly direction, establishing a new 30-foot wide ROW along the north side of the UPRR for approximately 1,680 feet, where the line would turn north and continue for approximately 1,070 feet to a point where it would turn east and proceed for approximately 1,200 feet. The line would then turn northeast and continue for approximately 330 feet to Salvia Road, where the new proposed 115 kV ROW would rejoin the existing SCE ROW on the south side of Salvia Road. (See Figure 2-1, *Existing Conditions and Proposed Farrell-Garnet 115 kV Lines* and Figure 2-2, *Proposed Farrell-Garnet 115 kV Line*.)

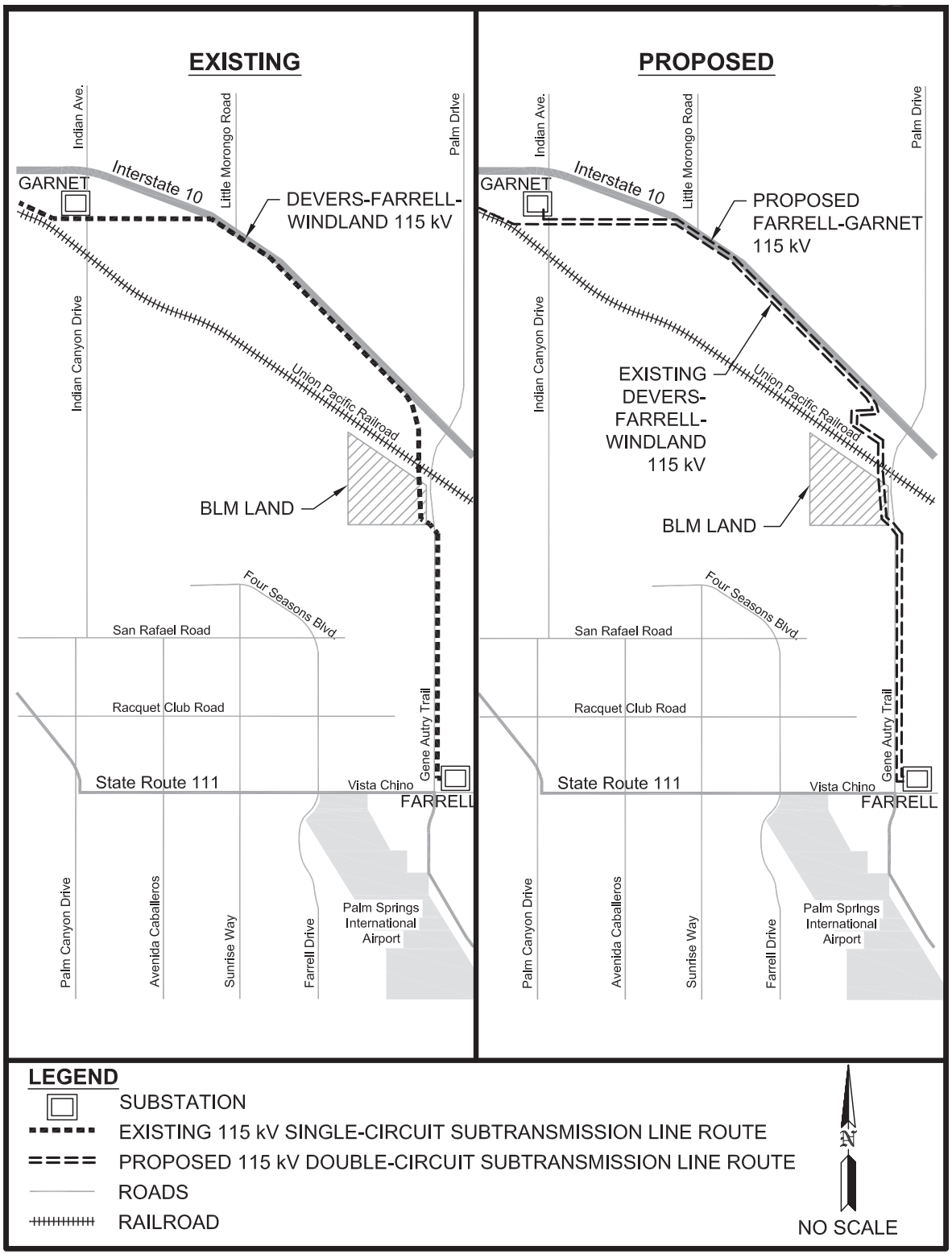
Reconfigured Eisenhower-Tamarisk 115 kV Line

The Proposed Project would result in the Eisenhower-Tamarisk 115 kV subtransmission line through the reconfiguration of the existing Tamarisk-Thornhill 115 kV subtransmission line inside Eisenhower Substation. This new line would remain open at Tamarisk Substation and be available as a 115 kV system parallel point between the Devers and Mirage subtransmission systems. All work would be done inside the Eisenhower Substation.

Reconfigured Devers-Eisenhower-Thornhill 115 kV Line

The Proposed Project would create the Devers-Eisenhower-Thornhill 115 kV subtransmission line through the reconfiguration of the existing Tamarisk-Thornhill 115 kV subtransmission line and connecting it to the existing Devers-Eisenhower 115 kV subtransmission line inside Eisenhower Substation.

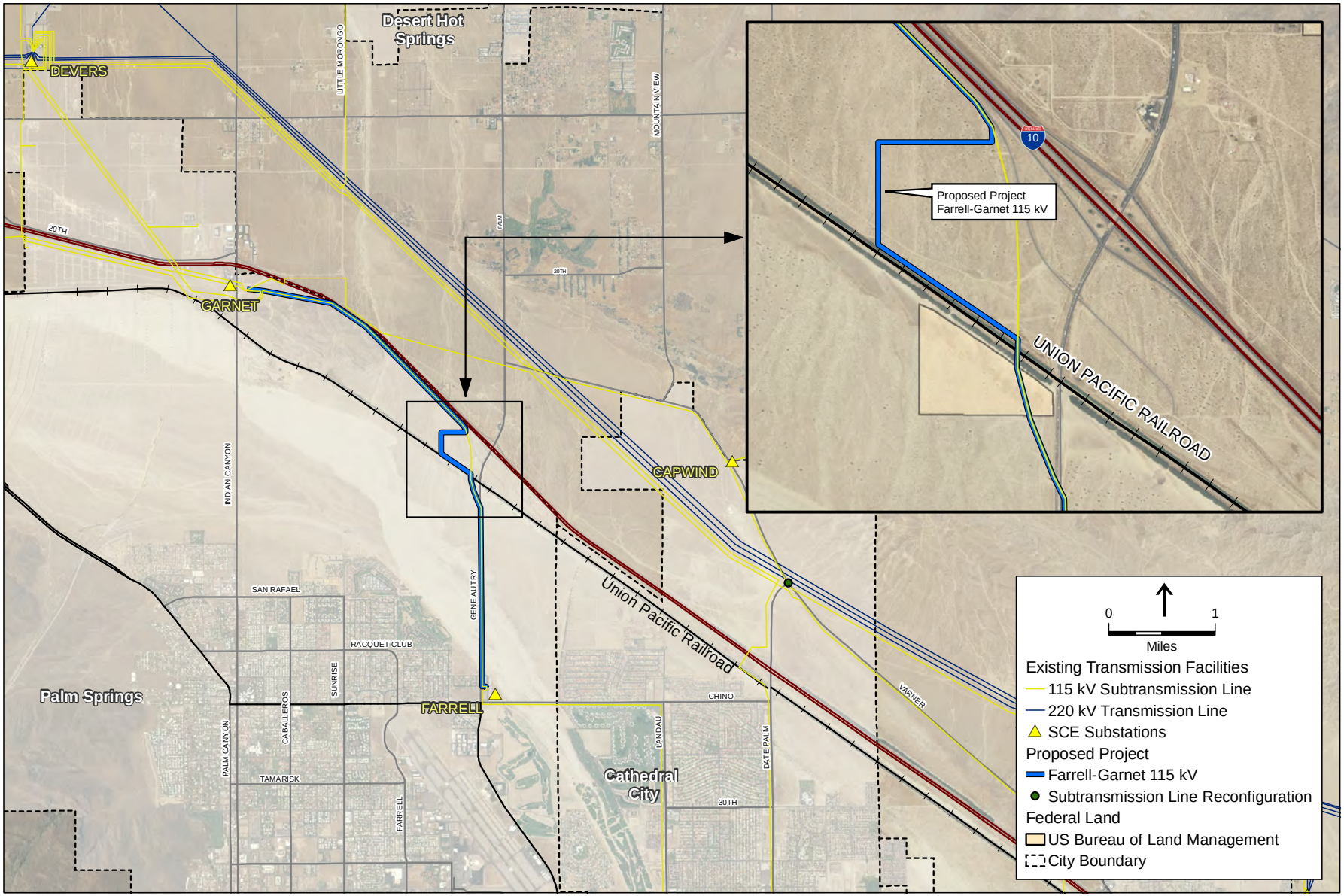
The remaining Tamarisk-Thornhill 115 kV subtransmission line segment between Thornhill and Eisenhower substations would be connected at the 115 kV switchrack using two new TSPs inside the substation, to the existing Devers-Eisenhower 115 kV subtransmission line position. All work would be done inside the Eisenhower Substation.



SOURCE: SCE, 2008a.

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 2-1
Existing Conditions and
Proposed Farrell-Garnet 115 kV Line



SOURCE: SCE, 2008

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 2-2

Proposed Project - Farrell Garnet 115 kV

Engineering Plan to Support the Proposed Devers 115 kV System

As discussed above, to accomplish the subtransmission line construction for the proposed Devers 115 kV Subtransmission System, approximately 157 new poles would be installed. Approximately 142 poles would be direct-buried, double-circuit LWS poles. The LWS poles would be approximately 65 to 80 feet in length, of which approximately 10 feet would be buried (see Figure 2-3, *Typical 115 kV Line Pole Configurations*). The base diameters of the LWS poles would vary between 24 inches and 36 inches and the top diameters would vary between 12 inches and 16 inches depending on the pole class. The remaining 15 poles would be bolted based TSPs between 70 and 100 feet tall above ground, depending on their specific location. The TSPs would be bolted to steel-reinforced (rebar) concrete footings approximately six feet in diameter and at least 22 feet below the ground surface. The above-ground portion of the footing would be approximately two feet. Existing distribution lines attached to the existing wood poles would be transferred to the new LWS and TSP poles.

The Proposed Project would utilize 954 stranded aluminum conductor (SAC) conductor for the proposed Farrell-Garnet 115 kV subtransmission line and for the reconfigured 115 kV line segments discussed above.

Construction Plan to Support Proposed Devers 115 kV System

Proposed Farrell-Garnet 115 kV Line

To construct the proposed Farrell-Garnet 115 kV subtransmission line, the following would be required:

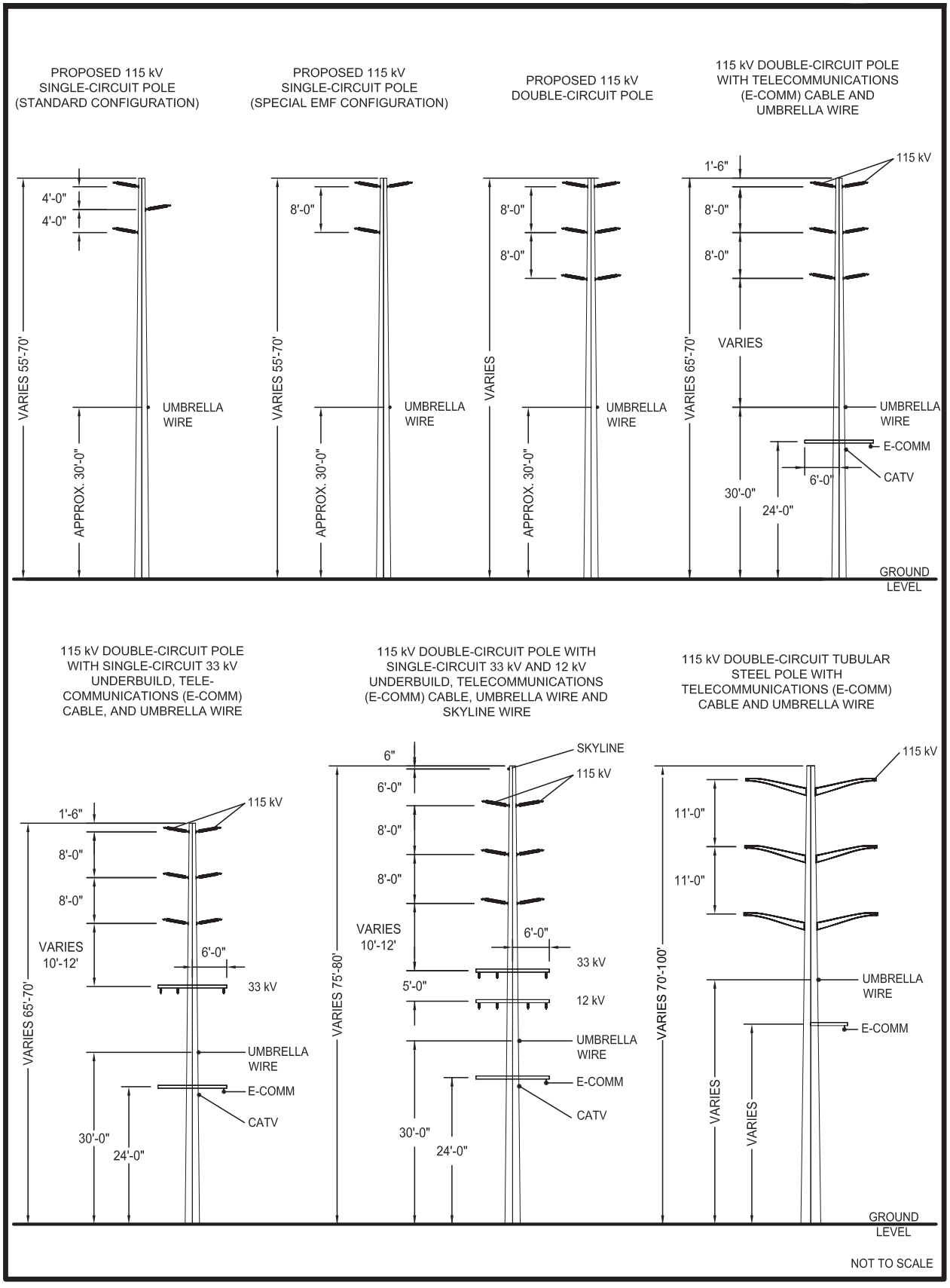
- Install approximately 15 TSPs and approximately 142 double-circuit LWS poles between Farrell and Garnet substations;
- Remove 138 single-circuit wood poles;
- For the existing circuit, transfer 5.3 miles of existing 653 kcmil ACSR and 0.5 mile of new 653 kcmil ACSR conductor to the new double-circuit poles; and
- Install 5.8 miles of new 954 SAC conductor to the new double-circuit poles.

Reconfigured Eisenhower-Tamarisk 115 kV Line

To construct the reconfigured Eisenhower-Tamarisk 115 kV subtransmission line, the following would be required:

- Install two TSPs inside Eisenhower Substation;
- Remove one TSP inside Eisenhower Substation; and

Inside Eisenhower Substation, open the underground tap between the Tamarisk and Thornhill substations, connect the Tamarisk 115 kV subtransmission line leg to one of the TSPs, and connect the TSP to the existing substation rack.



Devers-Mirage 115 kV Subtransmission System Split Project . 207059

SOURCE: SCE, 2008a.

Figure 2-3

Typical 115 kV Subtransmission Line Pole Configurations

Reconfigured Devers-Eisenhower-Thornhill 115 kV Line

To construct the reconfigured Devers-Eisenhower-Thornhill 115 kV subtransmission line, the remaining Thornhill 115 kV subtransmission line leg would be connected to the Devers-Eisenhower 115 kV subtransmission line inside Eisenhower Substation, using the poles previously installed at Eisenhower Substation for the reconfigured Eisenhower-Tamarisk 115 kV subtransmission line.

Staging and Access

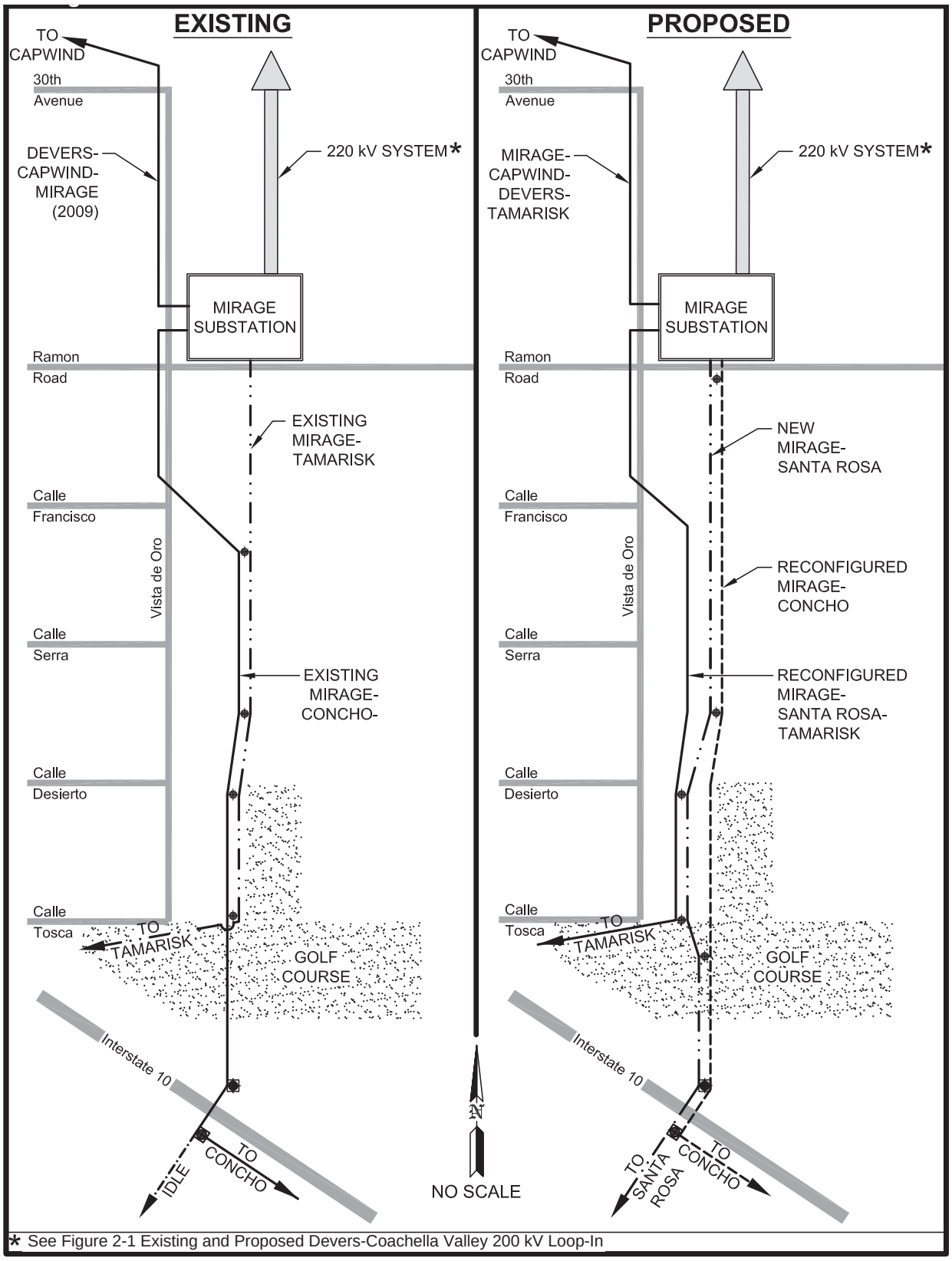
The primary material staging areas would be at Devers and Eisenhower substations, due to their proximity to the work sites. Material and equipment would be staged at these substations and would include poles, wire reels, insulators, hardware, heavy equipment, light trucks, construction trailers, and portable sanitation facilities. All material for the 115 kV subtransmission line work would be delivered by truck. Construction traffic would primarily use Diablo Road for access to Devers Substation and Palm Drive to Mesquite Avenue for access to Eisenhower Substation. Construction traffic would be scheduled for off-peak traffic hours to the extent possible. Poles would be loaded out of Devers Substation and delivered to the specific locations for installation. For access to project construction sites, construction traffic would primarily use common highways (e.g., Garnet Avenue and Gene Autry Trail or Palm Drive and Mesquite Avenue).

2.4.2 Overview of the Proposed Mirage 115 kV System

Existing Configuration

The Devers-Capwind-Mirage-Concho 115 kV subtransmission line was looped into the Mirage Substation 115 kV switchrack forming the Devers-Capwind-Mirage and Mirage-Concho 115 kV subtransmission lines in 2008. The Mirage-Concho and Mirage-Tamarisk 115 kV subtransmission lines currently proceed south out of Mirage Substation toward I-10 within an existing SCE ROW and the Devers-Capwind-Mirage 115 kV subtransmission line proceeds north out of Mirage Substation, within an existing SCE ROW (see Figure 2-4, *Existing and Proposed Mirage-Santa Rosa 115 kV Line Configurations*).

The work performed in 2008 was solely for the purpose of increasing the reliability of the two existing 115 kV subtransmission lines by utilizing a 115 kV switchrack to connect the 115 kV subtransmission lines to either of the two existing 220/115 kV transformers inside Mirage Substation in the event one of the 220/115 kV transformers were to fail. Without performing this work in 2008, the 115 kV subtransmission lines could have experienced sustained outages or substandard voltage related problems should either transformer fail, thus losing the power flow on the affected 115 kV subtransmission line from Mirage Substation. This work was necessary to mitigate power outages to customers or substandard voltage-drops on the 115 kV subtransmission lines served by the Mirage Substation prior to the completion of the Proposed Project.



SOURCE: SCE, 2008a.

Figure 2-4
Existing and Proposed Mirage-Santa Rosa
115 kV Subtransmission Line Configuration

Mirage-Concho and Mirage-Tamarisk 115 kV Lines

The 2008 Mirage-Concho and Mirage-Tamarisk 115 kV subtransmission lines share an existing ROW south of Mirage Substation that consists of local franchise locations and easements. Between Ramon Road and Calle Desierto, the ROW is approximately 140 feet wide. From Calle Desierto to the southern edge of Tri-Palm Estates, at approximately Calle Tosca Drive, the ROW curves slightly to the east. In this area the ROW is approximately 150 feet wide. From Calle Tosca to I-10, the ROW straightens and is approximately 50 feet wide (see Figure 2-4).

The 2008 Mirage-Concho line is on single-circuit wood poles in an easement on the east side of Vista de Oro, from Mirage Substation to a point just south of Calle Francisco, where it crosses Vista de Oro in a southeasterly direction to join the Mirage-Tamarisk line. The Mirage-Tamarisk line is on single-circuit wood poles within an existing SCE easement on the east side of Vista de Oro until it joins the Mirage-Concho line just south of Calle Francisco.

From the juncture of the Mirage-Concho and Mirage-Tamarisk lines at Calle Francisco to a point just south of Tri-Palm Estates at Calle Tosca, the two lines are on double-circuit wood poles and one double-circuit TSP. The Mirage-Concho line is strung on the west side of these double-circuit structures and the Mirage-Tamarisk line is strung on the east side of the structures.

At the intersection of Vista de Oro and Calle Tosca, where the existing double-circuit TSP is located, the Mirage-Tamarisk line proceeds in a westerly direction to Tamarisk Substation on existing support structures. The Mirage-Concho line proceeds south on single-circuit wood poles until it reaches an existing TSP on the north side of I-10. This TSP is engineered for a double-circuit line but currently has only the Mirage-Concho line strung on the structure.

South of I-10, the Mirage-Concho line is strung on the east side of a double-circuit TSP before continuing to Concho Substation on existing single-circuit structures. The west side of this TSP is strung with an idle 115 kV subtransmission line segment that exists on single-circuit structures between I-10 and the corner of Gerald Ford Drive and Portola Avenue.

Devers-Capwind-Mirage 115 kV Line

The Devers-Capwind-Mirage 115 kV subtransmission line is on single-circuit wood poles in an SCE easement, franchise locations, and on fee-owned ROW north of Mirage Substation. This ROW extends approximately 0.8 mile north of Mirage Substation, adjacent to Vista de Oro, from Mirage Substation to 30th Avenue, which is the approximate intersection of the existing Devers-Coachella Valley 220 kV ROW. This 115 kV subtransmission line continues northwest in the existing Devers-Coachella Valley 220 kV ROW until the intersection of Date Palm Drive and Varner Road where it continues along Varner Road until it rejoins the Devers-Coachella Valley 220 kV ROW and then continues to Devers Substation.

Proposed Configuration

The Proposed Project would result in three 115 kV subtransmission lines that would proceed south out of Mirage Substation within the existing SCE ROW. These three lines would be the reconfigured Mirage-Santa Rosa-Tamarisk line, the proposed Mirage-Santa Rosa line, and the reconfigured Mirage-Concho line. The reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission line would proceed north out of Mirage Substation on existing structures.

There are no changes or additions to or expansion of the ROWs discussed above for this part of the Proposed Project. Construction of this portion of the Proposed Project is expected to occur completely within existing SCE easements or franchise locations. Figure 2-4 shows the proposed 115 kV line and reconfigured 115 kV line segments that are created as part of the Proposed Project.

Reconfigured Mirage-Santa Rosa-Tamarisk 115 kV Line

The Mirage-Santa Rosa-Tamarisk line would exit on the west side of the Mirage Substation and would utilize existing conductor on one TSP. From this TSP, the 115 kV subtransmission line would utilize existing conductor on single-circuit wood poles in the same easement location previously occupied by the Mirage-Concho line. The Mirage-Santa Rosa-Tamarisk line would be on the east side of Vista de Oro, from Mirage Substation to a point just south of Calle Francisco, where it would cross Vista de Oro in a southeasterly direction. At Calle Francisco, two new TSPs would be installed, and the line would not proceed as far east as the Mirage-Concho line previously did, where it had merged with the Mirage-Tamarisk line.

From the second TSP, south of Calle Francisco, the Mirage-Santa Rosa-Tamarisk line would be on new single-circuit LWS poles along the west side of the ROW to Calle Desierto, where it would join with the proposed Mirage-Santa Rosa line on existing double-circuit wood poles.

The Mirage-Santa Rosa-Tamarisk line would be located on the west side of the existing double-circuit wood poles to a location adjacent to the intersection of Vista de Oro and Calle Tosca, where it would proceed west along Calle Tosca to Tamarisk and Santa Rosa substations on existing structures.

In order to complete the reconfiguration of the Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line and connect this 115 kV subtransmission line to Santa Rosa Substation, four poles would be replaced with seven new poles at the intersection of Bob Hope Drive and Dinah Shore Drive. One wood pole located at the southwest corner would be replaced with one LWS pole (with a new pole switch) and one TSP. One LWS pole located at the northeast corner would be replaced with one TSP. One TSP at the northwest corner would be replaced with one LWS pole (with a new pole switch) and one TSP. One TSP at the southeast corner would be replaced with one LWS pole (with a new pole switch) and one TSP.

The existing Garnet-Santa Rosa 115 kV subtransmission line would be eliminated and the existing wires associated with this 115 kV line and the existing or new wires on these new structures would be used to form the Mirage-Santa Rosa-Tamarisk line and the Mirage-Capwind-

Devers-Tamarisk line. The following work would be required for the proposed reconfiguration of these two lines:

- Split the existing Garnet-Santa Rosa 115 kV subtransmission line at the intersection of Bob Hope Drive and Dinah Shore Drive by removing the span of wire that connects the southwest and northeast corner poles (see Figure 2-5, *Existing and Proposed 115 kV Line Configurations at Bob Hope and Dinah Shore Drives*).

- Split the Santa Rosa-Tamarisk at the same intersection by dead-ending and grounding the Santa Rosa leg at the northwest corner pole. The portion of the Santa Rosa-Tamarisk line between Bob Hope Drive east to Portola Avenue would become idle.

- Connect the open Tamarisk leg of the existing Santa Rosa-Tamarisk 115 kV subtransmission line to the open Garnet leg of the existing Garnet-Santa Rosa 115 kV subtransmission line at the northeast corner pole of Bob Hope Drive and Dinah Shore Drive.

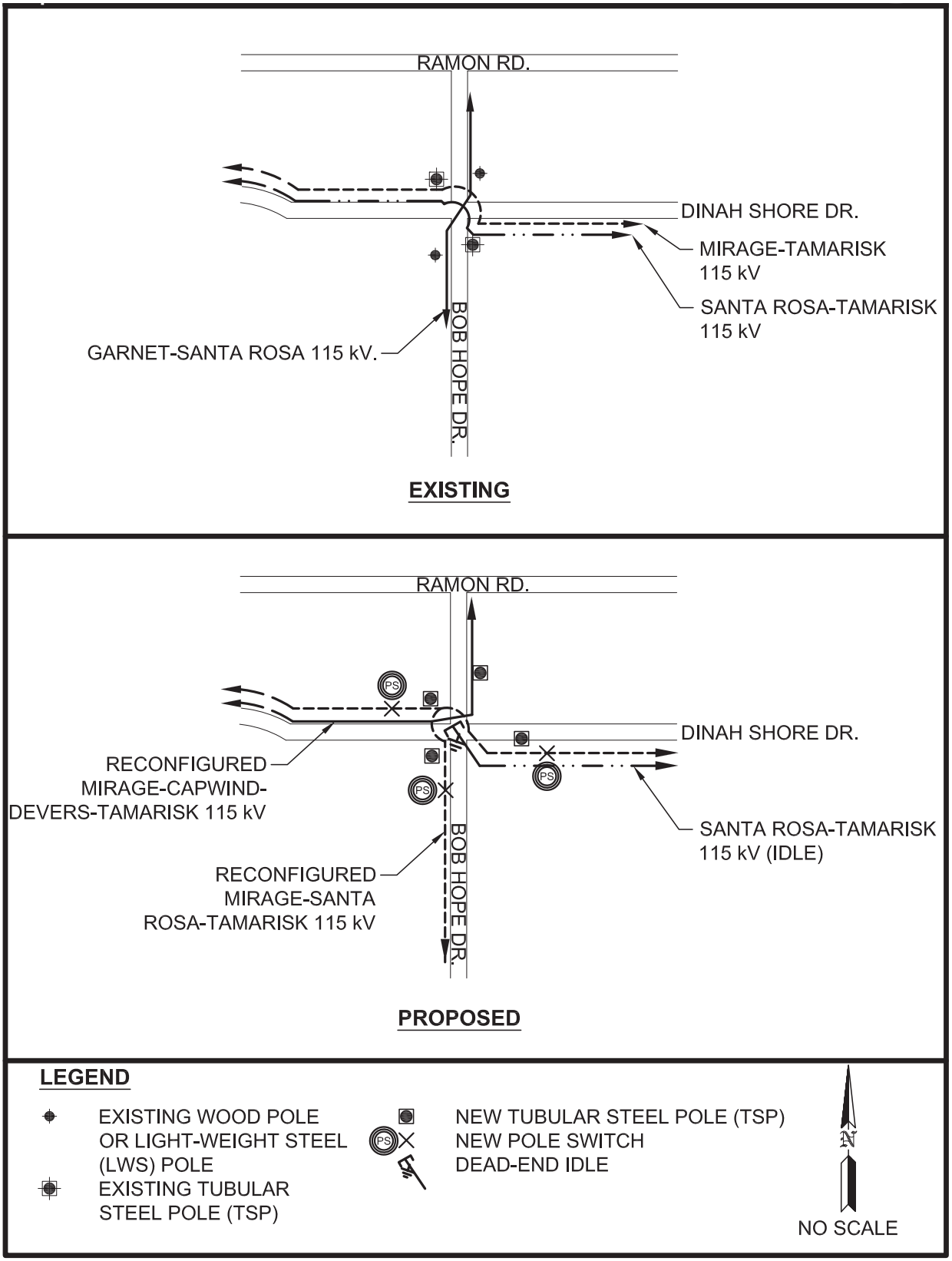
- Create the Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line by tapping the existing southern segment of the Garnet-Santa Rosa 115 kV subtransmission line to the existing Mirage-Tamarisk 115 kV subtransmission line at the northwest corner pole.

Proposed Mirage-Santa Rosa 115 kV Line

The Mirage-Santa Rosa 115 kV subtransmission line would exit south out of Mirage Substation on the new double-circuit LWS poles located in approximately the same alignment as the existing Mirage-Tamarisk line. The Mirage-Santa Rosa line would be strung on the west side of these new double-circuit structures south to Calle Francisco. From Calle Francisco the line would be on existing double-circuit wood poles to Calle Desierto, where it would proceed southwesterly to join the reconfigured Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line (discussed above). Next, the Mirage-Santa Rosa 115 kV subtransmission line would be strung on the east side of existing double-circuit wood poles between Calle Desierto and Calle Tosca, on the existing double-circuit wood poles described above.

At Calle Tosca, the Mirage-Santa Rosa line would join the Mirage-Concho 115 kV subtransmission line and proceed south on the west side of new double-circuit LWS poles. At I-10, the existing double-circuit TSP on the north side of I-10 would be installed with three additional insulators to provide for the crossing of I-10 to the existing double-circuit TSP on the south side of I-10.

The proposed Mirage-Santa Rosa 115 kV subtransmission line would be constructed by removing approximately 1,783 feet of existing single-circuit 115 kV subtransmission line between Mirage Substation and a point south of Calle Francisco. The existing single-circuit support structures used for existing Mirage-Tamarisk 115 kV subtransmission line would be replaced with new double-circuit LWS poles. An additional 2,130 feet of single-circuit 115 kV subtransmission line would be replaced from Calle Tosca to I-10. The existing single-circuit wood poles would be replaced with new double-circuit LWS poles.



SOURCE: SCE, 2008a.

Figure 2-5
Existing and Proposed 115 kV Subtransmission Line Configuration at Bob Hope and Dinah Shore Drives

South of I-10, an existing idle, single-circuit 115 kV subtransmission line between I-10 and the intersection of Gerald Ford Drive and Portola Avenue would be connected to the new 115 kV subtransmission line and energized. A wood pole on the northwest corner of Portola Avenue and Gerald Ford Drive would be replaced with a new double-circuit TSP, approximately 50 feet north of the existing wood pole (see Figure 2-6, *Existing and Proposed 115 kV Line Configurations at Portola Avenue and Gerald Ford Drive*).

From that point, the Mirage-Santa Rosa line would continue southwest to the Santa Rosa Substation on existing single-circuit structures that were part of the existing Santa Rosa-Tamarisk line. The portion of the existing Santa Rosa-Tamarisk line on Gerald Ford Avenue west to Monterey Avenue then north to Dinah Shore Drive and then west to Bob Hope Drive would become idle.

Reconfigured Mirage-Concho 115 kV Line

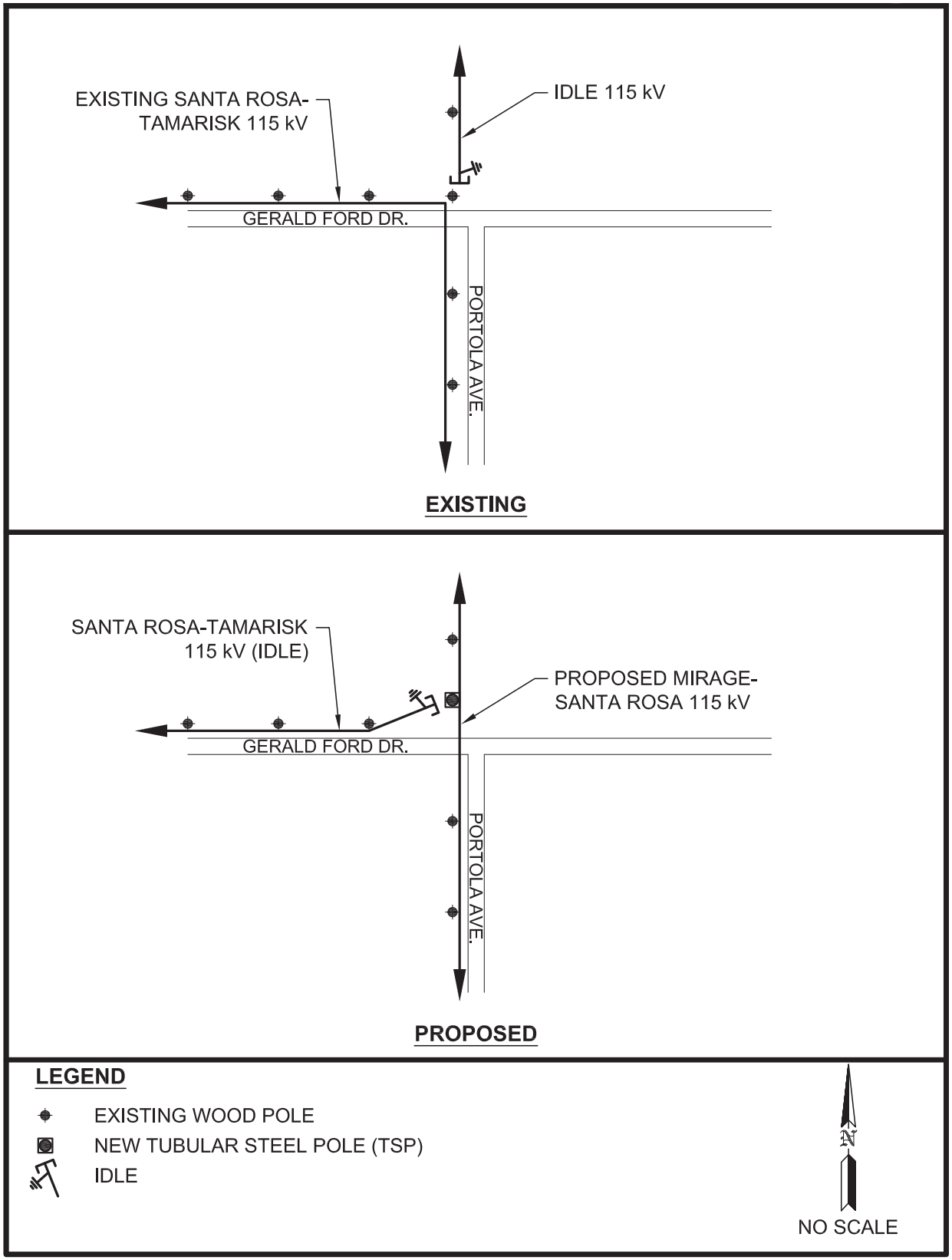
The reconfigured Mirage-Concho line would exit Mirage Substation on the new double-circuit LWS poles described above in the discussion of the proposed Mirage-Santa Rosa line. The reconfigured Mirage-Concho line would be strung on the east side of these double-circuit structures to Calle Francisco. From Calle Francisco, the line would continue south on existing double-circuit wood poles until Calle Desierto. From Calle Desierto, the reconfigured Mirage-Concho line would proceed south on new single-circuit wood poles to Calle Tosca, where it would angle to the west joining the Mirage-Santa Rosa line on the new double-circuit LWS poles described above.

From Calle Tosca, the reconfigured Mirage-Concho line would be strung on the east side of the new double-circuit LWS poles until it would reach the reconfigured TSP on the north side of I-10 described above. At this location the Mirage-Concho line would cross I-10 to an existing double-circuit TSP on the south side of I-10 and then continue to Concho Substation on existing single-circuit structures.

Reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV Line

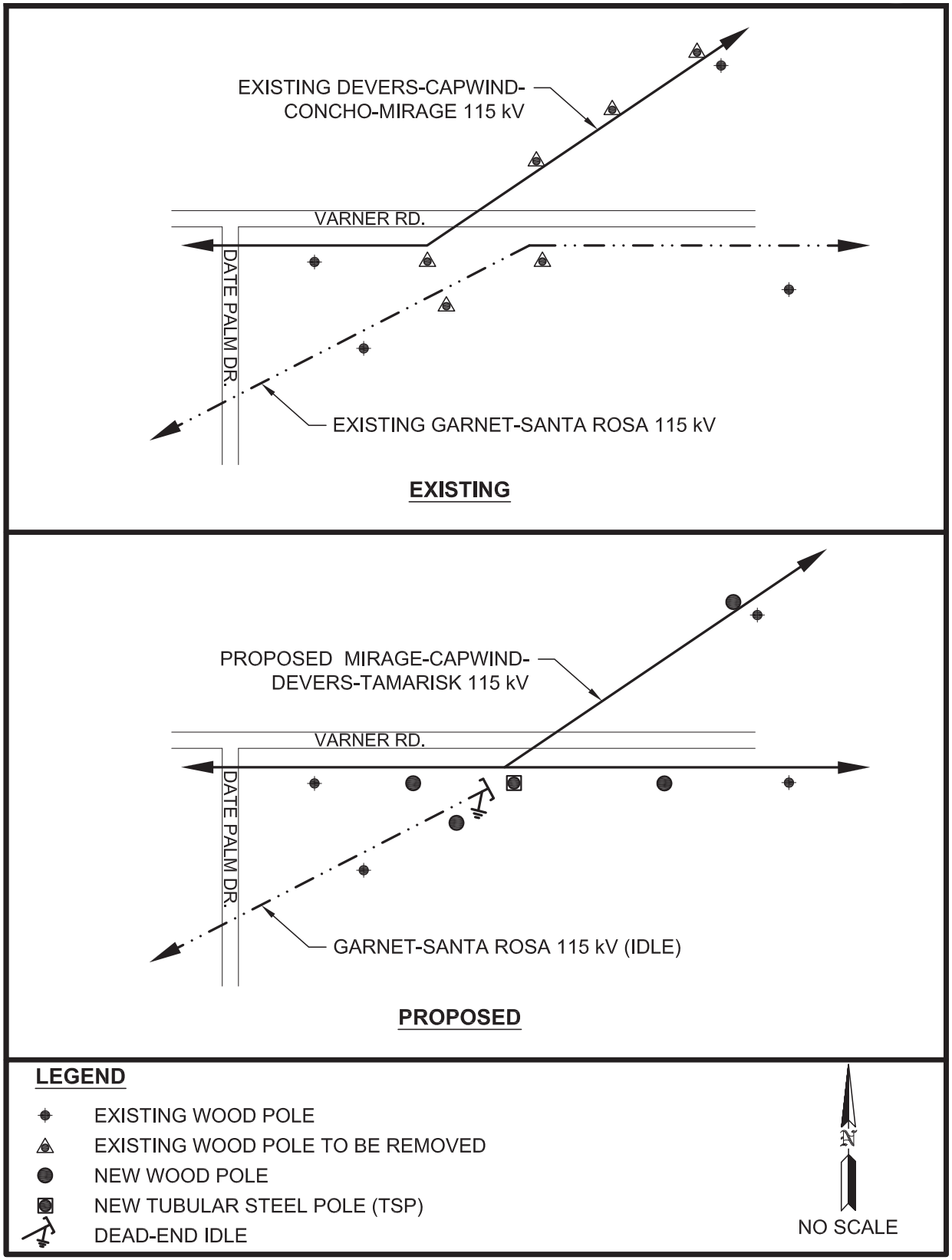
The reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission line would be created by connecting the Devers-Capwind-Mirage 115 kV subtransmission line described above, a portion of the existing Garnet-Santa Rosa 115 kV subtransmission line, a portion of the existing Mirage-Tamarisk 115 kV subtransmission line, and rearranging the connections of these existing 115 kV subtransmission lines at the intersection of Bob Hope Drive and Dinah Shore Drive (Figure 2-5) and the intersection of Date Palm Drive and Varner Road (Figure 2-7, *Existing and Proposed 115 kV Line Configurations at Varner Road and Date Palm Drive*).

The work at Bob Hope Drive and Dinah Shore Drive was described above as part of the Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line work. The work at Date Palm Drive and Varner Road would consist of removing six wood poles and installing one new TSP and four wood poles. The following work would be required for the proposed reconfiguration of the Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission line:



SOURCE: SCE, 2008a.

Figure 2-6
Existing and Proposed 115 kV Subtransmission Line Configuration at Portola Avenue and Gerald Ford Drive



SOURCE: SCE, 2008a.

Figure 2-7
Existing and Proposed 115 kV Subtransmission Line Configuration at Varner Road and Date Palm Drive

- Install a span of conductor between the existing north segment of the Garnet-Santa Rosa 115 kV subtransmission line and the existing west segment of the Santa Rosa-Tamarisk 115 kV subtransmission line at the northwest corner of Bob Hope Drive and Dinah Shore Drive.

- Split the existing Garnet-Santa Rosa 115 kV subtransmission line by dead-ending and grounding the Garnet leg to the new TSP installed east of Date Palm Drive and south of Varner Road. This portion of the Garnet-Santa Rosa line, between the intersection of Date Palm Drive and Varner Road and Garnet Substation, would become idle.

- Connect the existing Devers-Capwind-Mirage 115 kV subtransmission line to the existing Santa Rosa leg of the existing Garnet-Santa Rosa 115 kV subtransmission line at the new TSP installed east of Date Palm Drive and south of Varner Road to form the reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission line.

Summary of Proposed and Reconfigured 115 kV Lines for the Proposed Mirage 115 kV System

Once the work described above is completed, the existing Garnet-Santa Rosa 115 kV subtransmission line would no longer exist. The existing Mirage-Tamarisk 115 kV subtransmission line would become the Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line. The Devers-Capwind-Mirage 115 kV subtransmission line, created in 2008, would become the reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission line. The Mirage-Concho 115 kV subtransmission line, created in 2008, would continue to exist. Finally, the new Mirage-Santa Rosa 115 kV subtransmission line would be created.

Engineering Plan to Support Proposed Mirage 115 kV System

To accomplish the subtransmission line construction south of Mirage Substation, approximately 55 new poles would be installed. Approximately 37 poles would be direct-buried LWS poles, and approximately 11 would be wood poles. The LWS poles and the wood poles would be approximately 65 to 80 feet in length, of which approximately 10 feet would be buried. Illustrations of typical LWS poles are shown in Figure 2-3. The remaining seven poles would be bolted-based TSPs between 70 and 100 feet above ground, depending on their specific location. The TSPs would be bolted to steel-reinforced (rebar) concrete footings approximately six feet in diameter and at least 22 feet below the ground surface. The above-ground portion of the footing could be approximately two feet tall. Existing distribution lines attached to the existing wood poles would be transferred to the new LWS and TSP poles.

The Proposed Project would utilize 954 SAC conductor and one 221 kcmil ACSR ground conductor for the new Mirage-Santa Rosa 115 kV subtransmission line and for the reconfigured 115 kV line segments discussed above.

Construction Plan to Support Proposed Mirage 115 kV System

To create the new Mirage 115 kV Subtransmission System the following construction would be required:

- install approximately seven TSPs, approximately 37 double-circuit LWS poles, and approximately 11 wood poles;
- remove 29 wood poles;
- transfer approximately 1.5 miles of existing 653 kcmil ACSR to the new LWS and wood double-circuit poles; and
- install 1.5 miles of new 954 SAC and 221 kcmil ACSR to the new double-circuit poles.

Staging and Access

Primary material staging areas would be at Mirage and Santa Rosa substations due to their proximity to the work sites. Material and equipment to be staged in these substation yards would include poles, wire reels, insulators, hardware, heavy equipment, light trucks, construction trailers, and portable sanitation facilities. All material for the 115 kV subtransmission line work would be delivered by truck. Construction traffic would primarily use Ramon Road for Mirage Substation and Monterey Avenue for Santa Rosa Substation. Deliveries would be scheduled for off-peak traffic hours to the extent possible. Poles would be loaded out of either of the two substations and delivered to the specific locations for installation.

2.4.3 Design Features and Common Construction Methods for 115 kV Lines

The following information is common to all 115 kV subtransmission line work previously discussed in Sections 2.4.1 and 2.4.2.

Structures

New wood and LWS poles and TSPs would support the proposed subtransmission lines. Any existing underbuilt subtransmission lines, distribution lines, and communication lines would be transferred (where applicable) to the new poles installed for the Proposed Project. The existing poles would be removed.

Specific pole height and spacing would be determined upon final engineering and would be constructed in compliance with CPUC General Order (GO) 95 and other factors including, but not limited to:

- length of span between poles (average span of 200 feet; 100-foot minimum span and 500-foot maximum span);
- ground clearances pursuant to GO 95 and SCE construction standards;
- overhead clearances pursuant to GO 95 and SCE transmission construction standards;
- wind loading;
- distance between angle points; and
- number and voltage of electrical lines installed on the poles.

Typical pole (support structures) configurations used for the new Farrell-Garnett and Mirage-Santa Rosa 115 kV subtransmission lines are shown in Figure 2-3. Figure 2-8, *Tubular Steel Pole Configurations at the Intersection of Bob Hope Drive and Dinah Shore Drive*, illustrates the TSP configurations that would be used at Bob Hope Drive and Dinah Shore Drive.

Access Roads and Spur Roads

Construction and maintenance of the proposed subtransmission lines would require access to each of the planned pole locations. Public roads and ROWs or privately owned and maintained roads adjacent to the proposed subtransmission line alignments would be utilized whenever possible to provide construction and maintenance access.

Approximately 0.6 mile of new access roads and 0.1 mile of new spur roads, which provide direct access to pole sites from the access roads, would be constructed associated with the portion of the proposed Farrell-Garnet line that would require new ROW, north of the UPRR. In addition, approximately 3.75 miles of existing access and spur roads would be used and cleared of vegetation and blade-graded to remove potholes, ruts, and other surface irregularities. The existing access and spur roads would be re-compacted to provide a smooth and dense surface capable of supporting heavy equipment. Graded dirt roads would have a minimum drivable width of 14 feet. Trees and other vegetation would be removed or trimmed to obtain the minimum 14 feet of clear, drivable width. Construction would be performed by SCE construction crews and/or contractors under the supervision of SCE personnel.

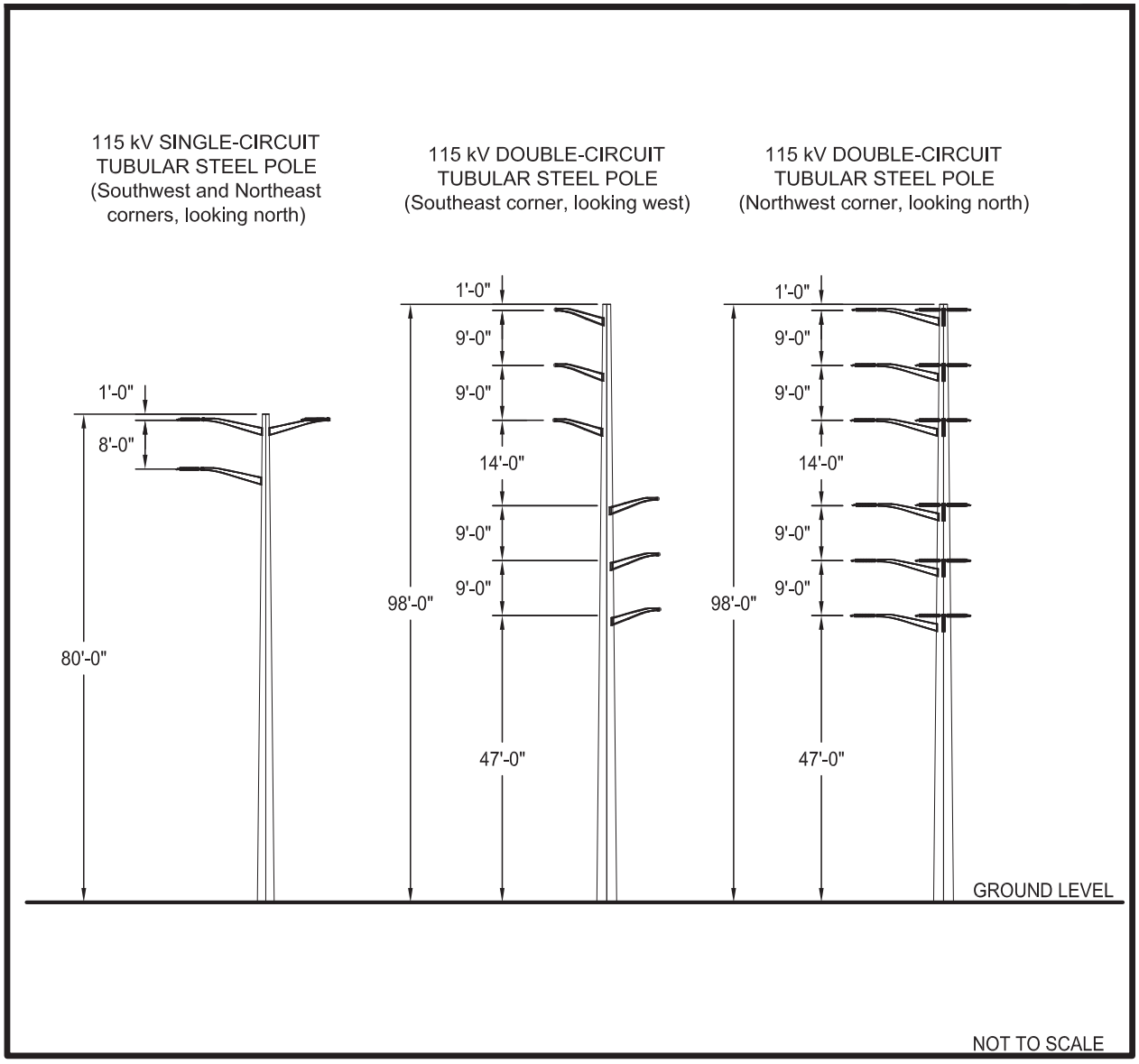
General Construction Plan

To accomplish the entire proposed subtransmission line construction, approximately 214 new poles would be installed. Approximately 182 of the new poles would be direct-buried LWS poles, 75 to 80 feet in length, approximately 10 feet of which would be buried. The remaining 32 would be wood poles, and bolted-based TSPs between 70 and 100 feet tall (above the concrete footing), depending on their specific location. The TSPs would be bolted to steel-reinforced (rebar) concrete footings approximately six feet in diameter and at least 22 feet below the ground surface. The above ground portion of the footing could add up to two additional feet to the total height of installed TSPs. These structures would be placed within existing 115 kV ROWs or existing franchise locations. Existing subtransmission and distribution lines and telecommunications cables attached to the existing wood poles would be transferred to the new TSPs.

Steel Pole Installation

Construction activities would begin with the survey of the 115 kV subtransmission line alignments. Survey crews would stake the steel pole locations, including reference points and centerline hubs. Survey crews would also survey limits of grading for steel pole excavations.

Any steel poles that would replace existing wood pole structures in existing ROW areas would be installed as close as possible to the existing poles and would require new excavations to set the poles. As a result, minimal new surface disturbance would be required at these locations. Depending on their location, the assembly and erection of some of the new TSPs may require that



Devers-Mirage 115 kV Subtransmission System Split Project . 207059

SOURCE: SCE, 2008a.

Figure 2-8
Tubular Steel Pole Configurations at the Intersection of Bob Hope Drive and Dinah Shore Drive

a new crane pad, approximately 50 feet by 50 feet (approximately 0.06 acre each), be prepared to allow an erection crane to set up 60 feet from the centerline of each TSP. The crane pad would be located transversely from each applicable TSP location.

Most pole sites would need minimal site preparation prior to pole installation. With the exception of the short segment of the Farrell-Garnet alignment, north of the UPRR, all of the proposed pole locations would be within existing SCE ROWs or franchise locations. Sites may require minor grading, leveling, or clearing to accommodate the new poles. No new access roads would be necessary. Pole sites would be cleared and graded at approximately the same time that the existing access roads would be graded and cleared of vegetation.

LWS poles would be installed in native soil in holes bored approximately 24 to 36 inches in diameter and 10 to 12 feet deep. LWS poles are normally installed using a line truck. Once the LWS poles have been set in place, bore spoils (material from holes drilled in the soil) would be used to backfill the hole. If the bore spoils are not suitable for backfill, imported clean fill material, such as clean fill dirt and/or pea gravel, would be used. Excess bore spoils would be distributed at each pole site, used as backfill for the holes left after removal of the wood poles, or removed from the pole sites.

The TSPs would be installed on top of cylindrical concrete footings approximately six to eight feet in diameter and approximately 20 to 25 feet deep. After holes for the footings have been bored, a steel rebar cage would be inserted into the hole, and then concrete would be poured into the hole to a level up to two feet above the ground surface. After the concrete has cured, the TSP would be bolted onto the footing. Excess bore spoils would be distributed at each pole site, used as backfill to fill holes left after removal of nearby wood poles, or removed from the pole sites.

Both LWS poles and TSPs consist of separate base and top sections for ease of construction. Steel pole installation would begin by transporting the poles from the staging area and laying the individual sections on the ground at each new pole location. While on the ground, the top section would be pre-configured with the necessary insulators and wire-stringing hardware. A line truck with a boom on it for LWS poles, or a crane for TSPs would be used to position each pole base section into previously augured holes for the LWS poles or on top of previously prepared foundations for the TSPs. When the base section is secured, the top section would be placed above the base section. The two sections may be spot-welded together for additional stability.

Removal of Existing Conductor and Wood Poles

Conductor

After the existing subtransmission and distribution lines have been transferred to the proposed subtransmission line poles, all remaining subtransmission and distribution line conductor that could not be reused by SCE would be removed and delivered to a facility for recycling.

Wood Poles

Following installation of the new steel poles, the existing wood poles would be completely removed (including the below-ground portion). The standard work practice to remove a wood pole is to attach a sling at the upper end of the pole, using boom or crane equipment, while using a hydraulic jack at the base of the pole to vertically lift the pole out of the ground until the pole can be physically lifted completely out of the ground without creating an over limit strain on the boom or crane. Excavation around the base of the wood pole would only be required in the event that the base of the pole becomes encased in hardened soil or man-made materials (e.g., asphalt or concrete), or where the pole has deteriorated to the point that it would splinter or break apart by the jacking and pulling operation described above.

Once the wood pole has been removed, the hole would be backfilled using imported fill in combination with fill that may be available as a result of excavation for the installation of the new steel poles. The backfill material would be thoroughly tamped and the filled-hole would be leveled to grade with no depression or mound allowable. Holes located in areas subject to pedestrian traffic would be filled level to the walking surface. The last two inches of fill would consist of a firmly packed temporary blacktop patch or equivalent material until permanent walkway (e.g., concrete sidewalks) repairs can be made.

Depending on their condition and original chemical treatment, the removed wood poles would be reused by SCE, returned to the manufacturer, or disposed of in a Class I hazardous waste landfill.

Conductor Pulling

Conductors would be installed on 115 kV polymer insulator assemblies attached to each crossarm in a horizontal configuration or suspension assemblies consisting of single polymer insulators attached to each crossarm in a vertical configuration. Overhead ground wires would be installed on the top of the steel poles. Distribution lines transferred to the new steel poles would typically be installed on standard wood crossarms with polymer insulators.

Conductor pulling includes all activities associated with the installation of conductors onto the LWS and wood poles and TSPs. These activities include installing three 115 kV 954 SAC conductors, one 221 kcmil ACSR ground conductor, ground wire, vibration dampeners, weights, and suspension and dead-end hardware assemblies for the entire length of the proposed subtransmission lines.

The standard wire-stringing plan includes a sequenced program of events starting with a determination of the most effective wire pull equipment set-up positions. The conductor-stringing plan may require altered hours of operation, implementation of special dust control measures, or use of guard structures in particular areas to prevent inadvertent stoppages of traveled roadways.

Conductor pulls are the length of any given continuous wire installation process between two selected points along the line. Conductor pulls are selected, where possible, based on availability of dead end structures at the ends of each pull (preferably a TSP), geometry of the line as affected by points of inflection, terrain, and suitability of stringing and splicing equipment setups. Pulling

locations are areas of surface disturbance where equipment would be set up for installing the conductors. The dimensions of the area needed for stringing setups varies depending upon the terrain. A typical stringing setup would be 100 feet by 200 feet, depending on placement of a tensioner with a reel stand truck or a puller but, due to space limitations, crews can work within a smaller area. Typically, the maximum conductor pulls and splices would occur every 6,000 feet.

Generally, pulling locations and equipment setup would be in direct line in the direction of the overhead conductors at a distance approximately three times the height of the pole. The exact locations of the pulling sites would be determined during construction.

Special equipment would be positioned at each end of the conductor pull. At one end, a puller would be positioned, and on the other end a tensioner and wire reel stand truck would be positioned. Once positioned, a lightweight sock line would be installed through stringing sheaves on each pole for the particular distance selected for the conductor pull. The sock line would then be used to pull in the conductor-pulling cable. The conductor-pulling cable would then be attached to the three conductors using a special swivel joint to prevent the wire from "blanketing" and allowing it to rotate freely, thus preventing complications from twisting as the conductors unwind off the reels. At the completion of each pull, the conductors would be secured to dead ends at each end, sagged to provide proper ground clearance, and secured to the insulators at each pole location. Stringing equipment from one end of the pull would then be rotated 180 degrees to face the new pull direction. The equipment from the other end of the pull would then be "leapfrogged" to its new pulling position, and the process would be repeated. A similar process would be employed for the ground wire. Conductor pulling would be in accordance with SCE specifications and similar to process methods detailed in Institute of Electrical and Electronics Engineers (IEEE) Standard 524-1992 (Guide to the Installation of Overhead Transmission Line Conductors).

Conductor Splicing

Two conductors to be spliced must first be grounded in accordance with SCE and IEEE standards. Then the two conductors would be pulled to have a slack in their tension via socks and anchoring. The two conductor ends would then be inserted into an aluminum sleeve that would be compressed by a hydraulic compressing tool. The tension would be put back onto the conductors and the splicing process would be completed.

Labor and Equipment

Construction would be performed by SCE construction crews or contractors under the supervision of SCE personnel. Anticipated construction personnel and equipment are summarized below in Table 2-1, *Construction Equipment and Workforce Estimates*. Construction equipment powered by an internal combustion engine would be equipped with exhaust and intake silencers in accordance with manufacturers' specifications, and would be maintained in good working order. Stationary construction equipment (e.g., portable power generators, compressors, etc.) would be located at the furthest distance possible from nearby residential units while meeting construction requirements and safe work practices.

TABLE 2-1
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES
(115 kV SUBTRANSMISSION LINES)

Number of Personnel	Primary Equipment Description	Estimated Horsepower	Probable Fuel Type	Primary Equipment Quantity	Estimated Activity Schedule (days)	Duration of Use (hours/day)
30	Survey					
	½-Ton Pick-up Truck 4X4	200	Gasoline	1	3	10
	Workers			3	3	10
	Roads					
	1-Ton Crew Cab 4X4	300	Gasoline	2	12	2
	Road Grader	350	Diesel	1	12	10
	Track Type Dozer	350	Diesel	2	12	2.6
	Water Trucks	350	Diesel	1	12	10
	Workers			4	12	10
	Pole Framing and Setting					
	¾-Ton Suburban	300	Gasoline	2	147	10
	5-Ton Framing Truck 4X4	350	Diesel	2	83	10
	30-Ton Line Truck	350	Diesel	2	83	10
	Digger Truck	500	Diesel	1	24	10
	Water Trucks	350	Diesel	1	83	10
	Backhoe	350	Diesel	2	147	10
	Bucket Truck	350	Diesel	2	147	10
	Truck Mounted Crane	350	Diesel	2	147	10
	30-Ton Crane	350	Diesel	1	14	10
	Cement Truck	500	Diesel	1	3	10
	Workers	350	Diesel	16	147	10
	Material Delivery					
	60-foot Flat Bed Pole Truck	350	Diesel	2	5	8
	Forklift	200	Diesel	1	5	8
	Workers			3	5	8
	Conductor Installation					
	Flat Bed Truck & Trailer (Wire Puller)	300	Gasoline	1	24	6
	Flat Bed Truck & Trailer (Wire Dolly)	300	Gasoline	1	24	6
	30-Ton Line Truck	300	Diesel	2	24	5
	¾-Ton Suburban	300	Gasoline	2	24	10
	Water Trucks	350	Diesel	1	24	10
	Bucket Truck	350	Diesel	2	24	6
	Truck Mounted Crane	350	Diesel	2	24	6
	Workers			16	16	10
	Restoration					
	1-Ton Crew Cab 4X4	300	Gasoline	2	40	8
	Water Trucks	350	Diesel	1	40	8
	Workers			8	40	8

Hazardous Materials and Waste Management

Construction of the 115 kV subtransmission lines would require limited use of hazardous materials, including fuel, lubricants, and cleaning solutions. All hazardous materials would be stored, handled, and used in accordance with applicable regulations, including the construction Storm Water Pollution Prevention Plan (SWPPP) for the proposed subtransmission line segments.

Construction of the 115 kV subtransmission lines would result in the generation of various waste materials, including wood, soil, vegetation, and sanitation waste (portable toilets), that would be disposed of per the below discussion.

Post-Construction Clean-Up and Restoration

All construction debris associated with construction of the 115 kV subtransmission lines would be placed in appropriate onsite containers and periodically disposed of in accordance with all applicable regulations. Temporary spur roads that might be needed for the proposed 115 kV subtransmission line split would be reseeded or scarified and allowed to return to natural conditions after the completion of work.

Construction Schedule

Construction of the proposed subtransmission lines would include surveying the subtransmission line alignments, engineering design based on these surveys, preconstruction biological protocol surveys, construction of the proposed subtransmission lines, and the transfer of existing lines to the new poles. Some of these activities may overlap. SCE anticipates that surveying activities would take three to six months to complete. Engineering design and physical construction activities, including grading, erecting new poles, installing conductors, transferring existing conductors, and removing unnecessary poles and conductors, would take approximately 12 months to complete.

It is anticipated that construction activities would start by the second quarter of 2010, following the CPUC's approval of SCE's application for a Permit to Construct (PTC), and would continue through mid-2011.

After the completion of final engineering and biological protocol environmental surveys, construction teams would grade all areas for construction. The proposed subtransmission lines would be energized once the Proposed Project has been constructed, including improvements at Devers, Mirage, Concho, Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk substations and the installation of the telecommunication facilities.

The proposed subtransmission line construction activities would occur between the hours of 8:00 a.m. and 6:30 p.m., Monday through Saturday. Construction activities would be prohibited on federal and State-recognized holidays.

Drainage Structures

Drainage structures would be installed to allow for construction traffic usage, as well as to prevent road damage and erosion due to uncontrolled water flow. Drainage structures may include wet crossings, water bars, overside drains, pipe culverts, and energy dissipaters. The specific need for and location of drainage systems or similar improvements would be identified during final engineering with a detailed topographic survey of the proposed subtransmission line corridors.

Ground Disturbance

Table 2-2, *Summary of Proposed 115 kV Line Ground Disturbing Activities*, provides a summary of the estimated amounts of temporary and permanent ground disturbance that would occur as a result of construction of the proposed 115 kV subtransmission lines.

TABLE 2-2
SUMMARY OF PROPOSED 115 KV LINE GROUND DISTURBING ACTIVITIES

	Farrell-Garnet 115 kV Subtransmission Line[a]	Mirage-Santa Rosa 115 kV Subtransmission Line[b]	Total
Length of proposed subtransmission line	5.8 miles	1.5 miles	7.3 miles
Number of existing structures removed	138	29	167
Area affected by structure removal	8.3 acres	1.8 acres	10.1 acres
Number of new structures installed	159	55	214
Area affected by new structure installation[c]	9.5 acres	3.3 acres	12.8 acres
Number of pulling/splicing sites	13	8	21
Area affected by pulling/splicing sites[c]	13 acres (temporary)	8 acres (temporary)	21 acres (temporary)
Number of laydown sites	1	1	2
Area affected by laydown sites[c]	1 acre (temporary)	1 acre (temporary)	2 acres (temporary)

NOTES:
a Includes all structures to be installed at Eisenhower Substation associated with the reconfigured Eisenhower-Tamarisk 115 kV line.
b Includes all pole replacements for line reconfigurations at Dinah Shore/Bob Hope, Date Palm/Varner, and Portola/Gerald Ford intersections.
c Estimates based on 0.06 acre for each structure (inclusive of temporary and permanent disturbance) and 1 acre of temporary disturbance for each pulling/splicing and laydown area.

All quantities are preliminary estimates and subject to modification based on final engineering

2.4.4 Operation, Inspection, and Maintenance

Normal operation of the proposed subtransmission lines would be controlled remotely through SCE control systems. SCE would inspect the subtransmission lines at least once per year by driving and/or flying the line alignments. Maintenance would occur as needed. Maintenance would include activities such as repairing conductors, replacing insulators, replacing poles, and access road and spur road maintenance.

2.5 Devers-Coachella Valley 220 kV Loop-In

2.5.1 Existing Configuration

Currently, four 220 kV transmission lines are located within the ROW that runs north/south from Mirage Substation to the Devers-Coachella Valley 220 kV transmission line corridor. The Mirage Substation is served by two of the existing lines; the Devers-Mirage and Mirage-Ramon 220 kV transmission lines. The third line, the Julian Hinds-Mirage 220 kV transmission line, is connected to Mirage Substation, but serves as an outgoing 220 kV source line to Metropolitan Water District (MWD)'s Julian Hinds Substation. The fourth line, the Coachella Valley-Ramon 220 kV line, connects directly to the Imperial Irrigation District (IID)'s Ramon Substation that is located on the east side of Mirage Substation. The Devers-Mirage, Julian Hinds-Mirage, and Coachella Valley-Ramon 220 kV transmission lines are located on LSTs within an approximately 0.8-mile long and 300-foot wide existing ROW, paralleling Vista de Oro on the east side, and starting at Mirage Substation, heading north to 30th Avenue, which is the approximate intersection of the existing northwest/southeast Devers-Coachella Valley 220 kV ROW. The Mirage-Ramon 220 kV line is located on three TSPs on the north side of the Mirage and Ramon substations, outside of the substation fence.

In addition to these four 220 kV transmission lines, the Devers-Coachella Valley 220 kV transmission line is located approximately 0.8 mile north of Mirage Substation. Figure 2-9, *Existing and Proposed Devers-Coachella Valley 220 kV Loop-In*, shows the existing alignment of the above-described 220 kV transmission lines and the associated LSTs and TSPs.

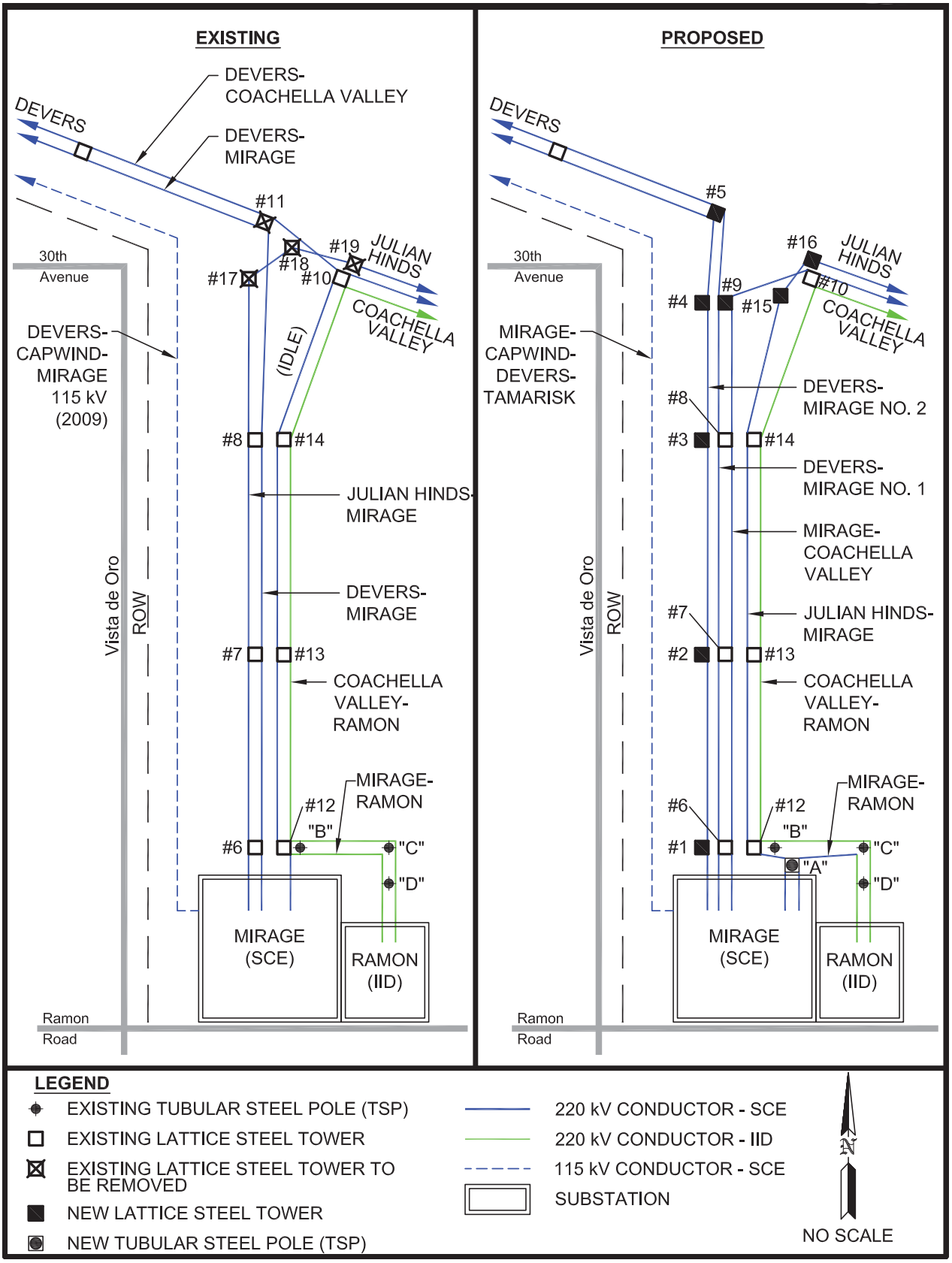
2.5.2 Proposed Configuration

To create the proposed Devers-Mirage No. 2 and the Mirage-Coachella Valley 220 kV transmission lines, the existing Devers-Coachella Valley 220 kV transmission line would be looped into Mirage Substation through the installation of new 220 kV LSTs and conductors, and line cutovers. The existing and proposed 220 kV transmission lines would require the use of existing double-circuit LSTs and the installation of new single-circuit and double-circuit LSTs and one double-circuit TSP (see Figure 2-10, *Typical Pole Configurations for the Devers-Coachella Valley 220 kV Loop-In* and Figure 2-11, *Existing and Proposed 220 kV Tower Configurations*).

Proposed TSP base diameters would be approximately 30 to 42 inches in diameter and would be approximately 12 to 18 inches at the top. These lines would require the use of new and existing 1033 kcmil aluminum conductors steel reinforced (ACSR) conductors, spanning approximately 0.8 mile from the Mirage Substation north to the Devers-Coachella Valley 220 kV transmission line ROW. These five 220 kV transmission lines are discussed in more detail below.

Reconfigured Devers-Mirage (No. 1) 220 kV Line

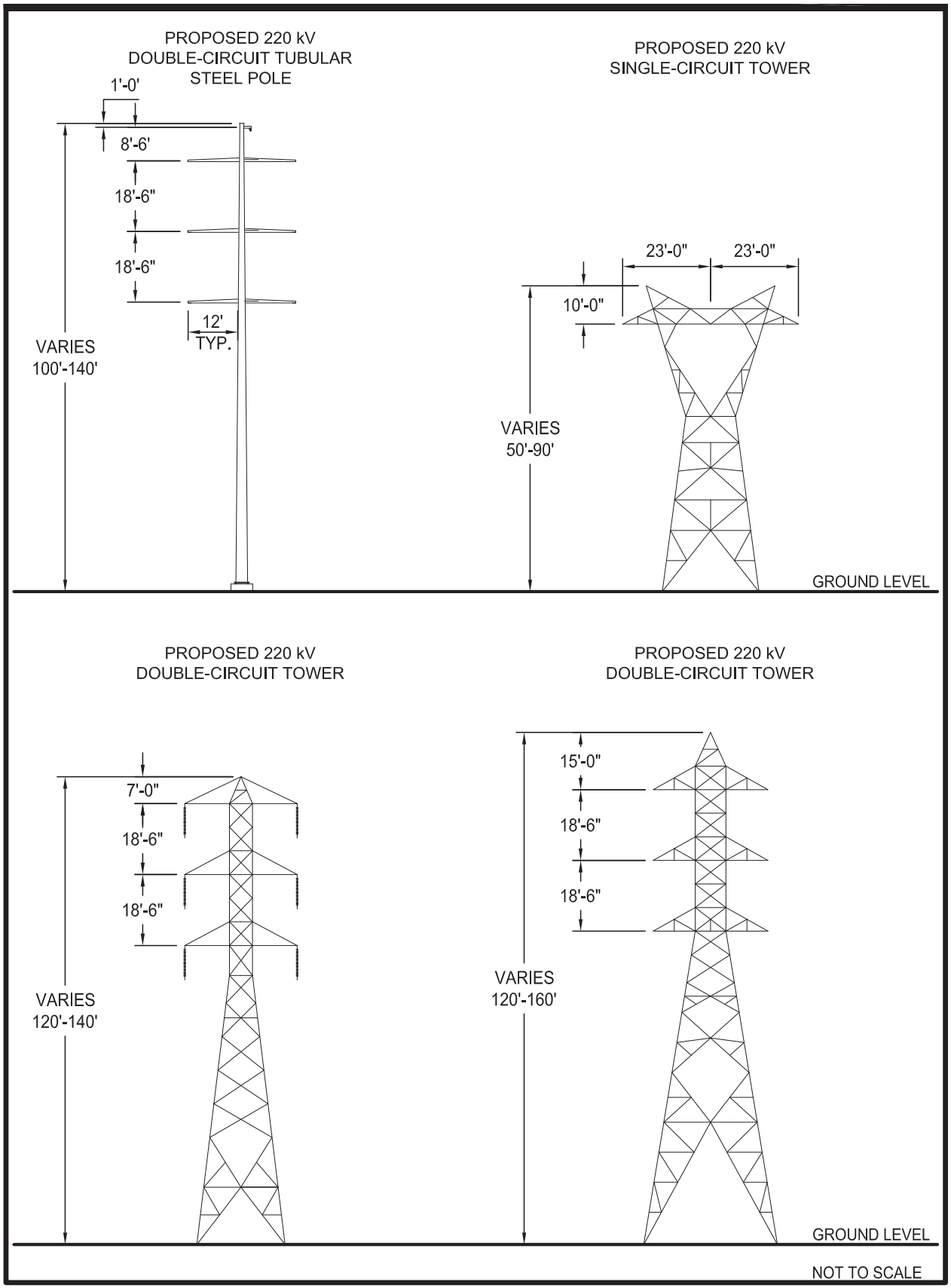
As shown in Figure 2-9, the existing Devers-Mirage 220 kV transmission line is located on the east side of the four existing LSTs (#6, #7, #8, and #11) that are located 190 feet east of the western property line of the north/south ROW into Mirage Substation. After new LST #9 is



SOURCE: SCE, 2008a.

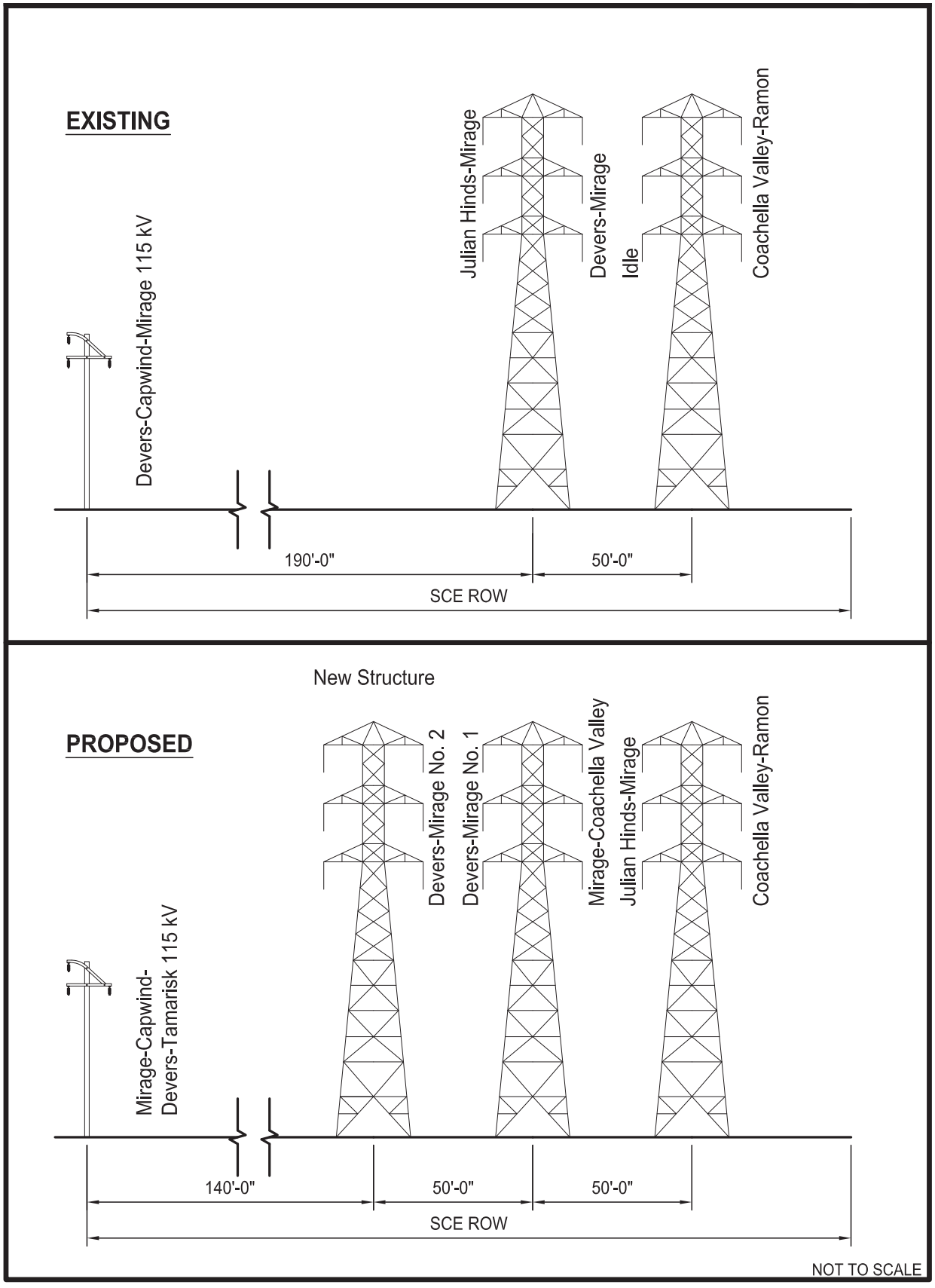
Figure 2-9

Existing and Proposed Devers-Coachella Valley 220 kV Loop-In



SOURCE: SCE, 2008a.

Figure 2-10
Pole and Tower Configurations for the
Devers-Coachella Valley 220 kV Loop-In



Devers-Mirage 115 kV Subtransmission System Split Project . 207059

SOURCE: SCE, 2008a.

Figure 2-11
Existing and Proposed 220 kV
Transmission Line Tower Configuration

constructed, the existing Julian Hinds-Mirage 220 kV transmission line would be reconfigured as the Devers-Mirage No. 1 line and reside on the west side of three existing LSTs (#6, #7, and #8) and two new LSTs (#5 and #9). Three new spans of conductor would be added north from Mirage Substation, including one from the 220 kV switchrack to existing LST #6, one from LST #8 to LST #9, and one span from LST #9 to LST #5. The Devers-Mirage No.1 would connect at LST #5 to the existing Devers-Coachella Valley 220 kV transmission line segment that travels west to Devers Substation. Existing LST #11 would be replaced with LST #5, and two existing conductor spans would be removed, including one span from LST #8 to LST #11 and one span from LST #8 to LST #17.

New Devers-Mirage No. 2 220 kV Line

As shown in Figure 2-9, the new Devers-Mirage No. 2 220 kV transmission line segment would be created by installing new double-circuit LSTs with new conductors for 0.8 mile, from Mirage Substation to the loop-in point. The new line segment would be comprised of five new double-circuit LSTs (#1, #2, #3, #4, and #5) placed approximately 140 feet east of the western ROW property line. The new conductor would be placed on the east side of the new LSTs, and would connect to the south side of the existing Devers-Mirage 220 kV transmission line at new LST #5. There would not be a transmission line on the western side of pole #s 1, 2, 3, and 4.

New Mirage-Coachella Valley 220 kV Line

The new Mirage-Coachella Valley 220 kV transmission line segment would be created by looping in the existing Devers-Coachella Valley 220 kV transmission line into Mirage Substation (see Figure 2-9). This new line would use four existing LSTs (#6, #7, #8, and #10) and one new LST (#9) located within the existing ROW, approximately 190 feet east of the western ROW property line. This new line would be located on the eastern side of the LSTs. The new line would connect to the Coachella Valley segment of the former Devers-Coachella Valley 220 kV line at existing LST #10. This line would use two existing spans of conductor (previously used by the Devers-Mirage 220 kV transmission line) between LST #6 and #8 and three new spans of conductor from the Mirage Substation 220 kV switchrack to existing LST #6.

Reconfigured Julian Hinds-Mirage 220 kV Line

As illustrated in Figure 2-9, the existing Julian Hinds-Mirage 220 kV transmission line resides on the west side of three existing LSTs (#6, #7, and #8) that are located approximately 190 feet east of the western ROW property line along with the existing Devers-Mirage 220 kV transmission line, which is located on the east side of these existing LSTs. Additionally, the existing Julian Hinds-Mirage 220 kV transmission line is strung from LST #8 to single-circuit LSTs #17, #18, and #19 before proceeding southeasterly within the existing Devers-Coachella Valley 220 kV transmission line ROW.

After the two new single-circuit LSTs (#15 and #16) are constructed, the idle 220 kV transmission line residing on four existing LSTs (#10, #12, #13, and #14), located approximately 240 feet east of the western ROW property line, would be reconfigured using new TSP “A,” three

existing double-circuit LSTs (#12, #13, and #14), and two new single-circuit LSTs (#15 and #16). Up to six new spans of conductor would be added from the Mirage Substation 220 kV switchrack traveling north to TSP "A" and then north on the LSTs, finally connecting at new LST #16, where it would connect to the existing Julian Hinds 220 kV line that travels east to Julian Hinds Substation. Existing single-circuit LSTs #17, #18, and #19 would be removed. Also, two existing conductor spans would be removed: one span from LST #17 to LST #18 and one span from LST #18 to LST #19.

Reconfigured Mirage-Ramon 220 kV Line

The existing Mirage-Ramon 220 kV line connects the SCE Mirage Substation to the IID Ramon Substation. In order to perform the realignment of the Julian Hinds 220 kV line to the western side of existing LSTs #12, #13, and #14 described above, the Mirage-Ramon 220 kV line would be reconfigured on new TSP "A" and existing TSPs "C" and "D." First, the existing Ramon-Mirage line would be reconfigured by removing two spans of conductor, including one span between LST #12 and existing TSP "B" and one span between TSP "B" and TSP "C" (see Figure 2-9). Next, the existing conductor between LST #12 and the Mirage Substation 220 kV switchrack would be replaced with new conductor that would connect the Mirage Substation 220 kV switchrack to new TSP "A." Finally, a new span of conductor would be installed between new TSP "A" and existing TSP "C."

2.5.3 Construction Plan

The Proposed Project at Mirage Substation would loop the existing Devers-Coachella Valley 220 kV transmission line into the Mirage Substation along existing ROW for approximately 0.8 mile on double-circuit LSTs forming the new Devers-Mirage No. 2 and Mirage-Coachella Valley 220 kV transmission lines in accordance with the following scope of work:

- Install approximately 7,240 feet of single-circuit 220 kV transmission line on six new double-circuit LSTs and two new single-circuit LSTs. The new LSTs would be strung with single 1033 kcmil ACSR conductors on new polymer insulators.

- Remove four LSTs and 3,770 feet of existing single-circuit 220 kV transmission line in or near the existing Devers-Coachella Valley 220 kV transmission line ROW north of the Mirage Substation.

- Install one new TSP and 1,000 feet of single-circuit 220 kV transmission line at Mirage Substation and rearrange the Julian Hinds 220 kV transmission line from the existing LSTs on the west side of the approximately 0.8-mile ROW to existing LSTs on the east side of the ROW.

- Install 1,540 feet of single-circuit 220 kV transmission line and remove 820 feet of single-circuit 220 kV transmission line between the 220 kV switchrack located inside Mirage Substation and the three LSTs and one TSP adjacent to the north fence of Mirage Substation.

Tower Site Preparation

Each tower site would be graded or cleared to provide a relatively level pad, free of any vegetation that could hinder tower construction. Tower site work areas approximately 200 feet by 200 feet would be graded so that no ponding or erosive water flow could occur that would cause damage to the tower footings. The graded pad would be compacted to at least 90 percent relative density and would be capable of supporting heavy vehicles.

Staging and Access

Material would be staged within the Mirage Substation during construction. All material for the proposed 220 kV transmission line loop-in work, including concrete, steel, and wire, would be delivered by truck. Construction traffic would use Ramon Road and would be scheduled for off-peak traffic hours to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work would be performed.

Existing Access and Spur Roads

Approximately 0.95 mile of existing access and spur roads would be cleared of vegetation, blade-graded to remove potholes, ruts, and other surface irregularities, and re-compacted to provide a smooth and dense riding surface capable of supporting heavy equipment. These roads would be maintained throughout the life of the Proposed Project. The graded roads would have a minimum drivable width of 14 feet, with a preferable shoulder width of two feet on each side. Drainage structures (e.g., wet crossings, water bars, over side drains, pipe culvers, and energy dissipaters) would be installed along spur and access roads to allow for construction equipment usage, as well as to prevent erosion from uncontrolled water flow. Slides, washouts, and other slope failures would be repaired and stabilized along the roads by installing retaining walls or other means necessary to prevent future failures. The type of mechanically stabilized earth-retaining structure to be used would be based on site-specific conditions.

New Access and Spur Roads

Where the three new LSTs are to be constructed within the existing access road, the access road would need to be realigned around each set of structures. Approximately 400 feet of new access road would be required for each of the three sets of LSTs. Also, approximately 120 feet of new spur road to new tower #15 would be required. New roads would be a minimum of 14 feet wide, with grades varying from flat to approximately 12 percent, and would include the drainage structures and erosion controls described above. Approximately 1,320 linear feet of total new access or spur road would be created within the existing Mirage 220 kV ROW.

Foundations

After a geotechnical investigation and final engineering of the LSTs have been completed, pier-type foundations would be installed using augured excavation techniques. The depth of the underground portion of the footing would depend on the findings of the geotechnical report. The above-ground portion of the footings would be approximately three feet high.

Tower Assembly

LSTs would be assembled at each individual LST location. Crews would erect the steel onto the footings and would bolt together the panel sections until the entire LST would be erected. Assembly and erection of the LSTs would require an erection crane to be set up approximately 60 feet from the centerline of each LST. The crane pad would be located transversely from each LST location.

Removal and Disposal of Wire, Structures, and Footings

SCE would remove four existing LSTs and associated hardware (e.g., insulators, vibration dampeners, suspension clamps, ground wire clamps, shackles, links, nuts, bolts, washers, cotters pins, insulator weights, and bond wires). Approximately one day would be required for the removal of each existing LST. The LSTs would be transported off-site with a 40-foot flatbed truck and a companion ¾-ton pick-up truck.

Removal of Existing Transmission Facilities

SCE proposes to remove the existing LSTs through the following activities:

- *Grading*: Grading activities near the existing LSTs may be required to ensure safe removal.
- *Removal Crane*: For each LST, a crane pad of approximately 50 feet by 50 feet would be constructed to allow a removal crane to be set up at a distance of 60 feet from the LSTs center line. The crane pad would be located transversely from the LST locations.
- *Earth Disturbance*: The existing LST footing would be removed by cutting the tower steel at the top of the footing. The concrete footing will be jack-hammered, as well as all the exposed steel cut away, and removed to a depth of two feet below existing grade. Holes would be filled and compressed to 90 percent compaction with native soil and the ground area smoothed to match surrounding topography. The removed concrete and steel material would be transported by dump truck used to remove other material (e.g., conductor removal) to an off-site location of a salvage contractor.
- *Steel Removal*: Crews would cut the steel into manageable lengths that can be loaded and transported away on a 40-foot flatbed truck for further dismantling at the off-site location of a salvage contractor.

SCE proposes to remove the existing conductor through the following activities:

- *Wire-Pulling Locations*: Wire-pulling locations that would be an estimated 200 feet by 200 feet (approximately 0.9 acre) in area would be sited at each of the three dead-end LSTs and points of inflection. Wire-pulling equipment would be placed intermittently along the utility corridor.
- *Breakaway Reels*: The old conductor wire would be wound onto “breakaway” reels during removal.
- *Pulling Cable*: A 3/8-inch pulling cable would replace the old conductor as it is pulled out, thereby allowing complete control of the conductor during its removal. The ⅜-inch line

would then be removed under controlled conditions to minimize ground disturbance, and all wire-pulling equipment would be removed.

- *Conductor Disposal*: The conductor would be transported to a material and equipment yard where it would be prepared for recycling.

Disposal of Existing Transmission Facilities

Recyclable items would be handled by construction crews that would process those materials into roll-off boxes. Recyclable items (e.g., conductor, steel, hardware) would be received, sorted, and baled at a commercial metal-recycling facility in Los Angeles, and then sold on the open market. Items to be recycled include 100 percent of the steel from LSTs (e.g., towers, nuts, bolts, and washers), 100 percent of the conductor wire (e.g., 1033 kcmil ACSR, 605 kcmil ACSR), and 100 percent of the hardware (e.g., shackles, clevises, yoke plates, links, and/or other connectors used to support conductor). Sanitation waste (i.e., human generated waste) would be disposed of according to sanitation waste management practices.

All waste materials that would not be recycled would be categorized by SCE in order to guarantee proper final disposal. Examples of disposable wastes include wood from cribbing and packing materials, soil and vegetative matter from excavations and land-clearing activity, and miscellaneous refuse generated during construction.

Conductor Pulling

Conductor pulling includes all activities associated with the installation of conductors onto the LSTs. This activity includes the installation of overhead ground wire (OHGW) and primary conductor, vibration dampeners, weights, spacers, and dead-end hardware assemblies. Two cable pulls would be performed, one for each circuit, between the switchrack and the LSTs intercepting the 220 kV line. A 200-foot by 200-foot temporary staging area would be required at each pulling location.

Conductor pulling would be conducted in accordance with SCE specifications and similar to process methods detailed in the IEEE Standard 524-1992 (Guide to the Installation of Overhead Transmission Line Conductors). Conductors would be pulled using individual reels, with ropes strung along the LSTs. Conductors would be pulled from each pull location using take-up reels. A standard wire-stringing plan would include a sequenced program of events, beginning with determination of wire pulls and wire-pulling equipment setup positions. Advanced planning would determine circuit outages, pulling times, and safety protocols required to ensure that safe and quick installation of wire is accomplished.

Labor and Equipment

Construction would be performed by SCE construction crews and/or by contractors under the supervision of SCE personnel. Anticipated required construction personnel and equipment are summarized in Table 2-3, *Construction Equipment and Workforce Estimates by Activity (Devers-Coachella Valley 220 kV Loop-In)*.

TABLE 2-3
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
(DEVERS-COACHELLA VALLEY 220 KV LOOP-IN)

Primary Equipment Description	Estimated Horsepower	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Activity Schedule (Days)	Duration of Use (Hours/Day)	Estimated Production
Survey				3			1.2 Miles
1/2-Ton Pick-Up Truck, 4X4	200	Gas	2		3	8	0.5 Mile per Day
Marshalling Yards				4			
1-Ton Crew Cab 4X4	300	Diesel	1		85 Days	2	Duration of Project
30-Ton Crane Truck	300	Diesel	1			2	
10,000-Pound Rough-Terrain Fork Lift	200	Diesel	2			5	
40-Foot Flat Bed Trailers	N/A	N/A	3			2	
Truck, Semi, Tractor	350	Diesel	1			1	
Office Trailer	N/A	N/A	1			N/A	
Storage Containers	N/A	N/A	3			N/A	
Roads and Landing Work				3			1.2 Miles
1-Ton Crew Cab 4X4	300	Diesel	1		3	5	0.5 Mile per Day
Road Grader	350	Diesel	1		3	6	
Track Type Dozer	350	Diesel	1		3	6	
Drum Type Compactor	250	Diesel	1		3	6	
Water Trucks	350	Diesel	3		3	10	
Lowboy Truck/Trailer	500	Diesel	1		3	4	
Excavator	300	Diesel	1		3	6	
Front End Loader	350	Diesel	1		3	6	
Install Foundations				5			8 Towers 1 TSP
1-Ton Crew Cab Flat Bed, 4X4	300	Diesel	4		17	6	1 Structure per 2 Days
30-Ton Crane Truck	300	Diesel	2		17	5	
Front End Loader	200	Diesel	1		17	5	
Diggers	500	Diesel	2		17	8	
4,000-Gallon Water Trucks	350	Diesel	2		17	5	
10-Yard^3 Concrete Mixer Trucks	425	Diesel	6		17	5	

TABLE 2-3 (Continued)
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
(DEVERS-COACHELLA VALLEY 220 KV LOOP-IN)

Primary Equipment Description	Estimated Horsepower	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Activity Schedule (Days)	Duration of Use (Hours/Day)	Estimated Production
Tower Legs, Haul & Erect				6			8 Towers 1 TSP
1-Ton Crew Cab Flat Bed, 4X4	300	Diesel	1		4	6	2 Structures per Day
30-Ton Crane Truck	300	Diesel	1		4	8	
10,000-pound Rough-Terrain Fork Lift	200	Diesel	1		4	6	
40-Foot Flat Bed Truck & Trailer	350	Diesel	1		4	5	
10,000-Pound Rough-Terrain Fork Lift	200	Diesel	1		5	8	
40-Foot Flat Bed Truck & Trailer	350	Diesel	2		5	10	
Tower Assembly				10			8 Towers
80-Ton Rough Terrain Cranes	400	Diesel	2		8	8	1 Tower per Day
30-Ton Crane Truck	300	Diesel	2		8	8	
10,000-Pound Rough Terrain Fork Lift	200	Diesel	2		8	5	
3/4-Ton Pick-Up Truck, 4X4	300	Diesel	3		8	10	
1-Ton Crew Cab Flat Bed, 4X4	300	Diesel	4		8	5	
Compressor Truck	350	Diesel	2		8	5	
Tower & TSP Erection				10			8 Towers, 1 TSP
3/4-Ton Pick-Up Truck, 4X4	300	Diesel	1		8	5	1 Tower and 1 TSP per Day
1-Ton Crew Cab Flat Bed, 4X4	300	Diesel	2		8	5	
Compressor Truck	350	Diesel	1		8	5	
180-Ton Rough-Terrain Crane	500	Diesel	1		8	6	
Tower Removal				3			4 Towers
3/4-Ton Pick-Up Truck, 4X4	300	Diesel	1		4	8	1 Tower per Day
40-Foot Flat Bed Truck	350	Diesel	1		4	8	

TABLE 2-3 (Continued)
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES BY ACTIVITY
(DEVERS-COACHELLA VALLEY 220 KV LOOP-IN)

Primary Equipment Description	Estimated Horsepower	Probable Fuel Type	Primary Equipment Quantity	Estimated Workforce	Estimated Activity Schedule (Days)	Duration of Use (Hours/Day)	Estimated Production
Conductor Installation				12			1.2 Miles
1-Ton Crew Cab Flat Bed, 4X4	300	Diesel	3		10	8	0.12 Mile per Day
Wire Trucks & Trailers	350	Diesel	2		6	2	
Dump Truck (Trash)	350	Diesel	1		10	2	
¾-Ton Pick-Up Truck, 4X4	300	Diesel	1		10	10	
30-Ton Manitex	350	Diesel	2		10	6	
22-Ton Manitex	350	Diesel	1		10	8	
Sleeving Rigs	350	Diesel	2		10	2	
Log Truck & Trailer	500	Diesel	1		10	2	
20,000-Pound Rough-Terrain Fork Lift	350	Diesel	1		10	2	
580 Case Backhoe	120	Diesel	1		6	2	
Spacing Carts	10	Diesel	4		6	4	
Static Truck	350	Diesel	1		6	2	
Static Tensioner	0	Diesel	1		6	2	
3-Drum Strawline Pullers	300	Diesel	2		6	4	
60lk Puller	525	Diesel	1		6	3	
Sag Cat with 2 Winches	350	Diesel	1		6	2	
D8 Cats	300	Diesel	4		6	1	
Hughes 500 E Helicopter	650	Jet A	1		3	4	
Fuel, Helicopter Support Truck	300	Diesel	1		3	2	
Low Boy Truck & Trailer	500	Diesel	1		10	2	
Restoration				5			1/2 Mile
1-Ton Crew Cab 4X4	300	Diesel	1		4	5	1/2 Mile per Day
Road Grader	350	Diesel	1		4	6	
Track Type Dozer	350	Diesel	1		4	6	
Drum Type Compactor	250	Diesel	1		4	6	
Water Trucks	350	Diesel	3		4	10	
Lowboy Truck/ Trailer	500	Diesel	1		4	4	
Front End Loader	350	Diesel	1		4	6	
Excavator	300	Diesel	1		4	6	

SOURCE: SCE, 2008a.

Ground Disturbance

Table 2-4, *Summary of Proposed Devers-Coachella Valley 220 kV Loop-In Ground Disturbing Activities*, provides a summary of the amounts of temporary and permanent ground disturbance that would occur as a result of construction of the proposed Devers-Coachella Valley 220 kV Loop-In.

TABLE 2-4
SUMMARY OF PROPOSED DEVERS-COACHELLA VALLEY 220 KV LOOP-IN GROUND-DISTURBING ACTIVITIES

Length of proposed transmission line	0.8 mile (approximately)
Number of existing structures removed	4
Area affected by structure removal	3.7 acres (temporary)
Number of new structures installed	9
Area affected by new structure installation	8.2 acres (permanent)
Number of pulling/splicing sites	5
Area affected by pulling/splicing sites	4.5 acres (temporary)
Number of laydown sites	4
Area affected by laydown sites	0.9 acre (temporary)
Area affected by widening access road and spur roads	0.6 acre (1,320 linear feet) (permanent)

NOTES: All quantities are preliminary estimates and subject to modification based on final engineering. Disturbance for the pulling sites would coincide with the disturbance of the installation of the new structures.

Hazardous Material Usage and Waste Generation

Construction of the proposed 220 kV transmission line loop-in would require limited use of hazardous materials, including fuel, lubricants, and cleaning solutions. All hazardous materials would be stored, handled, and used in accordance with applicable regulations, and the Hazardous Materials and Waste Handling Management plan (see Applicant Proposed Measure (APM) HAZ-1 in Section 4.7.3). Construction of the proposed 220 kV transmission line loop-in would generate waste in the form of wood, soil, vegetation, and sanitation waste.

Post-Construction Clean-Up and Restoration

All debris associated with construction of the proposed 220 kV transmission line loop-in would be placed in appropriate onsite containers and periodically disposed of in accordance with all applicable regulations. After construction activities are completed, the area of the proposed 220 kV transmission line loop-in would be scarified and allowed to return to natural conditions.

Construction Schedule

It is anticipated that construction of the proposed 220 kV transmission line loop-in would begin during approximately the second quarter of 2010 and would conclude by mid-2011.

2.6 Substations

2.6.1 Devers Substation

Engineering Plan

Devers Substation is a staffed, 500/220/115 kV substation located in the unincorporated area of Riverside County, north of the City of Palm Springs. The proposed improvements at Devers Substation include the replacement of two 115 kV circuit breakers in existing Position No. 7 for the new Devers-Eisenhower-Thornhill 115 kV subtransmission line and replacement of two 115 kV circuit breakers in existing Position No. 4 for the new Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission line. Improvements at the substation would also include installation of new line-protection relays.

Equipment

The proposed improvements to the Devers Substation would include installation of the components listed below:

- Four 115 kV, 1,200 Amp, 40 kiloannum (kA) duty, circuit breakers
- Fifteen 115 kV lightning arresters

Concrete foundations and steel supports would also be required. Construction would result in approximately 978 square feet of ground disturbance within the fenced substation area. Relays would be upgraded for the reconfigured Devers-Eisenhower-Thornhill and Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission lines. Additional site lighting would not be required as part of the proposed substation improvement.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Devers Substation as a result of this work.

Staging and Access

Material would be staged within the substation wall/fence during construction. All material, including circuit breakers, would be delivered by truck. Construction traffic would use Indian Wells, to Dillon Road, to Diablo Road and would be scheduled for off-peak traffic hours, to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work would be conducted.

Construction Schedule

Construction within the Devers Substation would take a total of approximately 60 days to complete, commencing approximately in the second quarter of 2010 and concluding in mid-2011, including testing and energizing of the substation. The planned operating date is mid-2011.

2.6.2 Mirage Substation

Engineering Plan

Mirage Substation is an unstaffed, 220/115 kV substation located in unincorporated Riverside County in the general vicinity of the community of Thousand Palms. The proposed improvements at Mirage Substation include the installation of one 280 MVA, 220/115 kV transformer bank, one new 220 kV bank position, one new 115 kV bank position, and one new 220 kV breaker-and-a-half configuration for two new 220 kV line positions, and the relocation of the existing Mirage-Ramon 220 kV transmission line, the existing Julian Hinds-Mirage 220 kV transmission line, and the existing Devers-Mirage 220 kV transmission line. Other work at the substation would include looping of the Devers-Coachella Valley 220 kV transmission line into the Mirage 220 kV switchrack, installation of the new Mirage-Santa Rosa 115 kV subtransmission line, relocation of existing Mirage-Concho 115 kV subtransmission line, and installation of new line protection relays.

Equipment

The proposed improvements to the Mirage Substation would include installation of the components listed below.

Major Equipment

- One 280 MVA 220/115 kV transformer bank;
- Five 220 kV, 3,000 amp, 50 kA duty, circuit breakers;
- Ten 220 kV, 3,000 amp, center-side-break disconnect switches;
- Fifteen 220 kV station post insulators;
- Six 220 kV metering potential transformers;
- Two 115 kV, 3,000 amp, 40 kA duty circuit breakers;
- Three 115 kV, 2,000 amp, 40 kA duty circuit breakers;
- Four 115 kV, 3,000 amp, center-side-break disconnect switches;
- Six 115 kV, 2,000 amp, center-side-break disconnect switches;
- Nine 115 kV potential transformers; and
- Twenty-seven 115 kV post insulators.

Switchrack Configurations

- One new 220 kV transformer bank position No. 6S designed with a double-breaker configuration;
- One new 220 kV line position No. 5 designed with a breaker-and-a-half configuration for relocation of the existing Julian Hinds-Mirage 220 kV transmission line (Pos. No. 5N) and relocation of the existing Mirage-Ramon 220 kV transmission line (Pos. No. 5S);

- Existing 220 kV transmission line Position No. 3 would be upgraded and remain a breaker-and-a-half configuration for the installation of the new Devers-Mirage No. 2 220 kV transmission line (Pos. No. 3N) and the installation of the new Mirage-Coachella Valley 220 kV transmission line (Pos. No. 3S);
- One new 115 kV transformer bank position (No. 6N) designed with a double-breaker configuration;
- One new 115 kV line position (No. 7N) designed with a double-breaker configuration; and
- Convert existing 115 kV line position (No. 4) from a double-breaker configuration to a breaker-and-a-half configuration.

Concrete foundations and steel transformer racks, switch supports, and dead-end racks would also be required. Transformer and dead-end racks would be various sizes, up to approximately 60 feet high. Construction would result in approximately 43,226 square feet of ground disturbance within the fenced substation area. Additional site lighting would not be required as part of the proposed substation improvement.

Construction Plan

All construction would take place inside the fenced perimeter of Mirage Substation. New relays would be provided for the installation of the new 280 MVA 220/115 kV transformer bank. Relays would be upgraded as needed for the new 115 kV subtransmission line rearrangements.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Mirage Substation as a result of this work.

Staging and Access

Material would be staged within the substation wall/fence during construction in an existing staging area (230 feet x 230 feet) in the southeast corner of Mirage Substation. All material would be delivered by truck. Construction traffic would use Ramon Road and would be scheduled for off-peak traffic hours to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work is being prepared. The transformer would be delivered by heavy transport vehicles and off-loaded on site by large cranes with support trucks. A traffic control service would be used for transformer delivery.

Construction Schedule

Construction within Mirage Substation would take approximately eight months, commencing in the second quarter of 2010 and concluding by mid-2011, including testing and energizing the substation.

2.6.3 Concho Substation

Engineering Plan

Concho Substation is an unstaffed, 115/12 kV low-profile substation located in Palm Desert. The proposed improvements at Concho Substation include protection relay replacements for the existing Concho-Indian Wells-Santa Rosa 115 kV subtransmission line and the existing Concho-Indian Wells 115 kV subtransmission line.

Equipment

The proposed substation improvements include only the installation of new line-protection relays. No ground disturbance would occur and additional site lighting would not be required as part of the proposed substation improvement.

Construction Plan

Relays would be upgraded on the existing Concho-Indian Wells-Santa Rosa 115 kV subtransmission line and the existing Concho-Indian Wells 115 kV subtransmission line.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Concho Substation as a result of this work.

Staging and Access

Materials would be staged within the substation wall/fence during construction. All material would be delivered by truck. Construction traffic would use Cook Avenue and Country Club Drive and would be scheduled for off-peak traffic hours, to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work is being prepared. A traffic-control service would be used if needed.

Construction Schedule

Construction within Concho Substation would take a total of approximately 35 days, commencing approximately in the second quarter of 2010 and concluding in the second quarter of 2011, including testing and energizing the substation. The planned operating date is the mid-2011.

2.6.4 Indian Wells Substation

Engineering Plan

Indian Wells Substation is an unstaffed, 115/12 kV low-profile substation located in the City of Indian Wells. The proposed improvements at Indian Wells Substation include the protection line

relay replacements for existing Concho-Indian Wells-Santa Rosa 115kV subtransmission line and the existing Concho-Indian Wells 115kV subtransmission line.

Equipment

The proposed substation improvements include only the installation of new line protection relays. No ground disturbance would occur and additional site lighting would not be required as part of the proposed substation improvement.

Construction Plan

Relays would be upgraded on the existing Concho-Indian Wells-Santa Rosa 115 kV subtransmission line, the existing Concho-Indian Wells 115 kV subtransmission line, and the existing 115 kV bus tie position.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Indian Wells Substation as a result of this work.

Staging Access

Materials would be staged within the substation wall/fence during construction. All material would be delivered by truck. Construction traffic would use Monterey Avenue and Fred Waring Drive and would be scheduled for off-peak traffic hours, to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work is being prepared. A traffic-control service would be used if needed.

Construction Schedule

Construction within Indian Wells Substation would take a total of approximately 50 days, commencing approximately in the second quarter of 2010 and concluding by mid-2011, including testing and energizing the substation.

2.6.5 Santa Rosa Substation

Engineering Plan

Santa Rosa Substation is an unstaffed, 115/33/12 kV low-profile substation located in the City of Rancho Mirage. The proposed improvements at Santa Rosa Substation include the conversion of the existing Santa Rosa-Garnet 115 kV subtransmission line to the new Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line; conversion of the existing Santa Rosa-Tamarisk 115 kV subtransmission line to the new Mirage-Santa Rosa 115 kV subtransmission line; installation of new line-protection relays for new lines; and line protection relay replacement of the existing Concho-Indian Wells-Santa Rosa 115 kV subtransmission line.

Equipment

The proposed improvements include connecting the Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line and the new Mirage-Santa Rosa 115 kV subtransmission line and installation of new line protection relays. No ground disturbance would occur and additional site lighting would not be required as part of the proposed substation improvement.

Construction Plan

New relays would be provided for installation of the new Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line, and the new Mirage-Santa Rosa 115 kV subtransmission line and relays would be upgraded for the new 115 kV subtransmission line rearrangements.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Santa Rosa Substation as a result of this work.

Staging Access

Materials would be staged within the substation wall/fence during construction. All material would be delivered by truck. Construction traffic would use Monterey Avenue and would be scheduled for off-peak traffic hours, to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work is being prepared. A traffic-control service would be used if needed.

Construction Schedule

Construction within Santa Rosa Substation would take a total of approximately 40 days, commencing approximately in the second quarter of 2010 and concluding by mid-2011, including testing and energizing the substation.

2.6.6 Eisenhower Substation

Engineering Plan

Eisenhower Substation is an unstaffed, 115/33/12 kV low-profile substation located in Palm Springs. The proposed improvements at Eisenhower Substation include the relocation of the existing Eisenhower-Farrell 115 kV subtransmission line from Position No. 3 to existing Position No. 2, conversion of the existing Eisenhower-Devers 115 kV subtransmission line to the reconfigured Eisenhower-Devers-Thornhill 115 kV subtransmission line into existing Position No. 2, installation of the reconfigured Eisenhower-Tamarisk 115 kV subtransmission line into existing Position No. 6, replacement of three existing 115 kV circuit breakers in existing Position Nos. 2, 3, and 6, and installation of new line protection relays.

Equipment

The proposed improvements to the Eisenhower Substation would include the installation of the following equipment components:

- Three 115 kV, 1,200 Amp, 40 kA duty circuit breakers;
- One 115 kV, 1,200 Amp, center-side-break disconnect switch;
- One 115 kV potential transformer; and
- Fifteen 115 kV lightning arresters.

In addition, one existing 115 kV bus tie position would be converted to a 115 kV line position. Concrete foundations and steel transformer, lightning arrester, and switch supports would also be required. The support structures would be various sizes, up to approximately eight feet high. Construction would result in approximately 1,100 square feet of ground disturbance within the fenced substation area. Additional site lighting would not be required as part of the proposed substation improvement.

Construction Plan

New relays would be provided for installation of the new Eisenhower-Tamarisk 115 kV subtransmission line and the new Devers-Eisenhower-Thornhill 115 kV subtransmission line. Relays would be upgraded for the new 115 kV subtransmission line rearrangements.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Eisenhower Substation as a result of this work.

Staging and Access

Material would be staged within the substation wall/fence during construction. All material would be delivered by truck. Construction traffic would use Date Palm Drive, to East Ramon Road, to South Gene Autry Trail, to East Mesquite Avenue and would be scheduled for off-peak traffic hours, to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work is being prepared. A traffic-control service would be used if needed.

Construction Schedule

Construction within Eisenhower Substation would take a total of approximately 65 days, commencing approximately in the second quarter of 2010 and concluding by mid-2011, including testing and energizing the substation.

2.6.7 Farrell Substation

Engineering Plan

Farrell Substation is an unstaffed, 115/12 kV low-profile substation located in Palm Springs. The proposed improvements at Farrell Substation include the addition of one 115 kV Position No. 3, relocation of the existing Farrell-Eisenhower 115 kV subtransmission line from Position No. 6 to new Position No. 3, relocation of the existing Farrell-Devers-Windland 115 kV subtransmission line from Position No. 7 to Position No. 6, installation of the new Farrell-Garnet 115 kV subtransmission line in existing Position No. 7, and installation of new line protection relays.

Equipment

The proposed improvements to the Farrell Substation would include the components listed below:

- One 115 kV, 1,200 amp, 40 kA duty circuit breaker;
- Three 115 kV, 1,200 amp, center-side-break disconnect switches;
- One 115 kV potential transformer;
- Three 115 kV lightning arresters; and
- One 115 kV line position designed with a single-breaker configuration.

Concrete foundations, steel lightning arrester and switch supports, and a dead-end rack would also be required. The support structures would be approximately eight feet high, and the dead-end rack would be 27 feet high. Construction would result in approximately 2,250 square feet of ground disturbance within the fenced substation area. Additional site lighting would not be required as part of the proposed substation improvement.

Construction Plan

All construction would take place inside the fenced perimeter of Farrell Substation, except for the installation of the driveway at the northeast corner of the substation adjacent to Executive Drive. New relays would be provided for installation of the new Farrell-Garnet 115 kV subtransmission line. Relays would be upgraded for the 115 kV subtransmission line rearrangements.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Farrell Substation as a result of this work.

Staging and Access

A new 16-foot-wide by 30-foot-long paved substation access driveway with a 16-foot-wide double-drive access gate would be located along the Executive Drive frontage and centered approximately 50 feet from the northeastern SCE property corner. This new gate would provide access to the northern portion of the substation during construction of the new 115 kV line and

during future construction activities at the substation. It would be a secondary access and would not be used for normal substation operation and maintenance activities.

Construction of the new access would include removal of approximately 20 feet of the existing substation perimeter fence; minor grading to match the existing Executive Drive curb and gutter with the substation interior finished grade; construction of a new concrete driveway approach per the City of Palm Springs standards; paving of approximately 30 feet of an asphalt concrete driveway; and the installation of a new 16-foot-wide by 8-foot-high double-drive chain-link gate with barbed wire, including new gateposts with concrete footings to match the existing fence.

Approximately 10 cubic yards of soil would be excavated, redistributed, and compacted to form the new two percent slope driveway. Paving the new driveway would require approximately four cubic yards of asphalt concrete and four cubic yards of Class II aggregate road base. The new concrete driveway approach would require approximately 1.5 cubic yards of cement concrete. Each gatepost footing would require approximately 0.3 cubic yard of concrete. A total of 640 square feet of new ground disturbance would result from construction of the driveway. Construction of the new driveway would require a permit from the City of Palms Springs.

Materials would be staged within the substation wall/fence during construction. All material would be delivered by truck. Construction traffic would use North Gene Autry Trail, to East Via Escuela, to Executive Drive and would be scheduled for off-peak traffic hours, to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work would be conducted. A traffic control service would be used if needed.

Construction Schedule

Construction within Farrell Substation would take a total of approximately 65 days, commencing approximately in the second quarter of 2010 and concluding by mid-2011, including testing and energizing the substation.

2.6.8 Garnet Substation

Engineering Plan

Garnet Substation is an unstaffed, 115/33/12 kV substation located in north Palm Springs. The proposed improvements at Garnet Substation include the conversion of the existing Garnet-Santa Rosa 115 kV subtransmission line to the new Farrell-Garnet 115 kV subtransmission line, installation of new line protection relays, and replacement of the existing bus tie protection relays.

Equipment

The proposed improvements at Garnet Substation include the installation of the new Garnet-Farrell 115 kV subtransmission line and new line protection relays. No ground disturbance or additional lighting would be required as part of the proposed substation improvement.

Construction Plan

New relays would be provided for installation of the new Farrell-Garnet 115 kV subtransmission line, and relays would be upgraded for the 115 kV bus tie position.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Garnet Substation as a result of this work.

Staging Access

Materials would be staged within the substation wall/fence during construction. All material would be delivered by truck. Construction traffic would use Indian Canyon Drive and would be scheduled for off-peak traffic hours, to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work is being prepared. A traffic-control service would be used if needed.

Construction Schedule

Construction within Garnet Substation would take a total of approximately 16 days, commencing approximately in the second quarter of 2010 and concluding by mid-2011, including testing and energizing the substation.

2.6.9 Thornhill Substation

Engineering Plan

Thornhill Substation is an unstaffed, 115/12 kV low-profile substation located in Palm Springs. The proposed improvements at Thornhill Substation include the conversion of the existing Thornhill-Tamarisk 115 kV subtransmission line to the new Devers-Eisenhower-Thornhill 115 kV subtransmission line and the installation of new line protection relays.

Equipment

The proposed improvements at Thornhill Substation include the installation of the new Devers-Eisenhower-Thornhill 115 kV subtransmission line and new line protection relays. No ground disturbance or additional lighting would be required as part of the proposed substation improvement.

Construction Plan

New relays would be provided for installation of the new Devers-Eisenhower-Thornhill 115 kV subtransmission line in support of the of the new 115 kV subtransmission line rearrangement.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Thornhill Substation as a result of this work.

Staging Access

Materials would be staged within the substation wall/fence during construction. All material would be delivered by truck. Construction traffic would use Indian Canyon Drive to South Calle Amigos and would be scheduled for off-peak traffic hours, to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work is being prepared. A traffic control service would be used if needed.

Construction Schedule

Construction within Thornhill Substation would take a total of approximately 40 days, commencing approximately in the second quarter of 2010 and concluding by mid-2011, including testing and energizing the substation.

2.6.10 Tamarisk Substation

Engineering Plan

Tamarisk Substation is an unstaffed, 115/12 kV low-profile substation located in Rancho Mirage. The proposed substation scope of work at Tamarisk Substation includes the conversion of the existing Mirage-Tamarisk 115 kV subtransmission line to the new Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line, conversion of the existing Santa Rosa-Tamarisk 115 kV subtransmission line to the new Devers-Capwind–Mirage-Tamarisk 115 kV subtransmission line, conversion of the existing Tamarisk-Thornhill 115 kV subtransmission line to the reconfigured Eisenhower-Tamarisk 115 kV subtransmission line, replacement of one 115 kV circuit breaker in existing Position No. 4, and installation of new line protection relays.

Equipment

The proposed improvements to the Tamarisk Substation would include one 115 kV, 1,200 amp, 40 kA duty circuit breaker. Approximately 171 square feet of ground disturbance would occur within the fenced substation area. Additional site lighting would not be required as part of the proposed substation improvement.

Construction Plan

New relays would be installed in support of the new 115 kV subtransmission line rearrangement to accommodate the new Devers-Capwind-Mirage-Tamarisk 115 kV subtransmission line.

Drainage

Site drainage installations would be consistent with the existing NPDES permit requirements and best engineering practices. There would be no change to the existing drainage patterns at Tamarisk Substation as a result of this work.

Staging and Access

Materials would be staged within the substation wall/fence during construction. All material would be delivered by truck. Construction traffic would use Dinah Shore Drive south to Plumley Road and would be scheduled for off-peak traffic hours to the extent possible. Concrete truck deliveries may need to be made during peak hours when footing work is being prepared. A traffic control service would be used if needed.

Construction Schedule

Construction within Tamarisk Substation would take a total of approximately 40 days, commencing approximately in the second quarter of 2010 and concluding by mid-2011, including testing and energizing the substation.

2.6.11 Common Construction Methods for All Substations

Construction for all substations mentioned above would be performed by SCE construction crews and/or contractors under the supervision of SCE personnel. Construction activities would begin by mobilizing the civil or below-grade construction crews on site. Where ground disturbance would occur, the area would be cleared of existing crushed rock, and the rock would be temporarily stockpiled on site. Excavation and auguring would begin for the new equipment foundations, where required. Excavation would be performed with a skip loader. Foundations would be placed with corresponding anchor bolts or steel imbed plates. Trench excavation would follow for the installation of conduit duct runs and equipment grounding systems. The previously cleared crushed rock would be placed back in the affected areas after the completion of the below-grade construction.

Electrical construction crews would move on site following the completion of all below-grade structures. Electrical crews would begin by erecting structural steel, installing disconnect switches, voltage devices, surge arresters, circuit breakers, and primary conductors. Wiring crews would begin wiring the internal components of the circuit breaker and voltage devices. Wiring crews would connect secondary cables at the switch-rack equipment and in the control room. The control room would house the protective relaying equipment. The new equipment would be tested to verify electrical integrity and proper operation of the equipment throughout the construction process. Construction areas would be monitored by SCE-provided security services outside of normal working hours on Monday through Friday and 24 hours a day on Saturdays and Sundays.

All debris generated during construction activities would be placed in appropriate onsite containers and periodically disposed of in accordance with all applicable regulations.

2.6.12 Hazardous Materials and Waste Management

Construction for all substation work mentioned above would result in the generation of various waste materials, including materials associated with removal activities and construction within the substation. A summary of the waste generation estimates is presented below in Table 2-5, *Substation Construction Waste Generation Estimates*.

TABLE 2-5
SUBSTATION CONSTRUCTION WASTE GENERATION ESTIMATES

Element	Waste Item	Cubic Yards Total	Cubic Yards Reusable on Site	Cubic Yards Recyclable or Disposed
Mirage Substation				
Civil	Soil	1,200	1,200	0
	Wood	100	0	100
	Concrete	1,200	1,195	5
	Sanitation Waste	60	0	60
	Miscellaneous	20	0	20
Electrical	Wood	80	0	80
	Aluminum	240	160	80
	Copper	200	160	40
	Steel	30,000	30,000	0
	Sanitation Waste	60	0	60
	Miscellaneous	20	0	20
Concho Substation				
Electrical	Copper	3	2	1
	Sanitation Waste	1	0	1
	Miscellaneous	1	0	1
Indian Wells Substation				
Electrical	Copper	3	2	1
	Sanitation Waste	1	0	1
	Miscellaneous	1	0	1
Santa Rosa Substation				
Electrical	Copper	3	2	1
	Sanitation Waste	1	0	1
	Miscellaneous	1	0	1
Devers Substation				
Civil	Soil	21	21	0
	Concrete	21	21	0
Electrical	Aluminum	3	2	1
	Copper	1	1	0
	Steel	2	2	0
	Sanitation Waste	2	0	2

TABLE 2-5 (Continued)
SUBSTATION CONSTRUCTION WASTE GENERATION ESTIMATES

Element	Waste Item	Cubic Yards Total	Cubic Yards Reusable on Site	Cubic Yards Recyclable or Disposed
Eisenhower Substation				
Civil	Soil	90	90	0
	Wood	1	0	1
	Concrete	90	89	1
	Sanitation Waste	2	0	2
	Rock	25	25	0
Electrical	Aluminum	40	35	5
	Copper	20	15	5
	Steel	5	5	0
	Sanitation Waste	2	0	2
Farrell Substation				
Civil	Soil	115	115	0
	Wood	1	0	1
	Concrete	118	115	3
	Sanitation Waste	2	0	2
	Rock	25	25	0
Electrical	Aluminum	40	35	5
	Copper	20	15	5
	Steel	5	5	0
	Sanitation Waste	2	0	2
Garnet Substation				
Electrical	Copper	3	2	1
	Sanitation Waste	1	0	1
	Miscellaneous	1	0	1
Thornhill Substation				
Electrical	Copper	3	2	1
	Sanitation Waste	1	0	1
Tamarisk Substation				
Civil	Soil	12	12	0
	Concrete	12	12	0
	Sanitation Waste	1	0	1
	Rock	1	1	0
Electrical	Aluminum	3	2	1
	Copper	1	1	0
	Steel	2	2	0
	Sanitation Waste	2	0	2

Construction within substation sites would require limited use of hazardous materials, including fuel, lubricants, and cleaning solutions. All hazardous materials that would be used for the substation components would be stored, handled, and used in accordance with applicable regulations, and the Hazardous Materials and Waste Handling Management plan (see Applicant Proposed Measure (APM) HAZ-1 in Section 4.7.3).

For the installation of the additional transformer at Mirage Substation, SCE would incorporate Best Management Practices (BMPs) and design measures through a SPCC Plan to minimize the possibility of any spills or releases from the transformer.

2.6.13 Construction Schedule

Proposed substation construction activities would be completed in the time frames as described for each substation in the previous sections, overlapping with the proposed subtransmission line construction. The scheduled operating date for the project is mid-2011. Substation construction would be scheduled to occur Monday through Friday. Table 2-6, *Substation Construction Personnel and Equipment Summary*, identifies the number of personnel and equipment needed for construction of the substation improvements.

2.7 Telecommunications

2.7.1 Engineering Plan

Telecommunication systems provide circuits that interface with the protection relays to protect transmission and subtransmission lines. The telecommunication circuits allow sensor relays to operate during abnormal conditions by providing remote-control operation and monitoring of substation equipment such as circuit breakers, transformers, and capacitors. With the use of existing fiber optic cables and microwave radios, a telecommunications transport interconnect can be established between the SCE substations that require protection circuits.

Telecommunication circuits required to interface with protection relays at IID Coachella Valley Substation require a hand-over of such protection circuit to IID telecommunications department for transport over IID telecommunication systems. Telecommunication system interconnect points between SCE and IID are located at the Edom Hill Communications Site and Mirage Substation, and protection circuits demarcation points shall occur at one or both of the interconnect locations.

Equipment

Telecommunications equipment, including channel bank and fiber optic equipment, would be installed at Concho, Devers, Eisenhower, Farrell, Garnet, Indian Wells, Mirage, Santa Rosa, Tamarisk, and Thornhill substations. Additional telecommunication equipment, for telecommunication system interconnects, would be required at Edom Hill Communications Site and Palm Springs Service Center. All telecommunication equipment would be installed within existing buildings.

TABLE 2-6
SUBSTATION CONSTRUCTION PERSONNEL AND EQUIPMENT SUMMARY

Construction Element	Number of Personnel	Equipment Type	Equipment Duration (days)	Equipment Use (hours/day)
Mirage Substation				
Civil	14	1-Office Trailer (Electric)	80	8
		1-Driller (Diesel)	50	8
		2-Crew Trucks (Gas/Diesel)	80	2
		1-14-Ton Crane (Diesel)	25	4
		1-Dump Truck (Gas/Diesel)	75	6
		1-Tractor (Diesel)	75	6
		1-5-Ton Truck (Gas/Diesel)	15	4
		1-Forklift (Diesel)	75	4
		1-Ditch Digger (Diesel)	55	6
Electrical	23	1-Office Trailer (electric)	110	8
		2-Manlifts (Diesel)	100	6
		1-Pick-Up Truck (Gas/ Diesel)	110	2
		1 14-Ton Crane Truck (Gas/Diesel)	90	6
		2-Crew Trucks (Gas/ Diesel)	110	2
		1-150-Ton Crane (Diesel)	60	6
		1-5-Ton Truck (Gas/Diesel)	50	2
		1-Forklift (Diesel)	100	6
		2-Carryall Vehicles (Gas/ Diesel)	110	2
		1-Support Truck (Gas/ Diesel)	25	2
Transformer Installation	12	2-Carryall (Gas/Diesel)	22	6
		1-Manlifts (Diesel)	20	6
		1-Forklift (Diesel)	22	6
		1-50-Ton Crane (Diesel)	15	6
		2-Crew Trucks (Gas/Diesel)	22	2
		1-Processing Trailer (Electric)	15	8
Maintenance	5	1-Foreman Truck (Gas/Diesel)	40	2
		1-Manlifts (Gas/Diesel)	40	6
		2-Crew Trucks (Gas/Diesel)	110	2
		1-Gas/Processing Trailer (Electric)	20	8
Test	2	1-Pick-Up Truck (Gas/Diesel)	110	2
Concho Substation				
Electrical	2	1-Carryall Vehicle (Gas/ Diesel)	34	2
Test	2	1-Pick-Up Truck (Gas/Diesel)	34	2
Indian Wells Substation				
Electrical	2	1-Carryall Vehicle (Gas/Diesel)	50	2
Test	2	1-Pick-Up Truck (Gas/Diesel)	50	2
Santa Rosa Substation				
Electrical	2	1-Carryall Vehicle (Gas/Diesel)	40	2
Test	2	1-Pick-Up Truck (Gas/Diesel)	40	2

TABLE 2-6 (Continued)
SUBSTATION CONSTRUCTION PERSONNEL AND EQUIPMENT SUMMARY

Construction Element	Number of Personnel	Equipment Type	Equipment Duration (days)	Equipment Use (hours/day)
Devers Substation				
Civil	4	1-Driller (Diesel)	2	8
		1-Crew Truck (Gas/ Diesel)	5	2
		1-Dump Truck (Gas/ Diesel)	5	6
		1-Tractor (Diesel)	5	6
Electrical	6	1-Office Trailer (Electric)	60	8
		1-Manlift (Diesel)	45	6
		1-Pick-Up Truck	60	2
		1-Crew Truck (Gas/ Diesel)	60	2
		1-150-Ton Crane (Diesel)	10	6
		1-Forklift (Diesel)	40	6
		1-Carryall Vehicle (Gas/Diesel)	60	2
Maintenance	2	1-Foreman Truck (Gas/ Diesel)	5	2
		1-Crew Truck (Gas/ Diesel)	10	2
		1-Gas/Processing Trailer (Electric)	5	8
Test	2	1-Pick-Up Truck (Gas/Diesel)	20	2
Eisenhower Substation				
Civil	4	1-Driller (Diesel)	5	8
		1-Crew Truck (Gas/Diesel)	15	2
		1-Dump Truck (Gas/Diesel)	15	6
		1-Tractor (Diesel)	15	6
		1-Ditch Digger (Diesel)	5	6
Electrical	6	1-Office Trailer (Electric)	45	8
		1-Manlift (Diesel)	35	6
		1-Crew Truck (Gas/Diesel)	45	2
		1-150-Ton Crane (Diesel)	20	6
		1-Forklift (Diesel)	45	6
		1-Carryall Vehicle (Gas/Diesel)	45	2
Maintenance	2	1-Foreman Truck (Gas/Diesel)	5	2
		1-Crew Truck (Gas/Diesel)	10	2
		1-Gas/Processing Trailer (Electric)	10	8
Test	2	1-Pick-Up Truck (Gas/Diesel)	45	2
Farrell Substation				
Civil	6	1-Driller (Diesel)	10	8
		1-Crew Truck (Gas/Diesel)	20	2
		1-Dump Truck (Gas/Diesel)	20	6
		1-Tractor (Diesel)	20	6
		1-Ditch Digger (Diesel)	10	6
Electrical	6	1-Office Trailer (Electric)	55	8
		1-Manlift (Diesel)	40	6
		1-Crew Truck (Gas/Diesel)	55	2
		1-150-Ton Crane (Diesel)	25	6

TABLE 2-6 (Continued)
SUBSTATION CONSTRUCTION PERSONNEL AND EQUIPMENT SUMMARY

Construction Element	Number of Personnel	Equipment Type	Equipment Duration (days)	Equipment Use (hours/day)
Farrell Substation (cont.)				
Electrical (cont.)		1-Forklift (Diesel)	55	6
		1-Carryall Vehicle (Gas/Diesel)	55	2
Maintenance	2	1-Foreman Truck (Gas/Diesel)	5	2
		1-Crew Truck (Gas/Diesel)	10	2
		1-Gas/Processing Trailer (Electric)	10	8
Test	2	1-Pick-Up Truck (Gas/Diesel)	55	2
Garnet Substation				
Electrical	2	1-Carryall Vehicle (Gas/Diesel)	16	2
Test	2	1-Pick-Up Truck (Gas/Diesel)	16	2
Thornhill Substation				
Electrical	2	1-Carryall Vehicle (Gas/Diesel)	40	2
Test	2	1-Pick-Up Truck (Gas/Diesel)	40	2
Tamarisk Substation				
Civil	3	1-Crew Truck (Gas/Diesel)	5	2
		1-Dump Truck (Gas/Diesel)	5	6
		1-Tractor (Diesel)	5	6
Electrical	4	1-Office Trailer (Electric)	40	8
		1-Manlift (Diesel)	5	6
		1-Pick-Up Truck (Gas/Diesel)	40	2
		1-Crew Truck (Gas/Diesel)	40	2
		1-150-Ton Crane (Diesel)	2	6
		1-Forklift (Diesel)	5	6
		1-Carryall Vehicle (Gas/Diesel)	40	2
Maintenance	2	1-Foreman Truck (Gas/Diesel)	1	2
		1-Crew Truck (Gas/Diesel)	2	2
		1-Gas/Processing Trailer (Electric)	1	8
Test	2	1-Pick-Up Truck (Gas/Diesel)	30	2

Routing

As part of the Proposed Project, existing fiber optic cables would be transferred from existing poles to the new poles to be installed for both the proposed Mirage-Santa Rosa and Farrell-Garnet 115 kV subtransmission lines. The telecommunication line conduit diameter is approximately five inches.

2.7.2 Construction Plan

The existing fiber optic cables would be transferred from existing poles to the new 115 kV subtransmission poles that would be installed within existing ROWs or franchise locations. The All-Dielectric Self-Supporting (ADSS) fiber optic cables would be attached to a support block

beneath the end of each 10-foot wood cross-arm on each new pole as shown in Figure 2-3. Telecommunications equipment installation would occur within existing SCE substation buildings and at the Edom Hill Communications Site. IID equipment and circuit installation would occur at the IID's mechanical-electrical equipment room (MEER).

Staging and Access

Since no new fiber optic cable would be installed, no additional staging areas for cable reel equipment would be necessary to perform the telecommunications construction. Existing access roads would be used and therefore no new ground disturbance would occur as a result of the fiber optic cable removal and installation process.

Construction Schedule

The telecommunications construction would occur after the installation of the new 115 kV poles, which would require vehicles to access each individual pole, separate from the proposed subtransmission line construction activities. Telecommunication equipment and circuit installation would occur throughout the project timeline. With the possible exception of Edom Hill Communications Site, it is not anticipated that access to the work location would influence the construction schedule.

Labor and Equipment

The personnel, equipment, and construction schedule for the telecommunication system are listed in Table 2-7, *Telecommunication Construction Summary*.

Hazardous Materials and Waste Management

Electronics components associated with telecommunication construction activities would be removed from the site and returned to the technician's home base for disposal in accordance with SCE policies and all applicable regulations.

Post-Construction and Clean-Up

All debris associated with construction would be placed in appropriate onsite containers, or removed, and periodically disposed of in accordance with all applicable regulations.

2.7.3 Operation and Maintenance

The telecommunication system would require periodic routine maintenance as well as emergency procedures for service continuity. Routine maintenance would include equipment testing, equipment monitoring, and repair. No additional SCE personnel, beyond normal staffing levels, would be required to operate or maintain the telecommunication system for the substation.

TABLE 2-7
TELECOMMUNICATION CONSTRUCTION SUMMARY

Construction Element	Number of Personnel	Number of Days	Equipment Requirements
Mirage-Santa Rosa 115 kV Subtransmission Route			
Cable Construction	4	5	2 – Bucket Trucks (Diesel) 1 – Pick-Up (Gasoline) 1 – 2-Axle Trailer
Receive and Load Out Materials	4	1	1 – 5-Ton Forklift (Diesel) 1 – Pick-Up (Gasoline)
Clean-Up	4	1	2 – Bucket Trucks (Diesel) 1 – Pick-Up (Gasoline)
Farrell-Garnet 115 kV Subtransmission Alignment			
Cable Construction	4	18	2 – Bucket Trucks (Diesel) 1 – Pick-Up (Gasoline) 1 – 2-Axle Trailer
Receive and Load Out Materials	4	1	1 – 5-Ton Forklift (Diesel) 1 – Pick-Up (Gasoline)
Clean-Up	4	1	2 – Bucket Trucks (Diesel) 1 – Pick-Up (Gasoline)
Devers, Equipment/Circuit Installation			
Equipment Installation	3	5	2 – Pick-Up (Gasoline)
Circuit Installation	2	5	2 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Mirage, Equipment/Circuit Installation			
Equipment Installation	3	10	2 – Pick-Up (Gasoline)
Circuit Installation	2	10	2 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Tamarisk, Equipment/Circuit Installation			
Equipment Installation	3	6	2 – Pick-Up (Gasoline)
Circuit Installation	2	6	2 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Eisenhower, Equipment/Circuit Installation			
Equipment Installation	3	5	2 – Pick-Up (Gasoline)
Circuit Installation	2	5	2 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Concho, Equipment/Circuit Installation			
Equipment Installation	3	5	2 – Pick-Up (Gasoline)
Circuit Installation	2	5	2 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Indian Wells, Equipment/Circuit Installation			
Equipment Installation	3	35	2 – Pick-Up (Gasoline)
Circuit Installation	2	3	2 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Santa Rosa, Equipment/Circuit Installation			
Equipment Installation	3	7	2 – Pick-Up (Gasoline)
Circuit Installation	2	7	2 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)

TABLE 2-7 (Continued)
TELECOMMUNICATION CONSTRUCTION SUMMARY

Construction Element	Number of Personnel	Number of Days	Equipment Requirements
Thornhill, Equipment/Circuit Installation			
Equipment Installation	2	5	1 – Pick-Up (Gasoline)
Circuit Installation	2	5	1 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Garnet, Equipment/Circuit Installation			
Equipment Installation	2	5	1 – Pick-Up (Gasoline)
Circuit Installation	2	5	1 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Farrell, Equipment/Circuit Installation			
Equipment Installation	2	5	1 – Pick-Up (Gasoline)
Circuit Installation	2	5	1 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Edom Hill C.S., Equipment/Circuit Installation			
Equipment Installation	2	5	1 – Pick-Up (Gasoline)
Circuit Installation	2	5	1 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)
Palm Springs S.C., Equipment/Circuit Installation			
Equipment Installation	2	3	1 – Pick-Up (Gasoline)
Circuit Installation	2	3	1 – Pick-Up (Gasoline)
Clean-Up	1	1	1 – Pick-Up (Gasoline)

2.8 Electric and Magnetic Fields Summary

2.8.1 Electric and Magnetic Fields

This EIR does not consider electric and magnetic fields (EMF) in the context of the CEQA analysis of potential environmental impacts because [1] there is no agreement among scientists that EMF creates a potential health risk, and [2] there are no defined or adopted CEQA standards for defining health risk from EMF. However, recognizing that there is a great deal of public interest and concern regarding potential health effects from human exposure to EMF from transmission lines, this document does provide information regarding EMF associated with electric utility facilities and human health and safety. Thus, the EMF information in this EIR is presented for the benefit of the public and decision makers.

Potential health effects from exposure to *electric fields* from transmission lines (i.e., the force field produced by the existence of an electric charge, such as an electron, ion, or proton, in the volume of space or medium that surrounds it) have not been established. Electric fields are generally not thought of as a concern since electric fields are effectively shielded by materials such as trees, walls, etc. Therefore, the majority of the following information related to EMF focuses primarily on exposure to *magnetic fields* (i.e., the invisible fields created by moving

charges) from transmission lines. Additional information on electric and magnetic fields generated by transmission lines is presented in Appendix D.

After several decades of study regarding potential public health risks from exposure to power line EMF, research results remains inconclusive. Several national and international panels have conducted reviews of data from multiple studies and state that there is not sufficient evidence to conclude that EMF causes cancer. Most recently the International Agency for Research on Cancer (IARC) and the California Department of Health Services (DHS) both classified EMF as a *possible* carcinogen.

Presently, there are no applicable federal, State, or local regulations related to EMF levels from power lines or related facilities, such as substations. However, the CPUC has implemented a decision (D.06-01-042) requiring utilities to incorporate "low-cost" or "no-cost" measures for managing EMF from power lines up to approximately four percent of total project cost. Using the four percent benchmark, SCE has incorporated low-cost and no-cost measures to reduce magnetic field levels along the subtransmission and transmission corridors.

2.8.2 EMF and the Proposed Project

SCE has conducted a design comparison of calculated magnetic field levels for the transmission line (i.e., 0.8-mile 220 kV Loop-In) portion of the Proposed Project. Table 2-8, *Comparison of Calculated Magnetic Fields at Edges of Right of Way*, shows a comparison of magnetic field levels for the existing design and the Proposed Project within the existing 0.8-mile ROW associated with the 220 kV Loop-In portion of the Proposed Project.

TABLE 2-8
COMPARISON OF CALCULATED MAGNETIC FIELDS AT EDGES OF RIGHT OF WAY

Design Options	Left ROW (mG)	% Reduction	Right ROW (mG)	% Reduction
220 kV Loop-In				
Existing 220 kV Design	13.8	Base	22.8	Base
Proposed 220 kV Design	12.1	12.3	12.9	43.4
Proposed 220 kV Design + 10 Feet	12.3	Less than 15% increase	12.7	1.6

NOTE: This table lists calculated magnetic field levels for design comparison only and is not meant to predict actual magnetic field levels.

SOURCE: SCE, 2008b.

In accordance with the EMF Design Guidelines, filed with the CPUC in compliance with CPUC Decisions 93-11-013 and 06-01-042, SCE would implement the following "no-cost and low-cost" magnetic field reduction measures. The field reduction measures would include:

For the Devers 115 kV System

- Using taller poles (typically 65 to 70 feet above the ground, except in areas near the Farrell Substation, where poles would be about 75 feet above ground).
- Using a double-circuit pole-head configuration (or similar); and
- Phasing the proposed subtransmission line with respect to the existing 115 kV subtransmission line as follows:
  - Devers-Farrell-Windland 115 kV: A-B-C (top to bottom)
  - Garnet-Farrell 115 kV: C-B-A (top to bottom)

For the Mirage 115 kV System – From Calle Francisco to near Calle Tosca

- Using taller poles (typically 65 to 70 feet above the ground).
- Using a double-circuit pole-head configuration; and
- Phasing the proposed subtransmission line with respect to the existing 115 kV subtransmission line as follows:
  - Mirage-Santa Rosa-Tamarisk 115 kV: A-B (top to bottom) on the west side and C on the right side
  - Mirage-Santa Rosa 115 kV: C-B-A (top to bottom)
  - Mirage-Concho 115 kV: A-B-C (top to bottom)

For the Mirage 115 kV System – From Calle Tosca to South of I-10 Freeway

- Using taller poles (typically 65 to 70 feet above the ground).
- Using a double-circuit pole-head configuration; and
- Phasing the proposed subtransmission line with respect to the existing 115 kV subtransmission line as follows:
  - Mirage-Santa Rosa 115 kV: C-B-A (top to bottom)
  - Mirage-Concho 115 kV: A-B-C (top to bottom)

For the 115 kV System Reconfigurations (Area D)

- Phasing the proposed subtransmission line with respect to the existing 115 kV subtransmission line as follows:
  - Eisenhower-Farrell 115 kV: C-B-A (top to bottom)
  - Devers-Eisenhower-Thornhill 115 kV: A-B-C (top to bottom)

For the 115 kV System Reconfigurations (Area E)

- Phasing the proposed subtransmission line with respect to the existing 115 kV subtransmission line as follows:
  - Mirage-Capwind-Devers-Tamarisk 115 kV: C-B-A (top to bottom)
  - Mirage-Santa Rosa-Tamarisk 115 kV: A-B-C (top to bottom)

For the 220 kV Loop-In

- Phasing the newly created transmission line with respect to the existing 220 kV transmission lines as follows:
  - Devers-Mirage No. 2 220 kV: A-B-C (top to bottom)
  - Devers-Mirage No. 1 220 kV: B-C-A (top to bottom)

- Mirage-Coachella Valley 220 kV: A-B-C (top to bottom)
- Julian Hinds-Mirage 220 kV: C-B-A (top to bottom)
- Coachella Valley-Ramon 220 kV: A-B-C (top to bottom)

2.9 References

SCE, 2009. Southern California Edison (SCE), 2009. Electronic communication from Milissa Marona, SCE Project Manager, to Eric Chiang, CPUC Project Manager, July 8, 2009.

SCE, 2008a. Proponent's Environmental Assessment, Devers-Mirage 115 kV Subtransmission System Split Project. January 31, 2008.

SCE, 2008b. Application of Southern California Edison Company for a Permit to Construct Electrical Facilities with Voltages between 50 kV and 200 kV: Devers-Mirage 115 Kilovolt Subtransmission System Split Project. January 31, 2008.

CHAPTER 3
Alternatives and Cumulative Projects

This section documents: (1) the range of alternatives that was suggested and evaluated; (2) the approach and methods used to screen the feasibility of these alternatives according to guidelines established under CEQA; (3) the results of the alternatives screening; and (4) the description of cumulative projects. This section is organized as follows: Section 3.1 is an overview of the alternatives screening process; Section 3.2 describes the methodology used for alternatives evaluation; Section 3.3 presents a summary of the alternatives that have been selected for full EIR analysis as well as a summary of the alternatives that have been eliminated based on CEQA criteria; Section 3.4 describes the alternatives that have been retained for full EIR analysis, including the No Project Alternative; and Section 3.5 presents descriptions of each of the alternatives that were eliminated from EIR analysis and explains why each was eliminated. Finally, Section 3.6 identifies and describes the other past, present, and reasonably foreseeable future projects that are considered in the cumulative impact analysis for this EIR.

3.1 Alternatives Development and Screening Process

One of the most important aspects of the environmental review process is the identification and assessment of reasonable alternatives that have the potential for avoiding or minimizing the impacts of a proposed project. In addition to mandating consideration of the No Project Alternative, CEQA Guidelines (Section 15126(d)) emphasize the selection of a reasonable range of technically feasible alternatives and adequate assessment of these alternatives to allow for a comparative analysis for consideration by decision makers. CEQA Guidelines state that the discussion of alternatives shall focus on alternatives capable of eliminating or reducing significant adverse environmental effects of a proposed project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. However, CEQA Guidelines declare that an EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote or speculative.

Several alternatives were identified by SCE in its Proponent's Environmental Assessment (PEA) and others were developed by SCE and the EIR preparers subsequent to SCE's filing of the PEA. Particular emphasis was placed on developing feasible alternatives that would place the upgraded and new subtransmission lines entirely within SCE's existing ROW.

In total, the alternatives screening process culminated in the identification and screening of 12 potential alternatives to SCE's Proposed Project. These alternatives included different alignments to various reconductoring options as well as "non-wires alternatives."[1]

3.2 Alternatives Screening Methodology

The evaluation of alternatives to the proposed Devers-Mirage 115 kV Subtransmission System Split Project was completed using a screening process that consisted of three steps, including:

> *Step 1*: Clarify the description of each alternative to allow comparative evaluation.
>
> *Step 2*: Evaluate each alternative using CEQA criteria (defined below).
>
> *Step 3*: Determine the suitability of each alternative for full analysis in the EIR. Infeasible alternatives and alternatives that clearly offered no potential for overall environmental advantage were removed from further analysis.

Following the three-step screening process, the advantages and disadvantages of the remaining alternatives were carefully weighed with respect to CEQA's criteria for consideration of alternatives. These criteria are discussed in greater detail below.

CEQA Guidelines (Section 15126(a)) state that:

> *An EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.*

In order to comply with CEQA's requirements, each alternative that has been suggested or developed for this project has been evaluated in three ways:

- Does the alternative meet most basic project objectives?
- Is the alternative feasible (legal, regulatory, technical)?
- Does the alternative avoid or substantially lessen any significant effects of the Proposed Project (including consideration of whether the alternative itself could create significant effects potentially greater than those of the Proposed Project)?

3.2.1 Consistency with Project Objectives

CEQA Guidelines require the consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives" (Section 16126.6(b)). Therefore, it is not required that each alternative meet all of SCE's objectives.

[1] "Non-wires alternatives" include methods of meeting project objectives that do not require major subtransmission lines (e.g., renewable energy supplies, conservation and demandside management, etc.).

The objectives of the Proposed Project are defined by SCE in its PEA (SCE, 2008). This EIR does not adopt or endorse the objectives that SCE has defined for its Proposed Project. SCE's stated objectives are presented below.

SCE's Proposed Project Objectives

- Serve projected electrical demand requirements in the Electrical Needs Area.
- Maintain electrical system reliability within the Devers 220 kV Transmission System and Electrical Needs Area.
- Enhance operational flexibility by providing the ability to transfer load between subtransmission lines and substations within the Electrical Needs Area.
- Utilize existing SCE facilities and ROWs, where feasible.
- Meet projected need while minimizing environmental impacts.
- Meet project need in a cost-effective manner.

3.2.2 Feasibility

CEQA Guidelines (Section 15364) define feasibility as:

> *…capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.*

In addition, CEQA requires that the lead agency consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and proponent's control over alternative sites in determining the range of alternatives to be evaluated in the EIR (CEQA Guidelines Section 15126.6(f)). Feasibility can include three components:

- **Legal Feasibility:** Does the alternative have the potential to avoid lands that have legal protections that may prohibit or substantially limit the feasibility of permitting a sub-transmission or transmission line?
- **Regulatory Feasibility:** Does the alternative have the potential to avoid lands that have regulatory restrictions that may substantially limit the feasibility of, or permitting of, a sub-transmission or transmission line within a reasonable period of time?
- **Technical Feasibility:** Is the alternative feasible from a technological perspective, considering available technology; the construction, operation, and maintenance or spacing requirements of multiple facilities using common rights-of-way; and the potential for common mode failure?

For the screening analysis, the legal, technical, and regulatory feasibility of potential alternatives was assessed. The assessment was directed toward reverse reason; that is, a determination was

made as to whether there was anything about the alternative that would be infeasible on technical, legal, or regulatory grounds.

This screening analysis does not focus on relative economic factors or costs of the alternatives (as long as they are found to be economically feasible) since CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives or would be more costly" (CEQA Guidelines Section 16126.6(b)).

3.2.3 Potential to Eliminate Significant Environmental Effects

CEQA requires that to be fully considered in an EIR, an alternative must have the potential to "avoid or substantially lessen any of the significant effects of the project" (CEQA Guidelines Section 16126.6(a)).

If an alternative were identified that clearly would not provide potential overall environmental advantage as compared to the Proposed Project, it would have been eliminated from further consideration. At the screening stage, it is neither possible, nor legally required, to evaluate all of the impacts of the alternatives in comparison to the Proposed Project with absolute certainty, nor is it possible to quantify impacts. However, it is possible to identify elements of an alternative that are likely to be the sources of impact and to relate them, to the extent possible, to general conditions in the subject area.

Table 3-1 presents a summary of the potential significant environmental effects of the Proposed Project. This impact summary was prepared using a liberal definition of "potentially significant" so as to avoid excluding alternatives that may provide some overall environmental benefit. Also, since this impact summary was prepared prior to completion of the EIR analysis, it may not be complete in comparison to the detailed analysis now presented in Section 4 of this EIR. However, the impacts in Table 3-1 are representative of those resulting from preliminary EIR preparation and were therefore used to determine whether an alternative met CEQA Guidelines Section 16126.6(a) requirements.

3.3 Summary of Screening Results

Table 3-2 provides a composite list of the alternatives considered, and the results of the screening analysis with respect to the criteria findings for consistency with project objectives, feasibility, and environmental effectiveness. Alternatives carried forward for full EIR analysis are listed below in Section 3.3.1. Alternatives eliminated from further consideration follow in Section 3.3.2. Of the nine alternatives that would result in routing the upgraded transmission line, four were eliminated based on technical infeasibility.

TABLE 3-1
SUMMARY OF POTENTIAL SIGNIFICANT ENVIRONMENTAL IMPACTS
OF THE DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Issue Area	Impact
Aesthetics	• Degradation of viewshed due to replacement of existing poles with taller poles, and installation of new lattice towers
Air Quality	• Short-term equipment exhaust emissions could exceed applicable thresholds
Biological Resources	• Temporary and/or permanent impacts to habitat important to listed species • Inconsistency with Coachella Valley Multi Species Habitat Conservation Plan
Cultural Resources	• Construction disturbance to recorded and/or unknown cultural and historic resources
Hazards and Hazardous Materials	• Impacts to surface or groundwater from construction-related use of hazardous materials
Hydrology and Water Quality	• Degradation of water quality through sedimentation or construction-related erosion
Noise	• Construction-related short-term noise impacts on sensitive land uses • Continuous operational noise from substations and/or transmission line corona discharge
Transportation and Traffic	• Short-term closures or traffic controls on highways and roads during construction • Short-term construction interruption to pedestrian/bicycle/vehicular traffic, public transit, property access, and/or emergency response vehicles

3.3.1 Alternatives Analyzed in the EIR

The alternatives listed below are those that have been selected through the alternative screening process for detailed EIR analysis; the No Project Alternative is also included as required by CEQA. Each of the alignment alternatives would substantially meet project objectives, would be feasible, and would avoid or reduce some of the potential environmental effects of the Proposed Project. The alternatives are briefly described in Table 3-2 as well as in greater detail in Section 3.4. Figure 3-1, *Alternatives Overview*, illustrates the general alignment of the five project alternatives compared to the Proposed Project alignments.

- No Project Alternative
- Alternative 2
- Alternative 3
- Alternative 5
- Alternative 6
- Alternative 7

TABLE 3-2
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

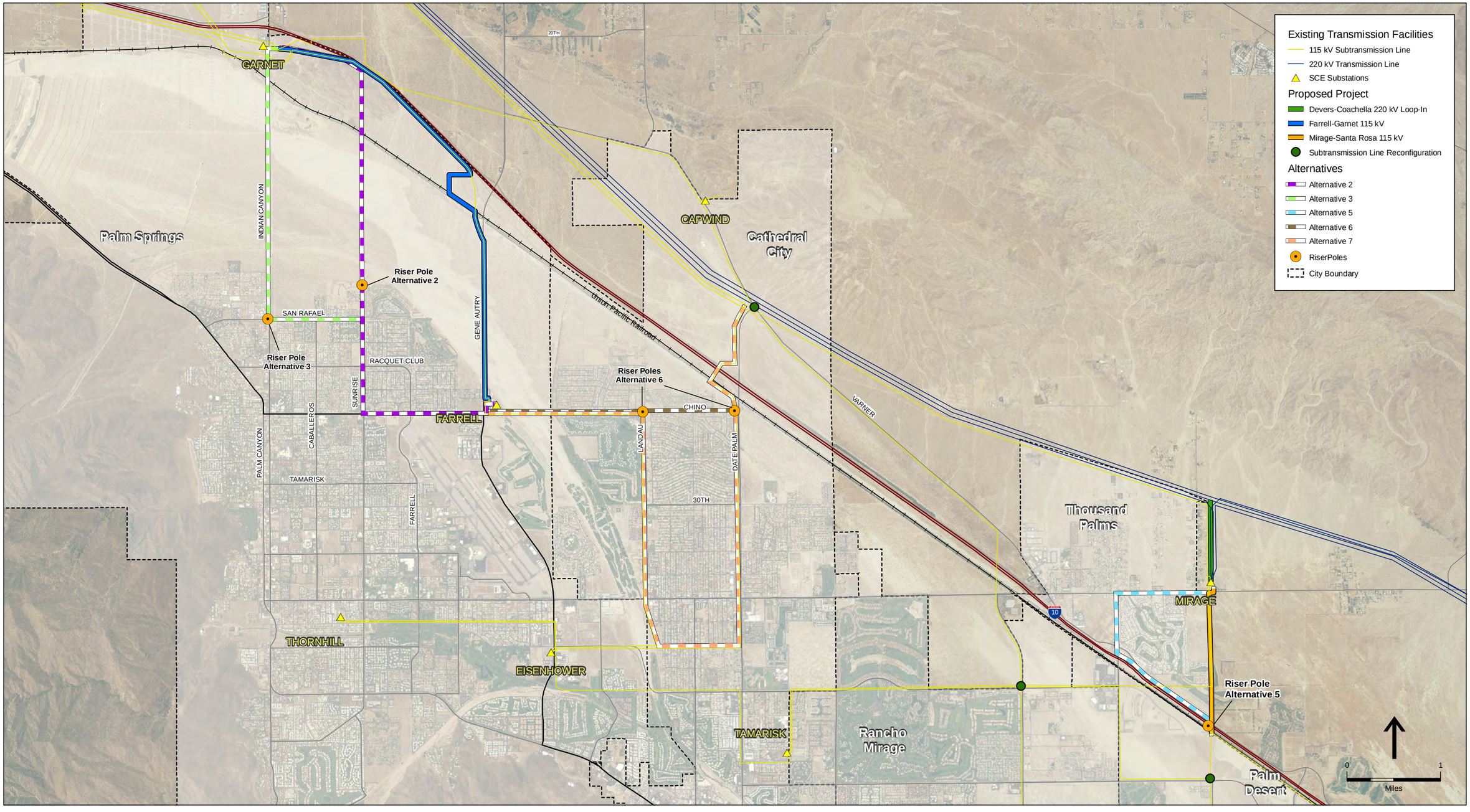
Alternative	Project Objectives Criteria	Feasibility Criteria	Environmental Criteria
Passes Screening			
Alternative 2 • Alternative to the proposed Farrell-Garnet subtransmission line, avoids sensitive resources along Gene Autry Trail • Uses 1.5 miles of existing distribution ROW, 1.5 miles of subtransmission line ROW, and 3.0 miles of road franchises (total length, 0.2 mile longer than the proposed alignment), no new SCE ROW required • 3.0 miles of underground line in existing roads	Meets the basic project objectives.	Meets feasibility criteria.	Meets environmental criteria, although may result in different types of impacts than the proposed Farrell-Garnet subtransmission line.
Alternative 3 • Alternative to the proposed Farrell-Garnet subtransmission line, avoids sensitive resources along Gene Autry Trail • Uses 2.9 miles of existing distribution ROW and 3.6 miles road franchises (total length, 0.7 mile longer than the proposed alignment), no new SCE ROW required • 3.6 miles of underground line in existing roads	Meets the basic project objectives.	Meets feasibility criteria.	Meets environmental criteria, although may result in different types of impacts than the proposed Farrell-Garnet subtransmission line.
Alternative 5 • Alternative to the proposed Mirage-Santa Rosa subtransmission line, avoids sensitive resources along the proposed alignment • Uses 3.1 miles of road franchises (total length, 1.5 miles longer than the proposed alignment), no new SCE ROW required • 3.0 miles of underground line in existing roads	Meets the basic project objectives.	Meets feasibility criteria.	Meets environmental criteria, although may result in different types of impacts than the proposed Mirage-Santa Rosa subtransmission line.
Alternative 6 • Alternative to the proposed Farrell-Garnet subtransmission line, avoids sensitive resources along Gene Autry Trail • Uses 3.2 miles of existing subtransmission line ROW, and 1.0 mile of road franchise (total length, 1.6 miles shorter than the proposed alignment), no new SCE ROW required • 1.0 mile of underground line in existing roads	Meets the basic project objectives.	Meets feasibility criteria.	Meets environmental criteria, although may result in different types of impacts than the proposed Farrell-Garnet subtransmission line.

TABLE 3-2 (Continued)
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS FOR THE DEVERS-MIRAGE 115KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Alternative	Project Objectives Criteria	Feasibility Criteria	Environmental Criteria
Passes Screening (cont.)			
Alternative 7 • Alternative to the proposed Farrell-Garnet subtransmission line, avoids sensitive resources along Gene Autry Trail • Uses 9.1 miles of existing subtransmission ROW (total length, 3.3 miles longer than the proposed alignment), no new SCE ROW required	Meets the basic project objectives.	Meets feasibility criteria.	Meets environmental criteria, although may result in different types of impacts than the proposed Farrell-Garnet subtransmission line.
Fails Screening			
Alternative 1 • Alignment is within existing SCE ROW north of the UPRR • Would avoid the need for new SCE ROW associated with the proposed Farrell-Garnet subtransmission line	Meets the basic project objectives.	Fails. Legal feasibility is uncertain given lease renewal issues along the existing ROW.	Meets environmental criteria, although may result in different types of impacts than the proposed Farrell-Garnet subtransmission line.
Alternative 1A • Avoids BLM land that would be crossed by the proposed Farrell-Garnet subtransmission line in the vicinity of the UPRR • Requires 0.8 mile of new SCE ROW	Meets the basic project objectives.	Fails. Legal feasibility is uncertain given lease renewal issues along the existing ROW.	Meets environmental criteria, although may result in different types of impacts than the proposed Farrell-Garnet subtransmission line.
Alternative 2 – Overhead • Follows the same alignment as Alternative 2; however, the entire line would be overhead	Meets the basic project objectives.	Fails. Poles along Vista Chino in the vicinity of Palm Springs International Airport would be considered obstacles to air navigation. FAA would not permit as defined.	Fails. Poles along Vista Chino in the vicinity of Palm Springs International Airport would be considered obstacles to air navigation causing significant safety hazards to air navigation in the area.
Alternative 3 – Overhead • Follows the same alignment as Alternative 3; however, the entire line would be overhead	Meets the basic project objectives.	Fails. Poles along Vista Chino in the vicinity of Palm Springs International Airport would be considered obstacles to air navigation. FAA would not permit as defined.	Fails. Poles along Vista Chino in the vicinity of Palm Springs International Airport would be considered obstacles to air navigation causing significant safety hazards to air navigation in the area.
No System Split Alternative • Two new subtransmission lines would be constructed, but the existing 115 kV Subtransmission System would not be split.	Fails. Would not achieve the demand requirement or system operation flexibility objectives.	Meets feasibility criteria.	Meets environmental criteria, although may result in different types of impacts than the Proposed Project.

TABLE 3-2 (Continued)
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Alternative	Project Objectives Criteria	Feasibility Criteria	Environmental Criteria
Fails Screening (cont.)			
Non-Wires – Energy Conservation and Demand Side Management • Replace need for subtransmission lines and the 220 kV loop-in through implementation of energy conservation programs	Fails. Would not serve projected demand or reliability objectives for the Proposed Project.	Fails. These programs are not feasible on a scale that would be suitable to replace the Proposed Project within a reasonable period of time.	Meets environmental criteria. Complete avoidance of the Proposed Project would eliminate the potential impacts of the construction, operation, and maintenance of the subtransmission lines and 220 kV loop-in, and no new significant impacts would be created.
Non-Wires – Renewable or Conventional/Distributed Generation Energy Resources • Renewable or Conventional/Distributed Generation • Provide local sources of electricity that would not require the upgrade of the subtransmission and transmission lines or substations	Fails. There is limited potential for local renewable resources or distributed generation to meet the projected demand or reliability objectives for the Proposed Project.	Fails. Because even local renewable or distributed resources would require upgraded or new subtransmission and transmission infrastructure.	Fails. Large scale geothermal, wind, or solar facilities would potentially result in greater environmental impacts for aesthetics, cultural, and biological resources, and would occur in addition to the impacts from upgraded or new subtransmission and transmission infrastructure.



SOURCE: SCE, 2008; NAIP, 2005

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 3-1

Alternatives Overview

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3.3.2 Alternatives Eliminated from EIR Consideration

The alternatives that have been eliminated through the alternative screening process from analysis in the EIR are listed below. As summarized in Table 3-2, these alternatives have been eliminated due to project objectives and feasibility concerns, and in some cases because the alternative would have greater environmental impacts than the Proposed Project. The rationale for elimination of each alternative is summarized in Table 3-2 and is described in greater detail in Section 3.5.

- Alternative 1
- Alternative 1A
- Alternative 2 - Overhead
- Alternative 3 - Overhead
- No System Split Alternative
- "Non-Wires" – Energy Conservation and Demand Side Management
- "Non-Wires" – Renewable or Conventional/Distributed Generation Energy Resources.

3.4 Alternatives Evaluated in this EIR

3.4.1 No Project Alternative

CEQA requires an evaluation of the No Project Alternative in order for decision makers to compare the impacts of approving the project with the impacts of not approving the project. According to CEQA Guidelines (Section 15126.6[e]), the No Project Alternative must include:

(a) the assumption that conditions at the time of the Notice of Preparation (i.e., baseline environmental conditions) would not be changed since the Proposed Project would not be installed, and

(b) the events or actions that would be reasonably expected to occur in the foreseeable future if the project were not approved. The first condition is described in the EIR for each environmental discipline as the "environmental baseline," since no impacts of the Proposed Project would be created. This section defines the second condition of reasonably foreseeable actions or events. The impacts of these actions are evaluated in each issue area's analysis in Section 4.

Under the No Project Alternative, the Proposed Project would not be implemented. The existing Devers 115 kV Subtransmission System would not be split and the existing Devers-Coachella Valley 220 kV transmission line would not be looped into Mirage Substation. None of the Project Objectives would be met, and the Electrical Needs Area would potentially experience a shortage of electricity during the summer peak season and electrical system could become vulnerable to upset until a new project could be designed, permitted, and constructed to provide additional transmission capacity and reliability to the area. The improved system reliability and operating flexibility associated with the Proposed Project would not occur. Therefore, without upgrades to the existing system, as new facilities are added, the system would experience system-wide power flow and reliability problems due to overloading of the existing system, such as curtailed generation, thermal overload, and blackouts.

If the Proposed Project 115 kV components and/or the alignment alternatives are not implemented, SCE would continue to implement existing operating procedures to compensate for the anticipated shortfall in the supply of electric power for the Electrical Needs Area. Operating procedures to relieve base case thermal overloads would include transferring load between the substations via distribution circuits, load dropping on one or more distribution circuits, or disconnecting entire substations from the Devers 115 kV Subtransmission System. The latter two operating measures would cause extended outages within the Electrical Needs Area until the base case thermal overload conditions could be eliminated.

Similarly, if the proposed Devers-Coachella Valley 220 kV Loop-In is not constructed, voltage problems would exist on the Devers 220 kV Transmission System by 2010. The No Project Alternative would leave SCE vulnerable to be unable to provide sufficient, reliable service to the Electrical Needs Area, in violation of North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) criteria.

In addition, SCE would likely be required to implement demand-side management (DSM) programs to reduce customer energy consumption and overall electricity use, including shifting energy use to off-peak periods. The CPUC supervises various DSM programs administered by the regulated utilities, and many municipal electric utilities have their own DSM programs. The combination of these programs constitutes the most ambitious overall approach to reducing electricity demand administered by any state in the nation. Reducing demand is an essential part of SCE's operations with or without the Proposed Project and is not directly related to the Proposed Project.

It would be speculative to predict the type and location or schedule of permanent development for new power plants and transmission needed to overcome the transmission system constraints that would remain under the No Project Alternative. However, for purposes of this analysis, the No Project Alternative could include either of the following components or combination of components:

- Construction of new subtransmission and transmission facilities at 115 kV and 220 kV or higher voltage, possibly requiring the development of new transmission alignments; and
- Construction of additional regional generation.

3.4.2 Alternative 2

Alignment Description

Alternative 2 would include the construction of approximately six miles of a new underground and overhead single-circuit 115 kV subtransmission line within existing California Department of Transportation (Caltrans) and the City of Palm Springs road franchise locations and SCE rights-of-way (ROW) between the Farrell and Garnet substations. See Figure 3-1, *Alternatives Overview*, for an illustration of the Alternative 2 alignment.

From Farrell Substation, the underground segment of Alternative 2 would head south on Gene Autry Trail to Vista Chino. It would then continue west along Vista Chino for approximately 1.3 miles. At Sunrise Way, the line would turn north, and proceed along Sunrise Way to Four Seasons Boulevard, where the underground segment would end and the subtransmission line would transition to overhead at a riser pole (see riser pole discussion under *Underground Line Construction*, below). From Four Seasons Boulevard to the intersection of the existing Devers-Farrell-Windland 115 kV subtransmission line (approximately 1.5 miles), the new overhead line would be constructed within existing SCE distribution line[2] ROWs. The alignment would then turn west, within the existing Devers-Farrell-Windland 115 kV subtransmission line ROW for approximately 1.5 miles. Within the existing subtransmission line ROW, the proposed Farrell-Garnet and existing Devers-Farrell-Windland lines would be consolidated on new double-circuit support structures on the south side of I-10 to Garnet Substation.

Overhead Line Construction

Along the overhead segment, the existing distribution poles would be removed and the distribution circuits would be installed on the new 115 kV single circuit structures. The heights of the existing distribution circuit support structures that would be replaced range from 34 feet to 48 feet above the ground surface. The single circuit subtransmission line poles that would replace the distribution poles would range in length from 61 feet to 71 feet above the ground surface. Construction of this alternative would require installation of approximately 101 new light-weight steel (LWS) poles, five tubular steel pole (TSP) double-circuit structures, one new TSP riser pole, and two sets of substation riser pedestals. See Figures 2-3 and 2-8 for illustrations of the LWS and TSP poles that would be associated with Alternative 2.

Riser poles, or riser pedestals, are required at the point at which an underground line terminates at an overhead line and vise versa. Alternative 2 would require two sets of eight-foot-tall substation riser pedestals at Farrell Substation to transition the overhead line from the substation rack to an underground line. A 95-foot-tall riser pole would be required where the line would transition from underground to overhead at Four Seasons Boulevard. A photograph of a riser pole similar to that that would be used for Alternative 2 is shown in Figure 3-2, *Example of a 115 kV Double-Circuit Riser Pole*. The cables would transition to overhead/underground at the risers through rigid conduits inside the risers. The low profile riser pedestals would be necessary at Farrell Substation, as opposed to riser poles, due to the substation's close proximity to Palm Springs International Airport and the associated flight paths.

Construction activities and methods that would be associated with the overhead line segments of the alternative would be similar to those described for the Proposed Project (see Section 2.4.3). Below is a description of the construction activities and methods that would be associated with the underground segment of Alternative 2.

[2] A distribution line is an electric power line designed at a voltage level of 50 kV of less. Distribution lines tend to provide electricity directly to electricity users.

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

SOURCE: SCE, 2008

Figure 3-2
Example of a 115 kV Double-Circuit Riser Pole

Underground Line Construction

To match the current carrying capacity of the alternative's overhead single-circuit 115 kV subtransmission line, the underground system would require the installation of two cables for each phase of the 115 kV lines resulting in six underground cables for the circuit. Each individual underground cable would be 1,750 kcmil cross linked polyethylene (XPLE) jacketed underground cable.

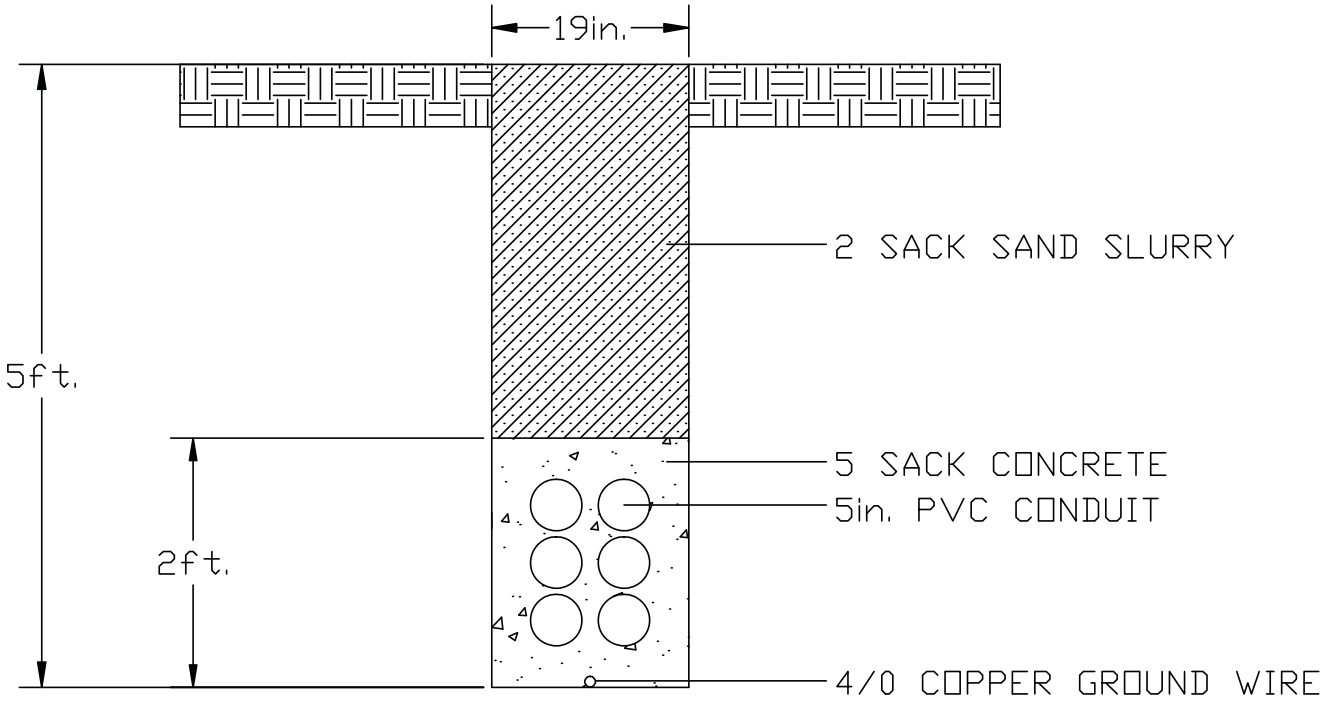
The underground cables would be installed in a buried concrete-encased duct bank system, as shown in Figure 3-3, *115 kV Double-Circuit Duct Bank*. The duct bank system would consist of six five-inch conduits, stacked vertically in columns of two, and one 4/0 copper ground wire. The conduit would be encased with five sack concrete and the trench would be backfilled with two sack sand slurry. As illustrated in Figure 3-3, the minimum dimension requirements for the subtransmission underground trench would be approximately five feet deep and 19 inches wide.

The trench may need to be deeper and/or wider depending on the location of other utilities, or other obstacles, that are in the ground along these alignments.

The total volume of excavated material for the three-mile segment associated with duct bank construction would amount to approximately 4,700 cubic yards. All excavated material would be disposed offsite. The location of the disposal would be the responsibility of the contractor installing the duct bank. It is anticipated that conduit installation would proceed at a rate of approximately 100 to 125 feet per day. Road closures and detours would be required along Vista Chino and Sunrise Way. During non-work hours, any open trench would be covered by either heavy-duty plywood in non-traffic areas or by steel plates in roadways.

Cable vaults would be installed at regular intervals below the ground surface along the underground segment. These vaults would house equipment and splices for the underground circuit due to the practical limit of the length of cable supplied on a reel. SCE has indicated that without the benefit of having conducted engineering of the underground line or surveying of the existing underground facilities in the area, they are not able to accurately determine how many vaults would be required along the underground segment. Although SCE has not engineered or surveyed the specifics of an underground segment associated with this alternative, they have recently indicated that the practical limit to distances between vaults is up to approximately 2,000 feet to allow splicing of the cable ends (CPUC, 2007). In addition, due to the requirements for cable pulling, vaults must be placed within 150 feet of the riser pole and riser pedestals. Therefore, it is reasonable to assume that at least 10 vaults would be required for Alternative 2.

It is estimated that the vaults would be approximately eight feet wide, 20 feet long, and approximately 10 feet deep, with a four by five foot opening at the top. Total excavated material for each vault would amount to approximately 50 cubic yards. All of the excavated material would need to be disposed of offsite. If the top of the vault would be below grade, concrete rings may be added until the "neck" of the vault would be at the ground surface. Then, a manhole section would be placed on top with a manhole cover. The vaults would be prefabricated and made of reinforced concrete. The vaults would be backfilled with two sack sand slurry around the



Devers-Mirage 115 kV Subtransmission System Split Project . 207059

SOURCE: SCE, 2008

Figure 3-3
115 kV Double Circuit Duct-Bank

outside of the vault once installation would be completed. Installation of each vault would take place over a period of approximately three days.

After the conduit system and the riser pole and riser pedestals have been constructed, the cable would be installed. Starting at one end, cable would be pulled from the first vault up through the riser pole or riser pedestals. Cable would then be pulled through to the next vault, and so on, until the last length of cable has been pulled through the riser pole or riser pedestals. Once installed, the cable would be ready to be spliced, terminated, tested, and energized. As described above, installation of two cables would be required per phase, resulting in the use of each of the six conduits in the duct bank for the single circuit.

After cable installation is complete, the cables would be spliced at all vaults. A splice trailer would be located near the vault manhole openings for easy access by workers. A mobile power generator would be located directly behind the trailer. The dryness of the vault would be maintained 24 hours per day to ensure that unfinished splices are not contaminated with water or impurities. Normal splicing hours would be 8 to 10 hours per day. At the end of each construction day, the vault would be closed and secured. When splicing would be completed at each vault, the splicing apparatus setup would be moved to the next vault location and splicing activities would be resumed.

Construction of the underground segment would be performed by SCE construction crews or contractors under the supervision of SCE personnel. Anticipated construction personnel and equipment are summarized below in Table 3-3, *Construction Equipment and Workforce Estimates (Alternative 2 Underground Segment)*.

Construction Schedule

On average, SCE estimates that it would take approximately 44 days to complete one mile of underground cable installation, including all of the components (e.g., vaults, etc.). The number of construction days required to install the underground cable segment would depend upon the number of vaults, cable splices, cable terminations, and lightning arrestors necessary to complete the project. Therefore, the underground line segment of Alternative 2 would require approximately six months of work effort. However, assuming construction of the overhead segment of the alternative would occur simultaneously with the underground segment, the overall length of calendar time to complete installation of Alternative 2 is estimated to be nine months.

Operations and Maintenance of Underground Segment

Regular maintenance would be required for the underground system on an annual basis. This would be accomplished through visual inspections of the cable and splices installed in each vault. Inspections would require approximately two full days of work with a two-person crew in a pick-up truck.

TABLE 3-3
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES
(Alternative 2 Underground Segment)

Construction Element (e.g., survey, etc.)	Number of Personnel	Number of Days	Equipment Requirements (including #, eq. description, hp)
Survey	4	5	2 – Pick-ups (Gasoline)
Substructure Installation (vaults, conduits, & riser pole foundations)	10	30	2 – Backhoes (Diesel) 1 – Auger machine (Diesel) 3 – Concrete trucks (Diesel) 3 – Pick-ups (Gasoline) 2 – Dump trucks (Diesel)
Steel Riser Pole Installations	10	4	1 – Line Truck (Diesel) 1 – 80-ton Hydro Crane (Diesel) 2 – Pick-ups (Gasoline) 1 – Bucket Truck (Diesel) 2 – Semi-tractors (Diesel)
Cable pulling	10	30	1 – Cable Pulling Machine (Diesel) 2 – Pickups (Diesel) 2 – Semi-Tractors (Diesel) 1 – Line Truck (Diesel)
Cable makeup (vault splicing)	10	30	2 – Crew vehicles (Gasoline) 1 – Splicing Van (Diesel)
Pothead terminations & surge arrestors	10	10	2 – Pick-ups (Gasoline) 1 – Bucket Truck (Diesel) 1 – Line Truck (Diesel)
Clean-up & restoration	5	22	1 – 10-ton Dump Truck (Diesel) 1 – Pick-up (Diesel) 1 – Asphalt truck (Diesel) 1 – Pavement compactor (Diesel)

3.4.3 Alternative 3

Alignment Description

Alternative 3 would include the construction of approximately 6.5 miles of new underground and overhead single-circuit 115 kV subtransmission line within existing Caltrans and the City of Palm Springs road franchise locations and SCE ROW between the Farrell and Garnet substations. See Figure 3-1 for an illustration of the Alternative 3 alignment.

From Farrell Substation, the underground segment of Alternative 3 would head south on Gene Autry Trail to Vista Chino. At Vista Chino, Alternative 3 would head west for approximately 1.3 miles until reaching Sunrise Way where the line would turn north and proceed along Sunrise Way to San Rafael Road. At San Rafael Road, Alternative 3 would head west to Indian Canyon Drive, where it would turn north and continue underground for approximately 50 feet before it would rise above ground at a riser pole. North of the riser pole, the line would continue north

overhead along Indian Canyon Drive within existing SCE distribution line ROW or City franchise to Garnet Substation. Along Indian Canyon Drive the line would cross over the Whitewater River drainage adjacent to the Whitewater River Floodplain Preserve.

Overhead Line Construction

The existing pole lengths for the distribution circuits that would be replaced range from 34 feet to 48 feet above the ground surface. Construction of this alternative would require installation of approximately 96 new LWS poles, 10 TSP structures, one TSP riser pole, and two sets of substation riser pedestals. See Figures 2-3 and 2-8 for general illustrations of the LWS and TSP poles that would be associated with Alternative 3 and Figure 3-2 for an example of a riser pole similar to that that would be required for Alternative 3. Several of the distribution poles that would be replaced just south of Garnet Substation support four distribution circuits. For an illustration of the new 115 kV poles that would also support the four existing distribution circuits, see Figure 3-4, *Single Circuit 115 kV Pole with Four Distribution Circuits*. Two sets of substation riser pedestals would be required at Farrell Substation to transition the overhead line from the substation rack to an underground line and one 95-foot riser pole would be required where the line would transition from underground to overhead on Indian Canyon Drive. Construction activities and methods that would be associated with the overhead line segments of the alternative would be similar to those described for the Proposed Project (see Section 2.4.3).

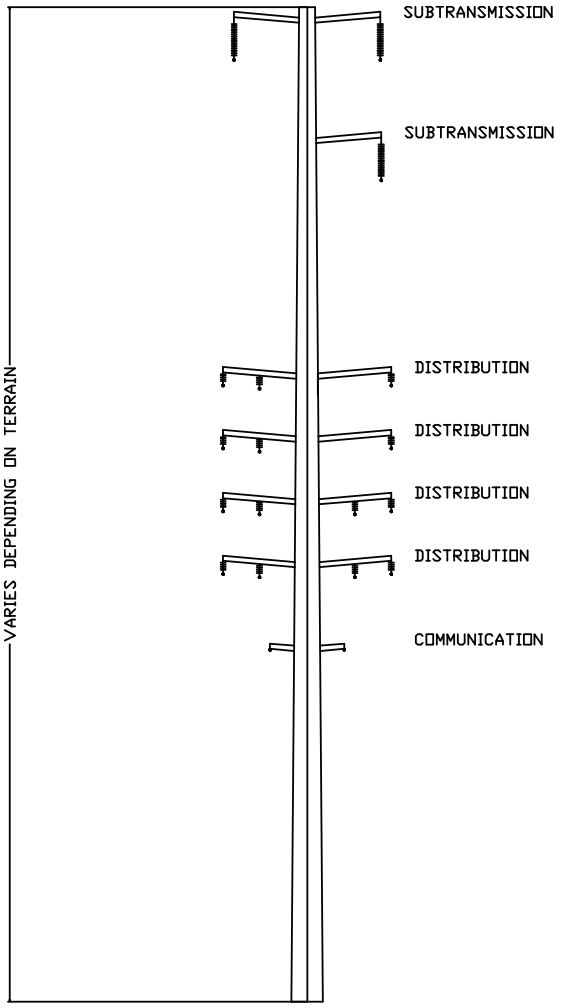
Underground Line Construction

Underground cables would be installed in a buried concrete-encased duct bank system. The total volume of excavated material for the 3.6-mile segment associated with Alternative 3 duct bank construction would amount to approximately 5,500 cubic yards. Road closures and detours would be required along Vista Chino, San Rafael Drive, and Sunrise Way. Cable vaults would be installed at regular intervals below the ground surface along the underground segment. Based on the practical limit to distances between vaults, it is reasonable to assume that at least 11 vaults would be required for Alternative 3. For more details regarding the underground components and associated construction, maintenance, and operational activities, refer to Section 3.4.2.

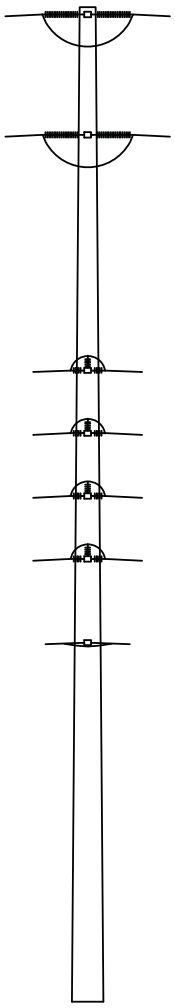
Construction of the underground segment would be performed by SCE construction crews or contractors under the supervision of SCE personnel. Anticipated construction personnel and equipment are summarized below in Table 3-4, *Construction Equipment and Workforce Estimates (Alternative 3 Underground Segment)*.

Construction Schedule

It is estimated that the underground line segment of Alternative 3 would require approximately seven months of work effort. However, assuming the overhead segment of the alternative would occur simultaneously with the underground segment, the overall length of calendar time to complete installation of Alternative 3 is estimated to be approximately ten months.



FRONT VIEW OF A SINGLE CIRCUIT ENGINEERED STEEL SUBTRANSMISSION SUSPENSION POLE WITH FOUR DISTRIBUTION CIRCUITS AND TWO COMMUNICATION CIRCUITS (IF NECESSARY)



SIDE VIEW OF A SINGLE CIRCUIT ENGINEERED STEEL SUBTRANSMISSION DEAD END POLE WITH FOUR DISTRIBUTION CIRCUITS AND TWO COMMUNICATION CIRCUITS (IF NECESSARY)

SOURCE: SCE, 2008

Figure 3-4
Single Circuit 115 kV Pole with
Four Distribution Circuits

TABLE 3-4
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES
(Alternative 3 Underground Segment)

Construction Element (e.g., survey, etc.)	Number of Personnel	Number of Days	Equipment Requirements (including #, eq. description, hp)
Survey	4	5	2 – Pick-ups (Gasoline)
Substructure Installation (vaults, conduits, & riser pole foundations)	10	33	2 – Backhoes (Diesel) 1 – Auger machine (Diesel) 3 – Concrete trucks (Diesel) 3 – Pick-ups (Gasoline) 2 – Dump trucks (Diesel)
Steel Riser Pole Installations	10	4	1 – Line Truck (Diesel) 1 – 80-ton Hydro Crane (Diesel) 2 – Pick-ups (Gasoline) 1 – Bucket Truck (Diesel) 2 – Semi-tractors (Diesel)
Cable pulling	10	33	1 – Cable Pulling Machine (Diesel) 2 – Pickups (Diesel) 2 – Semi-Tractors (Diesel) 1 – Line Truck (Diesel)
Cable makeup (vault splicing)	10	33	2 – Crew vehicles (Gasoline) 1 – Splicing Van (Diesel)
Pothead terminations & surge arrestors	10	10	2 – Pick-ups (Gasoline) 1 – Bucket Truck (Diesel) 1 – Line Truck (Diesel)
Clean-up & restoration	5	22	1 – 10-ton Dump Truck (Diesel) 1 – Pick-up (Diesel) 1 – Asphalt truck (Diesel) 1 – Pavement compactor (Diesel)

3.4.4 Alternative 5

Alignment Description

Alternative 5 would include the construction of approximately 3.1 miles of mostly new underground single-circuit 115 kV subtransmission line within existing Riverside County road franchise locations and SCE ROW between Mirage Substation and the existing Santa Rosa-Tamarisk 115 kV line. See Figure 3-1 for an illustration of the Alternative 5 alignment.

Alternative 5 would be installed underground between the Mirage Substation and the existing Mirage-Concho 115 kV overhead transmission line. From the Mirage Substation, Alternative 5 would head south on Vista de Oro until Ramon Road where it would turn and head west. At Monterey Avenue the alternative alignment would turn and head south to Varner Road, where it would then turn southeast on Varner Road and proceed to the point where it would join the existing Mirage-Concho 115 kV overhead transmission line. At this location, the underground

line would rise overhead, double circuiting the Mirage-Concho 115 kV subtransmission line. Alternative 5 would cross I-10 on TSPs and would connect with the existing Santa Rosa-Tamarisk line south of I-10.

Overhead Line Construction

Alternative 5 would require two 95-foot-tall riser poles to transition the overhead line to underground and vice versa. One pole would be located inside the Mirage Substation and the second pole would be located at the intersection of Varner Road and Vista De Oro. A photograph of a riser pole similar to those that would be used for Alternative 5 is shown in Figure 3-2. The cables would transition to overhead/underground at the risers through rigid conduits inside the risers. Construction activities and methods that would be associated with the overhead line segments of the alternative would be similar to those described for the Proposed Project (see Section 2.4.3).

Underground Line Construction

The total volume of excavated material for the three-mile segment associated with Alternative 5 duct bank construction would amount to approximately 3,130 cubic yards. The underground cable would be placed in street right of way provided that there is adequate space for SCE's facilities. Road closures and detours would be required along Ramon Road, Varner Drive, and Monterey Drive. Cable vaults would be installed at regular intervals below the ground surface along the underground segment. Based on the practical limit to distances between vaults, it is reasonable to assume that approximately ten vaults would be required for Alternative 5.

Construction of the underground segment would be performed by SCE construction crews or contractors under the supervision of SCE personnel. Anticipated construction personnel and equipment are summarized below in Table 3-5, *Construction Equipment and Workforce Estimates (Alternative 5 Underground Segment)*. For more details regarding the general underground components and associated construction, maintenance, and operational activities, refer to Section 3.4.2.

Construction Schedule

It is estimated that the underground line segment of Alternative 5 would require approximately six months of work effort. However, assuming the overhead segment of the alternative would occur simultaneously with the underground segment, the overall length of calendar time to complete installation of Alternative 5 is estimated to be approximately six months.

TABLE 3-5
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES
(Alternative 5 Underground Segment)

Construction Element (e.g., survey, etc.)	Number of Personnel	Number of Days	Equipment Requirements (including #, eq. description, hp)
Survey	4	5	2 – Pick-ups (Gasoline)
Substructure Installation (vaults, conduits, & riser pole foundations)	10	30	2 – Backhoes (Diesel) 1 – Auger machine (Diesel) 3 – Concrete trucks (Diesel) 3 – Pick-ups (Gasoline) 2 – Dump trucks (Diesel)
Steel Riser Pole Installations	10	4	1 – Line Truck (Diesel) 1 – 80-ton Hydro Crane (Diesel) 2 – Pick-ups (Gasoline) 1 – Bucket Truck (Diesel) 2 – Semi-tractors (Diesel)
Cable pulling	10	30	1 – Cable Pulling Machine (Diesel) 2 – Pickups (Diesel) 2 – Semi-Tractors (Diesel) 1 – Line Truck (Diesel)
Cable makeup (vault splicing)	10	30	2 – Crew vehicles (Gasoline) 1 – Splicing Van (Diesel)
Pothead terminations & surge arrestors	10	10	2 – Pick-ups (Gasoline) 1 – Bucket Truck (Diesel) 1 – Line Truck (Diesel)
Clean-up & restoration	5	22	1 – 10-ton Dump Truck (Diesel) 1 – Pick-up (Diesel) 1 – Asphalt truck (Diesel) 1 – Pavement compactor (Diesel)

3.4.5 Alternative 6

Alignment Description

Alternative 6 would include the construction of approximately 4.2 miles of new underground and overhead single-circuit 115 kV subtransmission line within existing Caltrans and Cathedral City road franchise locations and SCE ROW between Farrell Substation and the existing Garnet-Santa Rosa 115 kV ROW. See Figure 3-1 for an illustration of the Alternative 6 alignment.

Alternative 6 would exit Farrell Substation as an overhead line by heading south on Gene Autry Trail to Vista Chino. The line would then head east on Vista Chino approximately 1.7 miles to Landau Boulevard, where a riser pole would transition the line from overhead to underground. From Landau Boulevard, the underground line would continue east along Vista Chino traversing one mile to the existing SCE ROW of the Devers-Eisenhower 115 kV line along the west side of Date Palm Drive, where the line would transition from underground to overhead. From the

intersection of Vista Chino and Date Palm Drive, the new poles would continue 1.5 miles north within existing SCE ROW and Cathedral City franchise, to the Garnet leg of the Garnet-Santa Rosa 115 kV subtransmission line.

It should be noted that the proposed reconfigurations at Date Palm Drive and Varner Road would result in the Garnet-Santa Rosa 115 kV line becoming idle between Date Palm Drive/Varner Road and Garnet Substation (see *Reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV Line* discussion in Section 2.4.2). The new 115 kV single circuit associated with Alternative 6 would connect to the proposed idle Garnet-Santa Rosa 115 kV subtransmission line, re-energizing the idle line to Garnet Substation.

Overhead Line Construction

Alternative 6 would replace the existing single circuit poles associated with the Eisenhower-Farrell 115 kV subtransmission line along Vista Chino from Farrell Substation to Landau Boulevard with new double circuit poles. In addition, the Alternative 6 overhead segment along Date Palm Drive and existing SCE ROW would replace the existing single-circuit poles associated with the Devers-Eisenhower 115 kV subtransmissions line with new double circuit poles. A combination of LWS and engineered steel poles would be used for Alternative 6.

Alternative 6 would also require two 95-foot-tall riser poles to transition the overhead line to underground and vice versa. One pole would be located on the corner of Vista Chino and Landau Boulevard. The second pole would be located on the corner of Vista Chino and Date Palm Drive. A photograph of a riser pole similar to those that would be used for Alternative 6 is shown in Figure 3-2. The cables would transition to overhead/underground at the risers through rigid conduits inside the risers. Construction activities and methods that would be associated with the overhead line segments of the alternative would be similar to those described for the Proposed Project (see Section 2.4.3). See Figures 2-3 and 2-8 for illustrations of the poles that would be associated with Alternative 6.

Underground Line Construction

The total volume of excavated material for the one-mile underground segment associated with Alternative 6 duct bank construction would amount to approximately 1,570 cubic yards. Road closures and/or detours would be required along Vista Chino, Landau Drive, and Date Palm Drive. It is estimated that approximately five vaults would be required for Alternative 6.

Construction of the underground segment would be performed by SCE construction crews or contractors under the supervision of SCE personnel. Anticipated construction personnel and equipment are summarized below in Table 3-6, *Construction Equipment and Workforce Estimates (Alternative 6 Underground Segment)*. For more details regarding the underground components and associated construction, maintenance, and operational activities, refer to Section 3.4.2.

TABLE 3-6
CONSTRUCTION EQUIPMENT AND WORKFORCE ESTIMATES
(Alternative 6 Underground Segment)

Construction Element (e.g., survey, etc.)	Number of Personnel	Number of Days	Equipment Requirements (including #, eq. description, hp)
Survey	4	5	2 – Pick-ups (Gasoline)
Substructure Installation (vaults, conduits, & riser pole foundations)	10	15	2 – Backhoes (Diesel) 1 – Auger machine (Diesel) 3 – Concrete trucks (Diesel) 3 – Pick-ups (Gasoline) 2 – Dump trucks (Diesel)
Steel Riser Pole Installations	10	4	1 – Line Truck (Diesel) 1 – 80-ton Hydro Crane (Diesel) 2 – Pick-ups (Gasoline) 1 – Bucket Truck (Diesel) 2 – Semi-tractors (Diesel)
Cable pulling	10	15	1 – Cable Pulling Machine (Diesel) 2 – Pickups (Diesel) 2 – Semi-Tractors (Diesel) 1 – Line Truck (Diesel)
Cable makeup (vault splicing)	10	15	2 – Crew vehicles (Gasoline) 1 – Splicing Van (Diesel)
Pothead terminations & surge arrestors	10	10	2 – Pick-ups (Gasoline) 1 – Bucket Truck (Diesel) 1 – Line Truck (Diesel)
Clean-up & restoration	5	22	1 – 10-ton Dump Truck (Diesel) 1 – Pick-up (Diesel) 1 – Asphalt truck (Diesel) 1 – Pavement compactor (Diesel)

Construction Schedule

It is estimated that the underground line segment of Alternative 6 would require approximately two months of work effort. However, assuming the overhead segment of the alternative would occur simultaneously with the underground segment, the overall length of calendar time to complete installation of Alternative 6 is estimated to be approximately nine months.

3.4.6 Alternative 7

Alternative 7 would include the construction of approximately 9.1 miles of a new overhead single-circuit 115 kV subtransmission line within existing Caltrans and Cathedral City road franchise locations and SCE rights-of-way (ROW) between Farrell Substation and the existing Garnet-Santa Rosa 115 kV ROW. See Figure 3-1 for an illustration of the Alternative 7 alignment.

Alternative 7 would exit Farrell Substation as an overhead line and head south on Gene Autry Trail to Vista Chino. The line would then head east on Vista Chino for approximately 1.7 miles to Landau Boulevard, where the line would turn south and continue along Landau Boulevard for approximately 2.5 miles before reaching 33rd Street. At 33rd Street, the line would turn east and continue along 33rd Street for approximately 0.9 mile to Date Palm Drive, where the line would turn north. On Date Palm Drive the line would continue north for 4.0 miles to the existing Garnet-Santa Rosa 115 kV ROW. See Figure 3-1 for an illustration of the Alternative 7 alignment.

Overhead Line Construction

Alternative 7 would replace the existing single circuit poles associated with the Eisenhower-Farrell 115 kV subtransmission line along Vista Chino from Farrell Substation to Landau Boulevard and along Landau Boulevard from Visa Chino to 33rd Street with new double circuit poles. In addition, along 33rd Street, Date Palm Drive, and existing SCE ROW, Alternative 7 would replace the existing single-circuit poles associated with the Devers-Eisenhower 115 kV subtransmission line with new double circuit poles. A combination of LWS and engineered steel poles would be used for Alternative 7. Construction activities and methods that would be associated with the alternative would be similar to those described for the Proposed Project (see Section 2.4.3). See Figures 2-3 and 2-8 for illustrations of the poles that would be associated with Alternative 7.

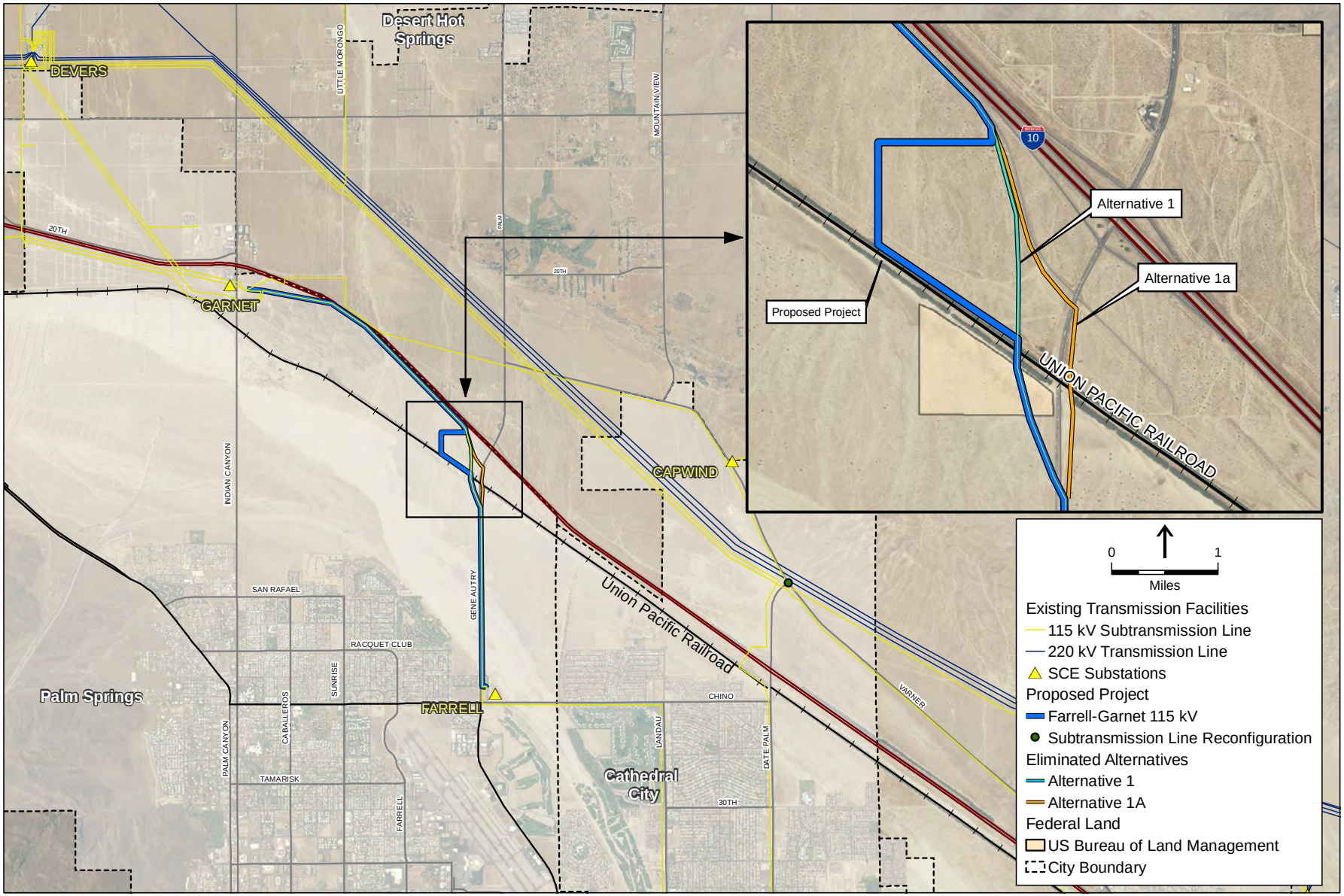
It should be noted that the proposed reconfigurations at Date Palm Drive and Varner Road would result in the Garnet-Santa Rosa 115 kV line becoming idle between Date Palm Drive/Varner Road and Garnet Substation (see *Reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV Line* discussion in Section 2.4.2). The new 115 kV single circuit that would be associated with Alternative 7 would connect to the proposed idle Garnet-Santa Rosa 115 kV subtransmission line, re-energizing the line to Garnet Substation. It is estimated that construction of Alternative 7 would occur over a period of approximately 12 months.

3.5 Alternatives Eliminated from Full EIR Evaluation

3.5.1 Alternative 1

Alignment Description

SCE originally identified Alternative 1 as part of its proposed alignment for the Farrell-Garnett 115 kV Subtransmission Line. Instead of the alignment turning northwest within a new ROW just north of the Union Pacific Railroad (UPRR) as currently proposed, the double-circuit poles associated with Alternative 1 would replace the existing single circuit poles within the 0.8 mile of existing SCE ROW that would be avoided by the Proposed Project alignment. As opposed to the Proposed Project, Alternative 1 would require no new ROW. See insert map on Figure 3-5, *Alternatives 1 and 1A Eliminated from EIR Consideration*, for an illustration of the Alternative 1 alignment.



SOURCE: SCE, 2008

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 3-5

Alternatives 1 and 1A - Eliminated from EIR Consideration

Rationale for Elimination

Alternative 1 was eliminated from further consideration in the EIR because subsequent to SCE's submittal of its PEA, it became apparent to SCE that the ROW lease held by the property owner along the existing 115 kV ROW is set to expire within the next few years and the subject property owner has indicated that he would not be willing to renew the lease agreement for the existing ROW alignment that extends from the UPRR to approximately 0.8 mile north of the UPRR, and the existing poles will have to be removed from the 0.8-mile segment. Through consultation with SCE, the property owner identified a preferred alignment to the west that would avoid the subject 0.8-mile portion of the existing ROW. Therefore, due to the lease renewal issues described above, SCE withdrew its support for Alternative 1 and modified its Proposed Project accordingly. From the CPUC's perspective, the legal feasibility of Alternative 1 is at best uncertain; therefore, full consideration of Alternative 1 was eliminated from this EIR.

3.5.2 Alternative 1A

Alignment Description

Alternative 1A would follow the proposed Farrell-Garnett alignment with the exception of an area near the intersection of Gene Autry Trail and the UPRR (see inset map on Figure 3-5). Instead of crossing Gene Autry Trail south of the railroad, Alternative 1A would continue north on the east side of Gene Autry Trail as a single circuit, until reaching Salvia Road. At Salvia Road this alternative alignment would then cross Gene Autry Trail on the south side of Salvia Road and follow Salvia Road until reaching I-10, where the alternative alignment would again be the same as the proposed Farrell-Garnett alignment. Alternative 1A would require new easements along Salvia Road but would not cross U.S. Bureau of Land Management (BLM) land.

Rationale for Elimination

As described above under the Alternative 1 discussion, subsequent to SCE's submittal of its PEA, it became apparent to SCE that the ROW lease held by the property owner along the existing 115 kV ROW north of the UPRR is set to expire within a few years and the subject property owner is not willing to renew the lease agreement for the existing ROW alignment that extends from the UPRR to approximately 0.8 mile north of the UPRR. The sole purpose of Alternative 1A was to have an option available for the Farrell-Garnett 115 kV line that would avoid the BLM land south of the UPRR. However, now that it is apparent that the 0.8 mile of existing poles north of the UPRR will have to be removed due to lease renewal issues, in order for Alternative 1A to be technically feasible, the poles south of the UPRR to the southern end of Alternative 1A would also have to be removed. Removal of the poles south of UPRR would require extensive construction activities on the BLM land, which would require BLM approval and would defeat the original purpose of the alternative. Therefore, due to the lease renewal issues described above and the inability of Alternative 1A to fulfill its original purpose of avoiding BLM land, full consideration of Alternative 1A was eliminated from this EIR.

3.5.3 Overhead Alternatives 2 and 3

Alignment Description

SCE originally identified Alternatives 2 and 3 in its PEA with overhead segments along Vista Chino, Sunrise Way, and San Rafael Road, instead of the underground segments that are identified in Sections 5.4.2 and 5.43.

Rationale for Elimination

During the CPUC's review of PEA Alternatives 2 and 3, it was determined that the poles that would be placed north of the Palm Springs International Airport would be classified by the Federal Aviation Administration (FAA) as obstacles and would potentially result in a hazard to air navigation in the vicinity of the airport. Therefore, for the purposes of this EIR, Overhead Alternatives 2 and 3 were determined to be infeasible.

3.5.4 No System Split Alternative

Description

The No System Split Alternative would include the construction of two new 115 kV subtransmission lines, but would not split the existing Devers 115 kV Subtransmission System. The No System Split Alternative would require construction of one new 115 kV line between Mirage Substation and the existing Santa Rosa-Tamarisk 115 kV circuit south of I-10 (Mirage-Santa Rosa-Tamarisk) and a second 115 kV subtransmission line between Mirage and Concho substations (Mirage-Concho No. 2). Additionally, the proposed 220 kV transmission line loop-in would be created by installing 8 LSTs and one TSP from Mirage Substation to the Devers-Coachella Valley 220 kV transmission line. A 280 MVA 220/115 kV transformer would be installed at Mirage Substation, and the 220 kV switchrack would be modified. SCE would construct the new Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line by installing approximately 40 new double-circuit LWS poles, approximately nine wood poles, and approximately five TSPs. The existing Mirage-Tamarisk 115 kV subtransmission line would be transferred to the new LWS poles. SCE would complete the circuit between the Mirage and Santa Rosa substations by adding approximately 1.5 miles of new conductor between Mirage Substation and the existing Santa Rosa-Tamarisk 115 kV line at the south side of I-10. This work would all be conducted within SCE's existing ROW or franchise locations.

In addition, SCE would construct a second Mirage-Concho 115 kV subtransmission line. Approximately 115 new double-circuit TSPs would be installed, and the existing Devers-Capwind-Concho-Mirage 115 kV subtransmission line would be transferred to the new poles. SCE would add approximately 6.4 miles of new conductor within its existing ROWs or franchise locations to complete the circuit between the Mirage and Concho substations.

Also, SCE would modify various line positions and upgrade relay protection at Concho, Santa Rosa, and Tamarisk substations. A new 280 MVA 220/115 kV transformer would be installed at the Mirage Substation. Additional telecommunications equipment, such as channel banks and

fiber optic equipment, would be installed at Concho, Mirage, Santa Rosa, and Tamarisk substations to provide protection circuits to the substation relays.

Rationale for Elimination

The No System Split Alternative would not eliminate the 220 kV power flow from the 115 kV subtransmission system. Failure to eliminate the 220 kV power flow from the 115 kV subtransmission system would negatively impact system operation flexibility. Operational procedures for the Devers 220 kV Transmission System and the existing Devers 115 kV Subtransmission System would need to be modified to address the impacts of the 220 kV power flow associated with the existing Devers 115 kV Subtransmission System. These operating procedures would include, but would not be limited to, rolling blackouts at the distribution-circuit level or interruptions of the entire 115 kV subtransmission line that would lead to eventual load-dropping of substation transformers.

Moreover, this alternative would not create two separate 115 kV subtransmission systems that would create tie lines between two 115 kV subtransmission systems that could serve as alternative sources for distribution substations when peak customer demand would cause a thermal overload condition on a 115 kV subtransmission line. Without such tie-lines, the existing operating procedures would still require dropping customer load when emergency loading limits were exceeded on any one of the 115 kV subtransmission lines on the existing Devers 115 kV Subtransmission System within the Electrical Needs Area.

Finally, this alternative would increase short-circuit duty on 18 substations within the Devers 115 kV Subtransmission System. The increase in short-circuit duty may accelerate the need for future system short-circuit duty upgrades (e.g., higher short-circuit duty rated circuit breakers).

Therefore, due to the No System Split Alternative's inability to achieve most of the stated objectives of the Proposed Project, this alternative was eliminated from full review in this EIR.

3.5.5 Demand-Side Management Alternative

Description

Demand-side management (DSM) programs are designed to reduce customer energy consumption. Regulatory requirements dictate that supply-side and demand-side resource options should be considered on an equal basis in a utility's plan to acquire lowest cost resources. One goal of these programs is to reduce overall electricity use. Some programs also attempt to shift such energy use to off-peak periods.

The CPUC supervises various DSM programs administered by the regulated utilities, and many municipal electric utilities have their own DSM programs. The combination of these programs constitutes the most ambitious overall approach to reducing electricity demand administered by any state in the nation. Economic and price considerations as well as long-term impacts of State-sponsored conservation efforts, such as the Governors 20/20 rebate program and new appliance efficiency standards, are considered in load forecasts.

Rationale for Elimination

The projected capacity savings of DSM activities would not defer the need of the Proposed Project. While reductions in demand are considered an essential part of SCE's existing and future operations, they are incorporated into its system base and peak load forecasts. The available energy savings from these programs would be insufficient to improve the service reliability to the Electrical Needs Area to the level desired and achieved through the Devers-Mirage 115 kV Subtransmission System Split Project. As a stand-alone alternative to the Proposed Project, energy conservation and load management programs in this EIR would represent a small fraction of the capacity requirements needed to meet the stated objectives for the Proposed Project. Therefore, due to the Demand Side Management Alternative's inability to achieve most of the stated objectives of the Proposed Project, this alternative was eliminated from full review in this EIR.

3.5.6 Renewable or Conventional/Distributed Generation Energy Resources Alternative

Description

Renewable

Executive Order #S-14-08 sets California's renewable energy goals at 33 percent by 2020. This requires all retail sellers of electricity to increase their procurement of eligible renewable resources to 33 percent by 2020. This is an increase from California's Renewable Portfolio Standard (RPS) that required retail sellers of electricity to increase their procurement of eligible renewable to 20 percent by 2017. The RPS Program was mandated by Senate Bill 1078 (SB 1078, Sher, Chapter 516, Statutes of 2002) under Public Utilities Code sections 381, 383.5, 399.11 through 399.15, and 445. The CPUC, in collaboration with the California Energy Commission (CEC), is addressing its responsibilities in implementing the RPS through its own proceedings. On March 8, 2003, the CEC and the CPUC approved an Energy Action Plan in addition to the Renewable Portfolio Standard. On April 22, 2004, the CPUC issued an Order Instituting Rulemaking to specifically address the RPS (R.04-04-026). On September 21, 2005, the Energy Action Plan II was finalized. The shared goal of the Energy Action Plan is to:

> *"Ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies, including prudent reserves, are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers."*

In January 2006, the CPUC created the California Solar Initiative (CPUC ruling R.04-03-017) which moves the consumer renewable energy rebate program for existing homes from the CEC to the utility companies under the direction of the CPUC.

The CEC manages $350 million targeted for new residential building construction. It will use funds already allocated to the CEC to foster renewable projects between 2007 and 2011. Called the New Solar Homes Partnership, it will focus on new residential construction.

Most of California's developed geothermal resources are located in Sonoma, Lake, Imperial, and Inyo Counties. Other geothermal resource areas in the State are found in Lassen, Mono, Siskiyou, and Modoc Counties. Some of the sites for new geothermal development are located in areas characterized by sensitive cultural and environmental concerns. Other issues that could delay development include permitting and access to transmission. The technologies most often used to produce electricity from geothermal resources in California are flash steam power and binary cycle power plants. The flash steam power technology is typically used at sites that have high temperature fluids (usually above 400 degrees Fahrenheit). Fluids at these sites boil into steam as they rise to the surface. The steam is used to power a turbine, which turns a generator to produce electricity. Binary cycle power plants can be used with lower temperature geothermal resources where the water does not become steam before rising to the surface.

At present, there are over 16,000 wind turbines in the U.S., with most of them located in California. In total, approximately 1,800 megawatts (MW) of electricity is generated from 105 separate wind farms. According to the Renewable Resources Development Report (CEC, 2003), Riverside County is one of three general area in California with high potential for wind generation capacity. Even in high capacity areas, wind energy technology requires approximately five to six acres per megawatt of wind power. In addition, the primary technical obstacle to utilizing wind generation is the lack of existing transmission infrastructure to transport the wind-generated power to the grid.

Currently there are two types of solar generation available: solar thermal power (also known as concentrating solar power) and photovoltaic (PV) power generation. At present, California generates approximately 345MW of power with solar thermal power plants, with the majority of these facilities being parabolic-trough electric plants installed in the Mojave Desert, due to the large tracks of land required for this technology. PV power systems are available on a significantly smaller scale, and have received increased support from private and public sections since the 1970s. PV systems typically convert about 10 percent of the available solar energy to alternating current electricity, and require approximately one square kilometer (247 acres) for a 100MW rated power system.

Distributed Generation

Distributed generation is electricity production that is on-site or close to the load center that could be interconnected at distribution, subtransmission, or transmission system voltages. Distributed generation is generally limited to systems less than 20 MW. Distributed generation does not included hydroelectricity, geothermal, non-combined heat and power related digester gas, landfill gas, and municipal solid waste.

In March 2007, the CEC released the staff report *Distributed Generation and Cogeneration Policy Roadmap for California* (CEC, 2007*).* The report included a vision for Distributed Generation and Cogeneration of being significant components of California's electrical system, meeting over 25 percent of the total peak demand. To achieve its vision, California will support incentives in the near term, transition to new market mechanisms, and reduce remaining institutional barriers.

Rationale for Elimination

Renewable resources for renewable energy programs are part of SCE's future operations and are incorporated into its long-term peak load forecasts. As separate and stand-alone programs, these renewable resource alternatives would not replace the need for upgrading the existing subtransmission and transmission infrastructure in the study area. Indeed, transmission system constraints are noted by the CEC as a substantial impediment to effective integration of renewable resources statewide. However, because renewable resources would not provide the demand, reliability, or operational flexibility needs of SCE, as stated in the objectives for the Proposed Project, and subtransmission and transmission infrastructure upgrades would still be required to integrate any renewable resources, this alternative was eliminated from further consideration.

The distributed generation industry is still a nascent industry that survives despite some difficult market conditions. There are numerous institutional, industry and market barriers that have impeded the growth and adoption of the industry to date. Although the potential is recognized, it is not currently a significant energy resource. The current distributed generation penetration is 2.5 percent of total peak demand in California (CEC, 2007). Because distributed generation would not provide the demand, reliability, or operational flexibility needs of SCE, as stated in the objectives for the Proposed Project, and subtransmission and transmission infrastructure upgrades would still be required to integrate distributed generation, this alternative has been eliminated from further consideration.

3.6 Cumulative Projects

As required by CEQA (Section 15130 et seq. of the CEQA Guidelines), this EIR includes an analysis of "cumulative impacts." CEQA defines cumulative impacts as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative analysis is intended to describe the "incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable probable future projects" and can result from "individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines, Section 15355).

A cumulative scenario has been developed to identify projects that are reasonably foreseeable and that would be constructed or operated during the life of the Proposed Project. The projects that comprise the cumulative impact scenario do not include existing projects that are completed or in operation. Existing projects are included as part of the environmental setting for individual issue areas and are analyzed with respect to each resource issue area in Chapter 4.

The projects considered to be part of the cumulative scenario are presented in Table 3-7, which also describes the approximate geographic location of each project. The projects in the cumulative scenario include a range of project types from small single-family housing developments and road improvements to one industrial project. Proposed and pending projects are presented that are in the vicinity of the Proposed Project and alternatives. See Figure 3-6 for the approximate locations of the cumulative projects identified in Table 3-7.

TABLE 3-7
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
1	Shook Building Systems, Inc.	Major Construction	670 Garnet Avenue West	City of Palm Springs	Construct a 13,680 square foot warehouse building for storage of portable storage units including a 400 square foot office area plus restrooms.	Approved, in Plan Check	Approximately 0.5 mile from Garnet Substation
2	Noble and Company, LLC	Zone Change	63300 Halleck Road	City of Palm Springs	Change of zone from Zone E-1 to Zone M-2 for subdivision of 30 acres into lots intended for commercial/industrial purposes.	In Process	Approximately 0.8 mile from Garnet Substation
3	Del Taco #706	Conditional Use Permit	6620 Indian Canyon Drive North	City of Palm Springs	Construct a Del Taco (#706) store per submitted plans.	Pending Initial Review	Approximately 250 feet from Garnet Substation
4	Office Warehouse	Major Construction	19302 Newhall Street	City of Palm Springs	Construct a 20,000 square foot office and warehouse at 19302 Newhall Street.	Approved Planning Commission	Approximately 0.5 mile from Garnet Substation
5	Warehouse Building/Retail	Major Construction	South of 20th Avenue and North of Indian Avenue.	City of Palm Springs	Construct a 27,926 square foot two-story building for selling and warehousing of stone products with 2,985 square feet of offices.	Approved Planning Commission - 09/28/05	Approximately 0.4 mile from Garnet Substation
6	Warehouse/Office Building	Major Construction	19486 Newhall Street.	City of Palm Springs	Construct a 7,925+ square foot commercial/industrial building for office and warehouse use with parking lot.	In Plan Check	Approximately 0.3 mile from Garnet Substation
7	Desert View East	Major Construction	19024 Ruppert Street	City of Palm Springs	Construct a 5,108 square foot warehouse/office building.	Approved Planning Commission - 06/14/06	Approximately 0.5 mile from Garnet Substation
8	Subdivision	Subdivision	63800 20th Avenue West	City of Palm Springs	Subdivision of a 10.37-acre property for industrial/ commercial lots.	Approved 04/01/09	Approximately 0.3 mile from Garnet Substation
9	Wildcat 36	Major Construction	19391, 19437 Newhall Street	City of Palm Springs	Construction of four 5,144 square foot industrial buildings.	Under Construction	Approximately 0.4 mile from Garnet Substation
10	Orr Warehouse	Major Construction	63-695 Orr Way	City of Palm Springs	Construct three industrial buildings: two at 9,157 square feet and one at 19,199 square feet on 2.16 acres.	In Plan Check	Approximately 0.5 mile from Garnet Substation
11	Palm Springs Material Recovery Facility	Conditional Use Permit	19th Avenue, Orr Way, and McLane Street.	City of Palm Springs	Request to amend CUP 5.0976 to increase the project site to 11.84 acres and to construct a 160,000 square foot Materials Recovery Facility (MRF) and Waste Transfer Station.	Approved 10/08/08	Approximately 0.6 mile from Garnet Substation

TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
12	Wildcat 36/Orr Industrial Building #1 and #2	Major Construction	19432 Ruppert Street	City of Palm Springs	Construct two industrial buildings (10,288 square feet) in the North Palm Springs Business Center.	In Plan Check	Approximately 0.4 mile from Garnet Substation
13	Palm Springs Freeway Development	Hotel with 2 fast-food pads.	610 West Garnet Avenue	City of Palm Springs	Request for a time extension on a 2-story, 65-unit hotel with 2 fast-food pads, parking, and signage.	Approved 7/22/2009	Approximately 0.6 mile from Garnet Substation
14	Commercial Building	Major Construction	19th Avenue West of Indian Avenue	City of Palm Springs	Construct a 7,742 square foot building on a 93,499 square foot site fronting 19th Avenue west of Indian Avenue.	Approved 7/11/07	Approximately 0.6 mile from Garnet Substation
15	Noble and Company, LLC	Zone Change	63400 20th Avenue West	City of Palm Springs	Change zoning to subdivide parcel for future industrial or commercial development on approximately 98.84 acres.	In Process	Approximately 0.3 mile from Garnet Substation
16	Palm Springs International Business Park	Planned Development and Subdivision	South of Salvia Road and west of Gene Autry Trail.	City of Palm Springs	Planned Development District and Tentative Parcel Map to subdivide approximately 174 acres of 286 acres into a 69-lot business park subdivision and solar collector facility.	In Process	Approximately 0.1 mile from proposed Farrell-Garnet alignment
17	Comdyn PS, LLC	Major Construction	3130 Indian Canyon Drive North	City of Palm Springs	Construct 51 attached townhomes and associated common areas at 3130 North Indian Canyon Drive.	Public hearing on 09/09/09	Approximately 0.1 mile from Alternative 3
18	3 Unit Condominium	Major Construction	2794 Junipero Avenue	City of Palm Springs	Development of 3 Tuscan Style Condominiums on 0.24 acres.	Under Construction	Approximately 0.6 mile from Alternative 3
19	Vista San Jacinto (Formerly 32 @ Agave)	Amendment to a Planned Development District	301 Rosa Parks Road	City of Palm Springs	Amend a previously approved Planned development District to allow 73 rentals and 5 for sale residential dwellings on a 5.95 acre lot.	Approved by City Council 07/15/09	Approximately 0.1 mile from Alternative 3
20	K. Hovnanian's Palm Springs II	Planned Development	3801 Sunrise Way North	City of Palm Springs	A 177-unit, single family, residential subdivision on 46+ acres.	Under Construction	Adjacent to Alternative 2
21	Industrial Storage Building	Minor Construction	256 San Rafael Place	City of Palm Springs	A 2,520 square foot industrial storage building.	Under Construction	Approximately 0.1 mile from Alternative 3
22	Lily of the Valley Worship Center	Major Construction	200 Oasis Road	City of Palm Springs	Replace a 7,980 square foot existing church with a 15,342 square foot facility that includes a sanctuary, offices, teaching areas, and two communal areas.	Under Construction	Approximately 0.1 mile from Alternative 3

TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
23	Recycling Center	Conditional Use Permit	280 Oasis Road	City of Palm Springs	A Conditional Use Permit to allow the operation of a recycling center.	Approved 08/13/08	Approximately 0.1 mile from Alternative 3
24	Burgess Warehouses	Major Construction	3585 and 3591 Del Sol Road and 3540 and 3560 Anza Road	City of Palm Springs	Construct four 5,000 square foot warehouse/office units on 1.2 acres.	In Plan Check	Approximately 0.2 mile from Alternative 3
25	Palm Springs Gardens	Conditional Use Permit	3801 North Indian Canyon Drive	City of Palm Springs	Commercial development of a vacant 3 acre property to include drive-thru restaurants.	In Plan Check	Approximately 150 feet from Alternative 3
26	Warehouse	Major Construction	3443 Anza Road	City of Palm Springs	Construct a manufactured steel building with steel exterior siding for warehousing and long term automobile storage.	In Plan Check	Approximately 0.2 mile from Alternative 3
27	Desert Oasis Industrial Lofts	Major Construction	400 West San Rafael Road	City of Palm Springs	Construct 58 "For Sale" service and manufacturing industrial lofts with an approximate square footage of 125,000 square feet inclusive of 7 buildings.	Approved Planning Commission - 03/14/07	Approximately 0.3 mile from Alternative 3
28	Palm Springs Racquet Club	Planned Development	2743 North Indian Canyon Drive	City of Palm Springs	Final Planned Development for construction of 63 townhouses and loft building condominiums in addition to the remodeling of existing historic structures on the site of the Palm Springs Racquet Club.	Under Construction	Approximately 0.3 mile from Alternative 3
29	Single-Family Residential Subdivision	Subdivision	Northeast corner of Los Feliz and Sepulveda	City of Palm Springs	The subdivision of 0.51 acres for three single-family residences.	Plan Check, Construction Pending	Approximately 0.5 mile from Alternative 3
30	Palermo	Condominium Project with retail bordered by a golf course and high-end residential town	Northeast corner of North Indian Canyon Drive and San Rafael Drive.	City of Palm Springs	Final Planned Development for a 211 unit condominium project with 10,000 square feet of retail bordered by a golf course and high-end residential town homes.	Final Map Approved by City Council	Adjacent to Alternative 3
31	PS Avenida Caballeros-San Rafael/Murano	Residential subdivision	North of Francis Drive, south of San Rafael Drive, and east of North Avenida Caballeros	City of Palm Springs	Subdivision of 20 acres into 57 residential lots and internal streets.	Under Construction	Adjacent to Alternative 3
32	Sunny View Modern Homes	Residential development	Northeast corner of North Indian Canyon Drive and Sunny View Drive	City of Palm Springs	Construct a 30-unit, two-story, townhome project on approximately 2.12 acres.	Under Construction	Approximately 0.2 mile from Alternative 3

TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
33	Farrell Professional Village	Final Planned Development	888 Farrell Drive North	City of Palm Springs	Final Planned Development District for a 5-building project development with medical office and general office uses.	Approved Planning Commission 11/19/08	Approximately 0.7 mile from Alterative 2 UG and Alternative 3
34	Desert Water Agency Warehouse #3	Major Construction	1200 Gene Autry Trail South	City of Palm Springs	Construct a 3,600 square foot warehouse.	Pending Initial Review	Approximately 0.4 mile from Alternative 2 and Alternative 3
35	Aqua Villas #1 and #2	Major Construction	551 Vista Chino East	City of Palm Springs	Construct seven condominium townhomes with subterranean parking (Aqua Villas #2) and three condominium townhomes with subterranean parking (Aqua Villas #1).	Pending submittal of re-design fees from applicant.	Approximately 0.7 mile from Alternative 2 and Alternative 3
36	Desert Sunshine Preschool and Kindergarten	Major Construction	Sahara Drive and Desert Park Avenue	City of Palm Springs	Construct a 10,694 square foot one-story pre-school and kindergarten school.	Approved City Council - 03/05/08	Approximately 0.1 mile from Alternative 2
37	Millwood Building	Major Construction	1756 Sahara Road	City of Palm Springs	Construct two commercial buildings for medical and general office use on approximately 1.12 acres	Plan Check	Approximately 200 feet from Alternative 2
38	Sunrise Townhomes	General Plan Amendment	Southwest corner of North Sunrise Way and East Vista Chino Road	City of Palm Springs	Proposed GPA and zone change from P to R2 to develop 1.14 acres of vacant land into a gated, residential, 12-unit, two-story condominium project.	Approved; In Plan Check	Approximately 0.1 mile from Alternative 2
39	Sunrise Center	Major Construction	1445 North Sunrise Way	City of Palm Springs	Develop a detached two-story 4,000 square foot office building with an already existing property.	Pending Initial Review	Approximately 0.2 mile from Alternative 2
40	Palm Springs Classic/Escena	Residential, resort development	The southeast corner of East Vista Chino Road and North Gene Autry Trail	City of Palm Springs	Construct an 18-hole golf course, a 450-unit resort hotel or vacation ownership units, and 1,450 residential units on a 460-acre site. Extension of time for final conditions of approval.	Under Construction	Approximately 0.1 mile from Farrell Substation and adjacent to Alternative 2
41	Casa Verona	Residential Subdivision	Verona Road between Verona Road Extension on the east and the Whitewater Country Club property on the west	City of Palm Springs	The subdivision of a 6.1-acre parcel of land into 25 lots – contingent on a zone change from 0-5 to R1D.	Approved City Council	Approximately 0.3 mile from the proposed Farrell-Garnet alignment

TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
42	Parallel 8 Townhomes	Planned Development	275 and 435 Chuckwalla Road	City of Palm Springs	Construct eight two-story townhomes on individual lots with contemporary architecture and individual color treatments on 0.48 acres.	Pending Initial Review	Approximately 0.9 mile from Alternative 2 and Alternative 3
43	City of Palm Springs Animal Shelter	Major Construction	4575 Mesquite Avenue East	City of Palm Springs	Develop an animal care facility to include the holding, treatment and adoption of animals on approximately 3.0 acres.	Pending Initial Review	Approximately 0.2 mile from the Eisenhower Substation and 1.3 miles from Alternative 7
44	Office Building	Major Construction	1865 Carriage Lane (Lot 82); 1805 and 1815 East Desert Park Avenue	City of Palm Springs	Construct a single- story professional office building (2,000 square feet) with attached private parking and garage for owner's use (827 square feet)	Plan Check	Adjacent to Alternative 2
45	K. Hovnanian's Four Seasons at Palm Springs	Tentative Tract Map	4000 Sunrise Way North & Whitewater River	City of Palm Springs	Subdivide 24 acres for the development of 70 single-family residential lots.	Approved by City Council 01/18/06	Adjacent to Alternative 2
46	Williams Road Industrial Building	Major Construction	661 Williams Road	City of Palm Springs	Construct a new 10,642 square foot, four-unit, industrial service facility on 0.6 acres.	Approved Planning Commission/ In Plan Check	Approximately 0.4 mile from Eisenhower Substation
47	Desert Air Conditioning	Major Construction	Gene Autry Trail and Ramon Rd	City of Palm Springs	Add additional office space to an existing building with a new two-story addition.	Under Construction	Approximately 0.5 mile from Eisenhower Substation
48	Gene Autry Plaza	Conditional Use Permit	5001 East Ramon Road	City of Palm Springs	Develop a 6.75+ acre retail center as an extension of existing Lowe's Center sharing a common entry, consisting of 50,000+ square feet of anchor tenant buildings and one free-standing drugstore with drive through.	Under Construction	Approximately 0.5 mile from Eisenhower Substation
49	Indian Oasis Business Park	Major Construction	921 Crossley Road, at Sunny Dunes, Indian Springs, and Rio Blanco	City of Palm Springs	Develop two industrial lots into a retail and office complex of two compatible buildings with an approximate square footage of 23,500 square feet.	In Plan Check	Approximately 0.47 mile from Eisenhower Substation
50	Indian Oasis Self-Storage	Major Construction	Rio Blanco Road and Indian Springs Road	City of Palm Springs	Construct 108,005 square feet of climate-controlled storage facilities in a 1- story building on 4.8 acres.	Approved Planning Commission - 10/10/07	Approximately 0.4 mile from Eisenhower Substation

TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
51	Crosse Pointe	Planned Development	East Ramon Road and Crossley Road	City of Palm Springs	Construct four retail buildings with a central main building (Building B) having two stories, with executive office suites on the second floor on 3.78 acres (168,578 square feet).	Approved City Council - 10/03/07; 2 year extension granted 07/22/09	Approximately 0.6 mile from Eisenhower Substation
52	World Class Auto Center, LLC Sunny Dunes Business Park	Major Construction	Northeast corner of San Luis Road	City of Palm Springs	Construct 20 multi-tenant, light office/industrial buildings on 2.5 acres.	Approved - On Hold	Approximately 0.31 mile from Eisenhower Substation
53	Office Building	Major Construction	4375 Calle De Ricardo	City of Palm Springs	Construct a 6,452 square foot addition to existing office building.	Under Construction	Approximately 0.6 mile from Eisenhower Substation
54	The Springs	Commercial and retail development.	Northeast corner of East Ramon Road and South Gene Autry Trail	City of Palm Springs	Subdivision of a 37-acre parcel into 8 parcels for commercial and retail use.	Approved by City Council/Under Construction	Approximately 0.5 mile from Eisenhower Substation
55	Slurry Seal Projects	Transportation	All streets between and including San Rafael, south to Vista Chino and from Indian Canyon Drive East to Sunrise Way	City of Palm Springs	Slurry and seal of roadways	Construction scheduled for April 2010	Includes roads crossed by Alternative 2 and Alternative 3
56	CUP 07-015	Conditional Use Permit	67320 – 67270 Ramon Road	Cathedral City	Construct two commercial buildings totaling 5,660 square feet for automotive repair use.	Approved	Approximately 0.7 mile from Alternative 7 and Eisenhower
57	TTM 32558	Tentative Tract Map	Northerly terminus of San Joaquin Drive, north of San Mateo Drive	Cathedral City	Subdivide 15.64 acres into 41 single family residential lots.	Under Construction	Approximately 0.9 mile from Alternative 6 and Alternative 7
58	CUP08-006	Conditional Use Permit	67711 30th Avenue	Cathedral City	Construct a hotel located on 10.97 acres.	Building Department Plan Check	Approximately 0.2 mile from Alternative 7
59	TTM 31774	Tentative Tract Map	Approximately 125 feet east of Santoro Drive between McCallum Way and Ramon Road	Cathedral City	Construct 292 single family dwelling units and recreational amenities on 65.9 acres.	Under Construction	Approximately 0.6 mile from Alternative 7
60	CUP 06-002	Conditional Use Permit	Northwest corner of Date Palm Drive and McCallum Way	Cathedral City	Construct a 15,674 square foot Longs Drugs store with drive-through.	Approved	Adjacent to Alternative 7
61	CUP 06-008	Conditional Use Permit	Northeast corner of Date Palm Drive and McCallum Way	Cathedral City	Construct an approximately 68,685 square foot commercial development within the Uptown Village Specific Plan.	Approved	Adjacent to Alternative 7

TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
62	DR 08-001	Design Review	32165 Date Palm Drive	Cathedral City	Construct a 5,625 square foot commercial building.	Building Department Plan Check	Adjacent to Alternative 7
63	TPM 35920	Tentative Parcel Map	Southwest corner of Date Palm Drive and 30th Avenue	Cathedral City	Construct an approximately 13,969 square foot grocery market.	Approved	Adjacent to Alternative 7
64	DR 07-005	Design Review	Southwest corner of Landau Boulevard and Quijo Road	Cathedral City	Construct a 158 multi-family development.	Building Department Plan Check	Approximately 0.2 mile from Alternative 6 and Alternative 7
65	TTM 32559	Tentative Tract Map	Northwest of Avenida Quintana and Verona Road	Cathedral City	Subdivide 12.36 acres into 71 single-family residential lots.	Building Department Plan Check	Approximately 0.5 mile from Alternative 6 and Alternative 7
66	TPM 30726	Subdivision	Southwest of the intersection of Date Palm Dr. and Varner Rd.	Cathedral City	Subdivide 18.3 acres into 10 parcels for light industrial use.	Approved	Approximately 250 feet from proposed reconfiguration at Varner Road and Date Palm Drive.
67	Mary Wood- Palm Valley School	Specific Plan	35525 Da Vall Drive	City of Rancho Mirage	Approval of 3 elementary school buildings, paved and grassed areas and driveway/parking are substantially consistent with approved master Plan	Under Construction	Approximately 0.5 mile from Tamarisk Substation
68	Section 19 Specific Plan	Specific Plan	Northeast of Bob Hope Drive and Dinah Shore Drive	City of Rancho Mirage	Develop a 268 acre area northeast of the intersection of Bob Hope Drive and Dinah Shore Drive.	Under Review	Approximately 0.3 mile from proposed reconfiguration at Bob Hope and Dinah Shore Drive and approximately 0.8 mile from Alternative 5
69	Monterey Marketplace II, Phase I and Phase II	Commercial retail center	Dinah Shore Drive, east of Key Largo (APN 618-600-037).	City of Rancho Mirage	Approval of a 107,500-square-foot commercial retail center known as Monterey Marketplace II, Phase I (8 proposed buildings) and Phase II (6 proposed buildings) on 9.85 acres adjacent to the existing Monterey Marketplace Center.	Under Construction	Approximately 0.5 mile from Alternative 5 and 0.7 mile from proposed reconfiguration at Bob Hope Drive and Dinah Shore Drive
70	Stantec Consulting	Commercial Subdivision	Southeast corner of Dinah Shore Drive and Bob Hope Drive	City of Rancho Mirage	Subdivide PM 34371 (4.1 acres) into 5 commercial lots	Tentative Map Approval	Adjacent to proposed reconfiguration at Bob Hope Drive and Dinah Shore Drive
71	Versailles (Final Phase III)	Residential Development	Located at the northwest corner of Monterey and Gerald Ford.	City of Rancho Mirage	Develop (Versailles Phase III) 30.96 acres into 78 single family homes (90 lots).	Under Construction	Approximately 0.9 mile from Alternative 5

TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
72	Sares Regis Group	Residential Development	North side of Gerald Ford Drive	City of Palm Desert	Construct 320 residential condominium units on a 25-acre site on the North side of Gerald Ford Drive.	Under Construction	Approximately 0.8 mile from reconfiguration at Portola Avenue and Gerald Ford Drive
73	University Park	Subdivision	74-255 Gerald Ford Drive	City of Palm Desert	Construct 244 single-family homes on 42.2 acre site.	Approved 04/06	Approximately 0.2 mile from proposed reconfiguration at Portola Avenue and Gerald Ford Drive.
74	University Park	Subdivision	36-200 Pacific Avenue	City of Palm Desert	Tentative Tract Map for 141 single-family homes.	Approved 04/06	Approximately 0.5 mile from proposed reconfiguration at Portola Avenue and Gerald Ford Drive.
75	Desert Wells	Subdivision	Gerald Ford/Portola/Cook	City of Palm Desert	Subdivide 69.26 acres into 270 single-family lots.	Approved 03/05	Approximately 0.5 mile from proposed reconfiguration at Portola Avenue and Gerald Ford Drive.
76	Development Resources	Precise Plan	73-550 Dinah Shore Drive	City of Palm Desert	Construct a 52,164 sq ft Showroom/Warehouse building.	Approved 01/05	Approximately 0.2 mile from Alternative 5
77	Promontory Point	Precise Plan	73-650 Dinah Shore Drive	City of Palm Desert	Construct an 86,000 sq ft two-story medical/general office building with a parking structure.	Approved 08/06	Approximately 0.2 mile from Alternative 5
78	Darmon Real Estate Investments	Precise Plan	34-501 and 34-601 Spyder Circle	City of Palm Desert	Construct two contiguous industrial buildings with totaling 18,991 sq ft on a 1.12 acre site.	Approved 09/05	Approximately 0.3 mile from Alternative 5
79	Stonecrest	Precise Plan	73-500 Dinah Shore Drive	City of Palm Desert	Construct a 43,446 sq ft Office/Warehouse complex on Lot 34 of PM 24255.	Approved 12/04	Approximately 0.1 mile from Alternative 5
80	2006-019. Prest Vuksic	Precise Plan	73-665 Dinah Shore Drive	City of Palm Desert	Construct a 15,267 sq ft Industrial building including a tower element up to 34 ft in height.	Approved 12/06	Approximately 0.2 mile from Alternative 5
81	Ochoa Tire	Precise Plan	73-741 Spyder Circle	City of Palm Desert	Construct a 8,913 sq ft automotive tire facility with a tower element at 30 feet, without the tire element.	Approved 1/08	Approximately 0.3 mile from Alternative 5
82	2007-003 Auto Repair	Precise Plan	73-731 Spyder Circle	City of Palm Desert	Construct a 7,540 sq ft Auto Repair building.	Approved 03/07	Approximately 0.3 mile from Alternative 5

TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
83	Ponderosa Homes II	Subdivision	Northwest Corner of Portola Avenue and Gerald Ford Drive	City of Palm Desert	Subdivide 87.45 Acre site into 237 single-family lots. TT 31490	Under Construction	Approximately 0.2 mile from proposed reconfiguration at Portola Avenue and Gerald Ford Drive.
84	Indian Ridge Country Club	Subdivision	Country Club Drive and Eldorado Drive	City of Palm Desert	Construct 1,278 residential units with (2) 18 hole golf courses	Under Construction	Approximately 0.2 mile from Concho Substation
85	Desert Gateway	Precise Plan, Subdivision	Southeast Corner of Monterey Avenue and Dinah Shore Drive	City of Palm Desert	Subdivide 70 acres into 24 parcels and construct 689,071 square feet gross commercial.	Approved 2/03 Under construction	Approximately 0.3 mile from Alternative 5
86	Pacific Pointe	Precise Plan	34-300 Gateway Drive	City of Palm Desert	Construct seven (7) industrial buildings ranging from 5,000 – 50,000 sq ft totaling 143,942 sq ft.	Approved 04/06 Under construction	Approximately 0.4 mile from Alternative 5
87	Jewish Federation School	Conditional Use Permit, Precise Plan	36-333 Portola Avenue	City of Palm Desert	Construct a 18,166 sq ft K-6 school building in a PR-5 residential zone for the Jewish Federation of Palm Springs on a ten-acre property.	Approved 1/08	Approximately 0.4 mile from proposed reconfiguration at Portola Avenue and Gerald Ford Drive.
88	Summit	Zone Change, Subdivision	73-600 35TH Avenue	City of Palm Desert	Construct 247 residential condominium units on a 20-acre site, change of zone from SI to PR-13.	Approved 2/06 Under construction	Approximately 0.4 mile from Alternative 5
89	Caurro Homes	Subdivision	Shepherd Lane	City of Palm Desert	Subdivide 5 Acre site into 16 single-family lots	Under Construction	Approximately 0.5 mile from proposed reconfiguration at Portola Avenue and Gerald Ford Drive.
90	Portola Pointe	Subdivision	Shepherd Lane	City of Palm Desert	Subdivide 5 Acre site into 16 single-family lots.	Under Construction	Approximately 0.5 mile from proposed reconfiguration at Portola Avenue and Gerald Ford Drive.
91	Dolce Development	Subdivision	Gerald Ford Drive/Gateway Drive	City of Palm Desert	Subdivide 38.1 acre site into 159 single-family lots, 11 lots for common area, 2 lots for school district	Approved 10/04 Under Construction	Approximately 0.5 mile from proposed reconfiguration at Portola Avenue and Gerald Ford Drive.

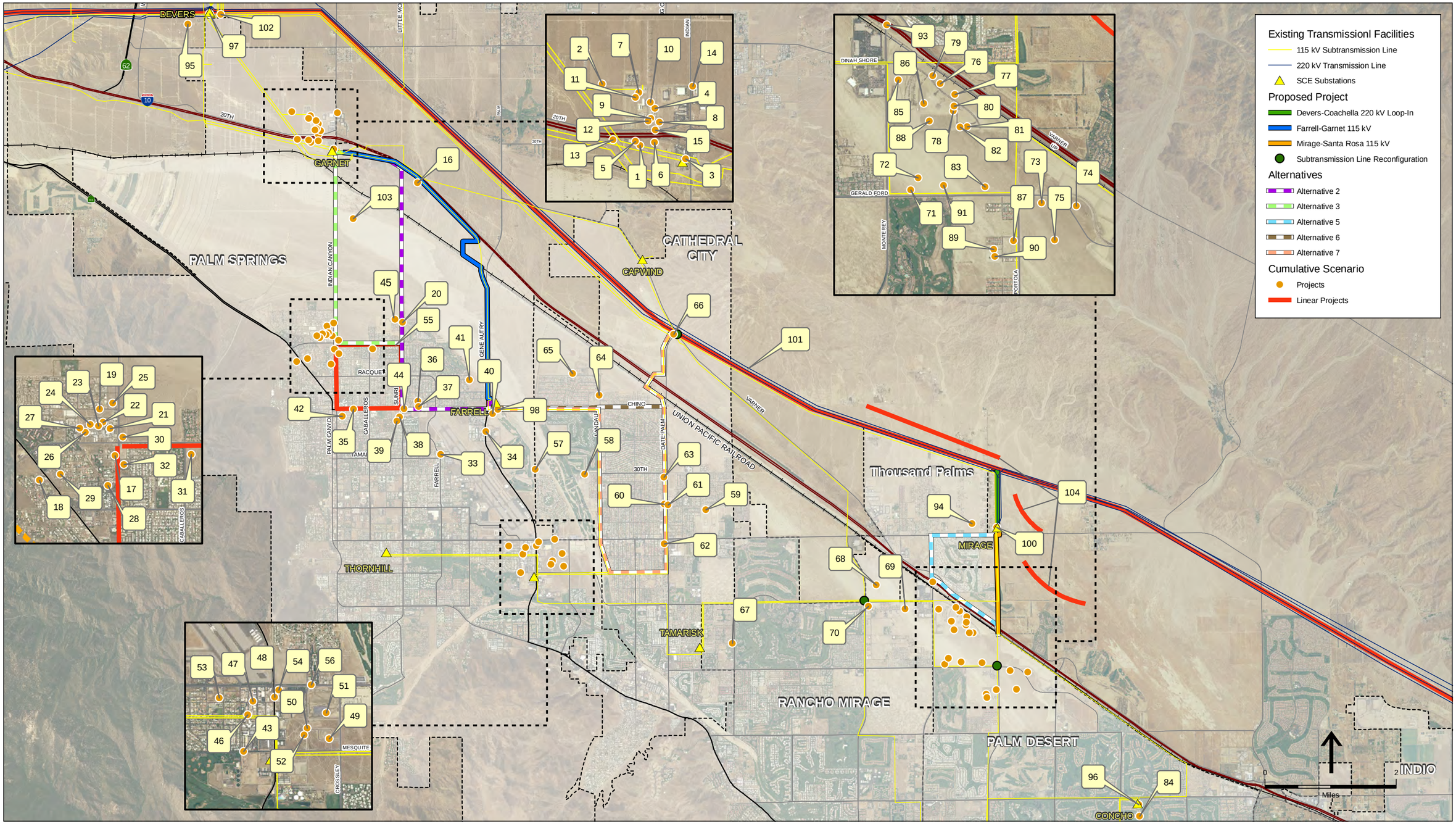
TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
92	Cardiff Limousine	Precise Plan	75-25 Sheryl Avenue	City of Palm Desert	Construct a parking lot for buses and employees, a fuel dispensing island with above-ground fuel tanks and future (Phase II) construction of a 3,322 sq ft building with 3 bays for cleaning and washing vehicles.	Approved 07/05 Under construction	Approximately 0.5 mile from Indian Wells Substation
93	Monterey Avenue I-10 Interchange Improvements	Transportation	Monterey Avenue and I-10.Portola Ave., north of Gerald Ford Drive.	City of Palm Desert	Add new westbound loop on-ramp and realign existing westbound off ramp to Varner Road.	Construction estimated to begin 7/2010 and end 8/2011	Adjacent to Alternative 5
94	TR30199	Subdivision	East of Desert Moon Drive, north of Ramon Road, West of Vista Del Sol	Riverside County	Subdivide into 144 residential and commercial lots with 7200 square foot minimum.	N/A	Approximately 0.2 mile from Alternative 5
95	CPV Sentinel Standby Energy Project	Utilities	Adjacent to Devers Substation, north of I-10, east of HWY 62	Riverside County	Competitive Power Ventures proposal for an 850- MW, gas fired. Peaking power plant.	Under CEC review.	Approximately 0.4 mile from Devers Substation
96	SCE Concho 115/12 kV Substation	Substation upgrade	Concho Substation	CPUC	SCE will add one 12 kV circuit. The new circuit will likely head west and north of the substation.	Construction expected to start on 6/1/2010.	Within the Concho Substation
97	SCE Devers 115/12 kV Substation	New Substation	Devers Substation	CPUC	SCE will construct a new substation within the current Devers Substation property with one 28 MVA transformer and two 12 kV circuits. The substation work will take place inside the existing Devers substation.	Construction expected to start on 6/1/2010.	Within the Devers Substation
98	SCE Farrell 115/12 kV Substation	Substation upgrade	Farrell Substation	CPUC	SCE will add one 28 MVA transformer and two 12 kV circuits. This bank increase will take place inside Farrell Substation. One circuit will likely head south and one circuit will likely head west.	Construction expected to be complete by the end of 2009.	Within the Farrell Substation
99	SCE Indian Wells 115/12 kV Substation	Substation upgrade	Indian Wells Substation	CPUC	SCE will add one 12 kV circuit. The new circuit will likely head west and north of the substation.	Construction expected to start on 6/1/2010.	Within the Indian Wells Substation
100	SCE Mirage 115/12 kV Substation	Substation upgrade	Mirage Substation	CPUC	SCE will construct a new substation within the Mirage Substation property with one 28 MVA transformer, two 12 kV circuits, and 4.8 MVAR of capacitors.	Construction expected to start on 6/1/2011.	Within the Mirage Substation

TABLE 3-7 (Continued)
CUMULATIVE SCENARIO – APPROVED AND PENDING PROJECTS

Figure ID	APN or Project Name	Description	Address / Location	Agency / Organization	Details	Status / Timeline	Distance from Proposed Project/ Alternatives
101	Devers-Palo Verde No. 2 (DPV2)	500 kV Transmission Line	From Harquahala Substation (in Arizona, near the Palo Verde nuclear power plant) to SCE's Devers Substation (in North Palm Springs, California).	CPUC/BLM	The CPUC is the CEQA lead agency and the U.S. Bureau of Land Management (BLM) is the lead agency under the National Environmental Policy Act (NEPA). The DPV2 Project as proposed by SCE includes a new 230-mile 500 kV line.	CPUC approved the project in January 2007; BLM has yet to issue a Notice of Approval for the project.	Adjacent to the Devers Substation, the proposed Varner Road and Date Palm Drive reconfiguration; and the north end of the proposed Devers-Coachella Valley 220 kV Loop-In.
102	Green Path North Transmission Project (GPN)	500 kV Transmission Line	GPN is a proposed 500 kV electrical transmission system from Riverside County to the Los Angeles area designed to access potential geothermal, solar, and wind projects in the Imperial Valley.	City of Los Angeles Department of Water and Power	The proposed transmission system would connect a new electrical substation near the existing Lugo Substation in Hesperia with a new substation to be built near the existing Devers Substation, tentatively called Devers II, near Palm Springs. The proposed alignment has not yet been determined.	Under review	A new substation associated with GPN may be located adjacent to the Devers Substation
103	Garnet Mine Site	Reclamation	East of Indian Canyon, south of the So. Pacific Railroad.	Coachella Valley Water District	Reclamation work including the removal of soil stockpiles and scattered concrete debris.	N/A	Approximately 0.3 mile from Alternative 3
104	USACE Whitewater River Basin Thousand Palms Flood Control Project	Flood control project	Thousand Palms area	USACE	Removal of 2,800 acres of land and over 9,600 residents from an alluvial floodplain in the Thousand Palms area to protect against flooding and to preserve a long-term sand supply for the Coachella Valley Fringe-toed Lizard.	Approved	Within 1 mile of the proposed 220 kV Devers-Coachella Valley Loop-In, the proposed Mirage-Santa Rosa Alignment, and Mirage Substation

SOURCES: Cathedral City, 2009; Palm Desert, 2009a, 2009b and 2009c; Palm Springs, 2009a and 2009b; City of Rancho Mirage, 2009; CVWD, 2008; Riverside County, 2008; and SCE, 2008.



SOURCE: SCE, 2008; NAIP, 2005

Figure 3-6
Cumulative Projects

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3.7 References

California Energy Commission (CEC) 2007. Distributed Generation and Cogeneration Policy Road Map for California, Staff Report. March 2007. Publication number 500-2007-021.

California Energy Commission (CEC), 2003. Renewable Resources Development Report. Commission Report, November 2003. Publication number 500-03-080F.

California Public Utilities Commission (CPUC). 2008. Draft Environmental Impact Report for the El Casco Systems EIR. December 12, 2007.

City of Cathedral City. 2009. *Project Status Report*, Planning Department. July 16, 2009.

City of Palm Desert. 2009a. *Non-Residential Projects List*. February, 2009.

City of Palm Desert. 2009b. *Non-Residential Projects List*. February, 2009.

City of Palm Desert. 2009c. *Current Capital Improvement Projects*, webpage (http://www.cityofpalmdesert.org/Index.aspx?page=201), accessed August 17, 2009.

City of Palm Springs. 2009a. *Development Projects Update*, Department of Planning Services August 6, 2009.

City of Palm Springs. 2009b. Roadway Improvements and Maintenance webpage (http://www.palmsprings-ca.gov/index.aspx?page=716), Accessed August 18, 2009.

City of Rancho Mirage. 2009. *Development Activity Summary*, Community Development Department. June 15, 2009.

Coachella Valley Water District (CVWD). 2008. *Capital Improvement Budget, Fiscal Year 2008-2009*, Adopted June 24, 2008.

National Agricultural Imagery Program (NAIP), 2005. Maintained for the U.S. Department of Agriculture, 2005.

Riverside County. 2008. Transportation and Land Management Agency. Online services webpage (http://www.rctlma.org/online/default.aspx) Accessed June 5, 2008.

Southern California Edison (SCE), 2008. *Proponent's Environmental Assessment for the Devers-Mirage 115 kV Subtransmission System Split Project*, January 31, 2008.

CHAPTER 4
Environmental Analysis

Introduction to Environmental Analysis

This chapter provides discussion and full public disclosure of the significant environmental impacts of the Proposed Project and alternatives, including the No Project Alternative. This chapter examines the potential environmental impacts associated with the Proposed Project and alternatives as they relate to the following 16 areas of environmental analysis:

4.1 Aesthetics	4.9 Land Use, Planning and Policies
4.2 Agriculture Resources	4.10 Mineral Resources
4.3 Air Quality	4.11 Noise
4.4 Biological Resources	4.12 Population and Housing
4.5 Cultural Resources	4.13 Public Services
4.6 Geology and Soils	4.14 Recreation
4.7 Hazards and Hazardous Materials	4.15 Transportation and Traffic
4.8 Hydrology and Water Quality	4.16 Utilities and Service Systems

Analysis within each issue area includes consideration of the following components of the Proposed Project:

- Removal of 138 single-circuit wood poles between the Farrell and Garnet Substations and installation of approximately 15 tubular steel poles (TSPs) and 142 double-circuit light-weight steel (LWS) poles within existing SCE ROW with the exception of a 0.8-mile segment north of UPRR that would be constructed within new SCE ROW. For the existing circuit, transfer 5.3 miles of existing conductor and install 0.5 mile of new conductor on new double-circuit poles. To create the new Farrell-Garnet 115 kV subtransmission line, install 5.8 miles of new conductor on new double-circuit poles;

- Removal of 29 wood poles south of the Mirage Substation and installation of approximately seven TSPs, approximately 37 double-circuit LWS poles, and approximately 11 wood poles with existing SCE ROW to support the reconfigured Mirage-Concho 115 kV subtransmission line, the reconfigured Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line, and the new Mirage-Santa Rosa 115 kV subtransmission line;

- Removal of four lattice steel towers (LSTs) and installation of six new double-circuit LSTs and two new single-circuit LSTs between the Devers-Coachella Valley 220 kV

transmission line and the Mirage Substation to support the new Devers-Mirage No. 1 and Devers Mirage No. 2 220 kV transmission lines;

- Replacement of existing four poles with seven new poles at the intersection of Bob Hope Drive and Dinah Shore Drive;
- Replacement of one wood pole with a new double-circuit TPS at the intersection of Portola Avenue and Gerald Ford Drive;
- Replacement of six wood poles with one new TSP and four wood poles at the intersection of Date Palm Drive and Varner Road;
- Installation of a new 280 megavolt amperes (MVA) 200/115 kV transformer, five new 220 kV circuit breakers, and five new 115 kV circuit breakers at the Mirage Substation; and
- Installation of additional electrical and communications equipment and relays at the Mirage, Devers, Concho**,** Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk substations and the Edom Hill Communication Site.

Within each of the environmental areas listed above, the discussion of project impacts is provided in the following format:

- Environmental Setting
- Regulatory Setting (i.e., applicable regulations, plans, and standards)
- Significance Criteria
- Applicant Proposed Measures
- Environmental Impacts and Mitigation Measures for the Proposed Project
- Cumulative Impacts for the Proposed Project
- Environmental Impacts and Mitigation Measures for the alternatives including the No Project Alternative

In addition to the No Project Alternative, the following alternatives are fully analyzed in this EIR (refer to Chapter 3 for a description of each alternative):

- Alternative 2
- Alternative 3
- Alternative 5
- Alternative 6
- Alternative 7

Each environmental issue area analyzed in this document provides background information and describes the environmental setting (baseline conditions) to help the reader understand the conditions that would cause an impact to occur. In addition, each section describes how an impact is determined to be “significant” or “less than significant”. Finally, the individual sections recommend mitigation measures, where appropriate, to reduce significant impacts. Throughout

Chapter 4, both impacts and the corresponding mitigation measures are identified by a bold letter-number designation (e.g., **Impact 4.1-1** and **Mitigation Measure 4.1-1a**).

In performing the analysis for this EIR, the EIR preparers relied on available published studies and reports and conducted independent investigations as needed. Information provided by SCE in its application and accompanying environmental documentation was also considered in the EIR analysis after independent review and assessment by the EIR preparers. The specific documents considered and relied upon are cited for each issue area in Sections 4.1 through 4.16.

Environmental Assessment Methodology

Environmental Baseline

The analysis of each issue area begins with an examination of the existing physical setting (baseline conditions as determined pursuant to section 15125(a) of the State CEQA Guidelines) that may be affected by the Proposed Project and alternatives. The effects of the Proposed Project and alternatives are defined as changes to the environmental setting that are attributable to project components or operation. Pursuant to CEQA Guidelines (Section 15125[a]), the environmental setting used to determine the impacts associated with the Proposed Project and alternatives is based on the environmental conditions that existed in the study area in April 2008 at the time the Notice of Preparation was published.

Impact Significance Criteria

Significance criteria are identified for each environmental issue area. The significance criteria serve as benchmarks for determining if a component action would result in a significant adverse environmental impact when evaluated against the baseline. According to the State CEQA Guidelines section 15382, a significant effect on the environment means "…a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project…"

Environmental Consequences

The EIR evaluates the environmental consequences and potential impacts that the Proposed Project and the alternatives would create. The impacts identified were compared with predetermined, specific significance criteria, and were classified according to significance categories listed in each issue area. The same methodology was applied systematically to each alternative. The cumulative impacts of the Proposed Project taken together with the related cumulative projects (listed in Section 3.6) were assessed, and mitigation measures for each impact were identified, if applicable. The focus in the cumulative impact analyses was to identify those project impacts that might not be significant when considered alone, but contribute to a significant impact when viewed in conjunction with past, current, and reasonably foreseeable future projects. A comparative analysis of the Proposed Project and the alternatives is provided in Chapter 5 of this document.

Impact Analysis

The EIR evaluates the potential environmental impacts that the Proposed Project and alternatives would create. Impacts are classified as:

Class I: Significant; cannot be mitigated to a level that is less than significant

Class II: Significant; can be mitigated to a level that is less than significant

Class III: Less than significant, no mitigation required

Class IV: Beneficial impact

No Impact: No impact identified.

When significant impacts are identified, feasible mitigation measures are formulated to eliminate or reduce the intensity of the impacts and focus on the protection of sensitive resources. The effectiveness of a mitigation measure is subsequently determined by evaluating the impact remaining after its application. Those impacts meeting or exceeding the impact significance criteria after mitigation are considered residual impacts that remain significant (Class I). Implementation of more than one mitigation measure may be needed to reduce an impact below a level of significance. The mitigation measures recommended in this document are identified within each issue area section (Sections 4.1 through 4.16) and are presented in the Mitigation Monitoring, Reporting, and Compliance Program in Chapter 8 of this document.

Cumulative Projects Impact Analysis

Section 6.4 presents the cumulative impact scenario. The focus in the cumulative impact analysis was to identify those project impacts that might not be significant when considered alone, but may contribute to a significant impact when viewed in conjunction with past, current, and reasonably foreseeable future projects.

Impacts of Alternatives

Chapter 3 provides a list, description, and maps that identify alternatives to the Proposed Project. Each issue area section (Sections 4.1 through 4.16) presents the impact analysis for each alternative, while Chapter 5 provides a summary of the collective impacts of each alternative in comparison with the impacts of the Proposed Project.

4.1 Aesthetics

This section describes the visual resources in the vicinity of the Proposed Project and alternatives and the associated regulatory framework. The impact analysis presents the significance criteria used to evaluate impacts on identified resources as a consequence of implementing the Proposed Project or alternatives, the methods used in evaluating these impacts, and the results of the impact assessment based on the applied significance criteria.

4.1.1 Setting

The study area for visual resources encompasses the landscapes directly affected by facilities proposed under each of the project alternatives and the surrounding areas that would be within view of the project components. The visual analysis focuses on travel route views, and parks and recreational views.

Regional Setting

Located in eastern Riverside County, the Proposed Project and alternatives are situated within a generally level or slightly rolling desert terrain in western Coachella Valley. Views are typically panoramic in scale, encompassing large horizontal expanses of desert with minimal vegetation or distinguishing terrain. Vegetation is minimal, scattered and low-growing, seldom reaching more than five feet in height. The coloration of the vegetation is closely associated with desert tans and greens. Streams in the region are ephemeral, running only during periods of rain. Mountain ranges surrounding and encompassing the Coachella Valley cities and desert floor provide the visual backdrop to the study area. Coachella Valley is bounded by the Little San Bernardino Mountains to the northeast and the San Jacinto and Santa Rosa mountain ranges to the southwest. These mountains provide a backdrop for most views in the area. From the study area, the color of these mountains appear blue – an effect of distance and aerial perspective.

Within this regional setting, the viewshed of the study area is generally extensive given the relative openness of much of the landscape, the height of the proposed infrastructure, and the availability of viewing opportunities from travel routes (e.g., Interstate 10 (I-10), State highways, and local roads), recreational use areas (e.g., golf courses), and nearby residential areas. The local visual setting for the Proposed Project and alternatives is described below.

Local Setting

As noted above, the Proposed Project and alternatives are located within western Coachella Valley, which includes the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, and portions of unincorporated Riverside County, including the community of Thousand Palms. This area has sustained continued growth for the past 30 years. The area is characterized by a mix of uses including residential, commercial, and industrial development, open space, and generous oasis-like landscaping. Remnants of natural desert remain in Coachella Valley, although they tend to be highly disturbed. The Coachella Valley is noted for its mid-

century modern architecture, with the post-and-beam architectural style prevalent throughout the Coachella Valley area. This style features low-pitched roofs, wide eaves, open-beamed ceilings, and floor-to-ceiling windows.

Public Roadways in the Study Area

The regional and local roadways described below comprise the primary corridors from which the Proposed Project and alternatives would be visible to the public. Views observed from these thoroughfares can shape an individual's impression of an area. Therefore, these roadways can be key vantage points from which to view the study area. Views from several of the study area's major arterial roadways are described below. The descriptions are intended to provide a generalized characterization of aesthetic quality along those sections of roadways that would potentially be affected by construction and operation of the Proposed Project and alternatives. Roadway details pertaining to other facets of the potentially affected environment (e.g., traffic, safety, noise, etc.) are discussed within the corresponding chapters.

Federal and State Highways

Interstate 10. I-10 is a northwest-southeast freeway traversing the northern portion of the study area. To the west, I-10 continues through Riverside and San Bernardino Counties and is the link to the greater Los Angeles area. To the east, I-10 continues through the Mojave Desert toward the California/Arizona border and Phoenix, Arizona. In the vicinity of the study area, the freeway is comprised of either three or four general-purpose lanes in each direction. Furthermore, I-10 is a Riverside County eligible scenic highway in the study area.

State Route 111. State Route 111 (SR 111), a State-eligible Scenic Highway, runs generally in a southeast direction through the Coachella Valley from Palm Springs in the northwest to Brawley in the southeast. It is an important travel corridor within the study area. The majority of the roadway provides views of the San Jacinto and Santa Rosa Mountains. Foreground views from SR 111 include residential, commercial, and industrial development, as well as open space. Views of the Proposed Project from SR 111 would be somewhat limited, but would include a small portion of the proposed Farrell-Garnet 115 kV subtransmission line northwest of the intersection of Gene Autry Trail and SR 111 (also designated as Vista Chino in the City of Palm Springs). The subtransmission line for Alternatives 2 and 3 would be located along the portion of SR 111 that follows Vista Chino; however, given that these alternatives would be located underground within this area, they would not be visible from SR 111. The subtransmission line for Alternatives 6 or 7 would be visible from the portion of SR 111 along Vista Chino just before it heads south along Gene Autry Trail. SR 111 is also a locally designated scenic corridor by the Western Coachella Valley Area Plan (WCVAP) (see *Regulatory Context*, below, for more information regarding the WCVAP).

Local Major Roadways

Vista de Oro. Vista de Oro is an existing unimproved (dirt) access road on the eastern edge of the community of Thousand Palms. In general, views from this roadway include single-family homes to the west and vacant desert land to the east, as well as distant views of mountains. Views

also include existing electrical infrastructure, including several subtransmission and transmission lines and the Mirage Substation. The proposed Devers-Coachella Valley 220 kV Loop-In and the Mirage-Santa Rosa 115 kV subtransmission line would be visible from Vista de Oro. Additionally, the riser pole used at the end of the underground portion of Alternative 5 would be visible from Vista de Oro.

Portola Avenue. Portola Avenue is an existing north-south roadway in the City of Palm Desert, running from I-10 to the Whitewater River. Views from Portola Avenue generally include gated resort developments that have walls bordering the roadway. Views of residential developments are generally limited to the uppermost portion of the homes adjacent to the walls. The majority of the roadway includes distant mountain views. The proposed Portola Avenue and Gerald Ford Drive 115 kV reconfiguration would be visible from this roadway.

Gerald Ford Drive. Gerald Ford Drive is an existing east-west roadway in the cities of Cathedral City, Rancho Mirage, and Palm Desert. On the west, Gerald Ford Drive terminates at Date Palm Drive in the City of Cathedral City, and to the east this roadway continues east of Cook Street and turns south to terminate at Frank Sinatra Drive in the City of Palm Desert. Views from this roadway include residential, commercial, and industrial development, as well as open space. The proposed Portola Avenue and Gerald Ford Drive 115 kV reconfiguration would be visible from this roadway.

Dinah Shore Drive. Dinah Shore Drive is an east-west roadway in the cities of Palm Springs, Cathedral City, Rancho Mirage, and Palm Desert. Near the intersection of Dinah Shore Drive and Bob Hope Drive, views from this roadway generally include vacant desert land to the north and resort developments to the south. Travelers on this roadway would have views of the proposed Dinah Shore Drive and Bob Hope Drive 115 kV reconfiguration.

Bob Hope Drive. Bob Hope Drive is a north-south roadway in unincorporated Riverside County and the City of Rancho Mirage. Bob Hope Drive, between I-10 and the City of Rancho Mirage limits (at the intersection of Dinah Shore Drive), is a locally designated scenic corridor by the WCVAP, as a primary “gateway” to the City of Rancho Mirage (City of Rancho Mirage, 2005). The proposed Dinah Shore Drive and Bob Hope Drive 115 kV reconfiguration would be visible from this roadway.

Gene Autry Trail. Gene Autry Trail serves as a primary north-south corridor, connecting I-10 in the north with East Palm Canyon Drive/SR 111 in the south. In the vicinity of the study area, views from Gene Autry Trail generally include vacant desert land, as well as distant views of the San Jacinto, Santa Rosa, and Little San Bernardino Mountains. A portion of Gene Autry Trail, from I-10 south approximately two miles, is a City of Palm Springs Scenic Corridor. Approximately 2.5 miles of the proposed Farrell-Garnet 115 kV subtransmission line would be visible from this roadway. Additionally, a portion of the subtransmission line for Alternatives 6 or 7 heading east of the Farrell Substation would be visible from this roadway.

Scenic Resources

Scenic Highways

The California Department of Transportation (Caltrans) administers the California Scenic Highway Program (Streets and Highways Code, Section 260 et. Seq.) to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. A highway may be designated scenic depending upon the amount of the natural landscape that can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. There are no officially designated California scenic highways or roadways in the study area; however, SR 111 is "eligible" for a State scenic highway designation (Caltrans, 2008). There is one designated scenic highway in western Coachella Valley, SR 62; however, the Proposed Project and alternative components would not be visible from this highway. I-10 is "eligible" for a County scenic highway designation (Riverside County, 2003).

Open Space and Recreation

The expansive open space through which Proposed Project and alternative subtransmission lines would traverse is the cornerstone of the study area's visual resources. Views of desert and surrounding mountains capture the observer's attention and provide a visual relief from urbanization and are considered a scenic border. Major open space features in the study area include the San Jacinto and Santa Rosa mountain ranges, located to the southwest of the study area, and the Little San Bernardino Mountains located to the northeast of the study area.

The Alternative 3 subtransmission line would likely be visible from Desert Highland Park along West Tramview Road given the relatively unobstructed line of sight between the park and the alignment. In addition to public parks, a majority of the built environment in the Coachella Valley consists of resort developments, with over 200 golf courses blanketing the Coachella Valley area. The Proposed Project would be visible from three golf courses, including the Palm Springs Country Club Golf Course, the Tri-Palm Golf Course, and the Mission Hill Pete Dye Golf Course. The subtransmission line for Alternatives 6 or 7 would be visible from the Desert Princess Country Club Golf Course. Additionally, Alternative 7 would be visible from the Mesquite Country Club Golf Course. As with the Proposed Project, the Alternative 5 subtransmission line would be visible from the Tri-Palm Golf Course.

Regulatory Setting

State

California Public Utilities Commission

California Public Utilities Code Section 320 requires that all new or relocated electric and communication distribution facilities within 1,000 feet of an officially-designated scenic highway and visible from that highway be buried underground where feasible and not inconsistent with

sound environmental planning. GO 131-D defines distribution as "…a line designed to operate under 50kV".[1]

California Department of Transportation

Caltrans has a State scenic highways program to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways (Sections 260 et seq. of the California Streets and Highways Code). The State scenic highway system includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code. The program entails the regulation of land use and density of development, attention to the design of sites and structures, attention to and control of signage, landscaping, and grading, and the undergrounding of utility lines within the view corridor of designated scenic roadways. The local jurisdiction is responsible for adopting and implementing such regulation. No portion of the existing subtransmission and transmission lines are visible from a designated State scenic highway.

Local

Riverside County General Plan

The Riverside County General Plan's Land Use Element, Circulation Element, and Multipurpose Open Space Element provide the following policies that would be applicable to the Proposed Project and alternatives (Riverside County, 2003).

> *Land Use Element*
>
> *Policy LU 8.1:* Provide for permanent preservation of open space lands that contain important natural resources, hazards, water features, watercourses, and scenic and recreational values.
>
> *Policy LU 13.1:* Preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public.
>
> *Policy LU 13.3:* Ensure that the design and appearance of new landscaping, structures, equipment, signs, or grading within Designated and Eligible State and County scenic highway corridors are compatible with the surrounding scenic setting or environment.
>
> *Policy LU 13.4*: Maintain at least a 50-foot setback from the edge of the right-of-way for new development adjacent to Designated and Eligible State and County Scenic Highways.
>
> *Policy 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.
>
> *Policy LU 13.8:* Avoid the blocking of public views by solid walls.

[1] The CPUC has implemented PU Code §320 via Tariff Rule 20. While Tariff Rule 20 does not disallow the funding of undergrounding transmission lines, the specific mandate of PU Code §320 is limited to distribution lines. (CPUC, D.85497.)

Policy LU 25.5: Require that public facilities be designed to consider their surroundings and visually enhance, not degrade, the character of the surrounding area.

Circulation Element

Policy C 19.1: Preserve scenic routes that have exceptional or unique visual features in accordance with Caltrans' Scenic Highways Plan.

Multipurpose Open Space Element

Policy OS 21.1: Identify and conserve the skylines, view corridors, and outstanding scenic vistas within Riverside County.

Policy OS 22.1: Design developments within designated scenic highway corridors to balance the objectives of maintaining scenic resources with accommodating compatible land uses.

Policy OS 22.3: Encourage joint efforts among federal, state, and County agencies, and citizen groups to ensure compatible development within scenic corridors.

Western Coachella Valley Area Plan

The Western Coachella Valley Area Plan (WCVAP) provides the following policies that would be applicable to the Proposed Project and alternatives (Riverside County, 2003).

Policy WCVAP 12.4: Require the screening and/or landscaping of outdoor storage areas, such as contractor storage yards and similar uses.

Policy WCVAP 15.1: Where outdoor lighting is proposed, require the inclusion of outdoor lighting features that would minimize the effects on the nighttime sky and wildlife habitat areas.

Policy WCVAP 15.2: Adhere to the lighting requirements of the County Ordinance Regulating Light Pollution for standards that are intended to limit light leakage and spillage that may interfere with the operations of the Palomar Observatory.

Policy WCVAP 18.1: Protect the scenic highways in the Western Coachella Valley from change that would diminish the aesthetic value of adjacent properties in accordance with policies in the Scenic Corridors sections of the Land Use, Multipurpose Open Space, and Circulation Elements.

City of Palm Springs General Plan

The City of Palm Springs General Plan's Community Design Element and Circulation Element provide the following goals and policies that would be applicable to the Proposed Project and alternatives (City of Palm Springs, 2007).

Community Design Element

Goal CD14: Ensure that appealing and attractive walls and fencing add to the visual quality of the City's landscapes.

Policy CD14.8: Enhance the visual appearance of utility enclosure fencing with the addition of landscaping.

Goal CD25: Recognize, preserve, and enhance the aesthetic value of the City's hillsides, mountains, canyons, and natural terrain.

Policy CD25.2: Preserve scenic views along primary corridors in the Chino Cone and along Highway 111.

Policy CD25.3: Require that all land uses and future development proposals respect and protect the scenic values of the desert and mountain terrain.

Goal CD26: Preserve and enhance view corridors.

Goal CD26.1: Preserve and enhance view corridors by undergrounding and screening utility lines and facilities.

Goal CD33: Create a visually distinctive and attractive entry to Palm Springs along the I-10 corridor that reflects high-quality architecture and design of Palm Springs.

Policy CD33.4: Buffer unattractive uses with landscaping and walls.

Circulation Element

Policy CR10.3: Encourage the shared use of major transmission corridors and other appropriate measures to minimize the impact on the aesthetic appearance of the City.

City of Cathedral City General Plan

The City of Cathedral City General Plan's Land Use Element, Community Image and Urban Design Element, Energy and Mineral Resources Element, Water, Sewer and Utilities Element, and Public Buildings and Facilities Element provide the following goals, policies, and program that would be applicable to the Proposed Project and alternatives (City of Cathedral City, 2002).

Land Use Element

Goal 2: Preservation and enhancement of the City as a balanced mix of built and natural environments that contribute to the overall quality of life for its citizens and visitors, while preserving scenic resources of the desert and mountains.

Community Image and Urban Design Element

Policy 5: Areas of special interest, including entry points, landmarks, and scenic highway viewsheds, shall receive appropriate treatment whether part of public or private development proposals.

Policy 6: Native desert landscape materials and site-sensitive architectural designs shall be incorporated into all public and private building projects to enhance the cohesion between the natural and built environments.

Policy 12: In an effort to preserve the value of the community's night sky, outdoor lighting shall be shielded downward and limited to the minimum height, number, and intensity of fixtures needed to provide sufficient security and identification on residential, commercial, and other development.

Policy 15: Overhead utility lines shall be undergrounded to the greatest extent practical through the establishment of an undergrounding program and guidelines.

Energy and Mineral Resources Element

Program 7.A: Evaluate noise, safety, and visual impacts associated with energy production facilities, and require acoustical or other special studies as necessary to develop mitigation programs to reduce significant impacts.

Water, Sewer and Utilities Element

Policy 6: Major utility facilities, such as well sites and substations, shall be designed and sited to minimize environmental and visual impacts.

Policy 7: Utility lines shall be undergrounded, to the greatest extent practical. Those on major streets and scenic roadways shall have primary consideration for undergrounding.

Public Buildings and Facilities

Goal 2: Public buildings and facilities with optimal functionality, while being compatible with surrounding land uses and aesthetically integrated into the City's built and natural environments.

City of Rancho Mirage General Plan

The City of Ranch Mirage General Plan's Community Design Element provides the following goal, policies, and program that would be applicable to the Proposed Project and alternatives (City of Rancho Mirage, 2005).

Goal 1: Scenic roadways that impart a sense of place and are attractively landscaped, provide visual continuity along adjacent uses, preserve views, and create focused intersection landscaping.

Policy 1: The City shall develop and maintain high-quality roadways that frame views, buffer surrounding residential development, and enhance commercial uses.

Policy 3: View corridors shall be preserved through streetscape improvements and specialized design standards.

Program 3.C: Underground utilities whenever possible and adopt lighting standards that create the minimum visual impact without compromising safety.

City of Palm Desert General Plan

The City of Palm Desert General Plan's Community Design Element provides the following policies and program that would be applicable to the Proposed Project and alternatives (City of Palm Desert, 2004).

Policy 8: Areas of special interest, including entry points, scenic roadway viewsheds and community landmarks shall receive appropriate treatment whether part of public or private development proposals.

Policy 16: Overhead utility lines shall be undergrounded to the greatest extent practical through the establishment of an under grounding program and guidelines.

Policy 17: Public utility facilities, including electric power substations, domestic water and irrigation wells, switching and control facilities shall be screened, landscaped and/or

otherwise obscured and integrated into the surrounding environment to limit their adverse aesthetic impact.

Program 17.A: The City shall confer and coordinate with the various utility providers with facilities in the City and shall jointly develop screening and other strategies to reduce the adverse effects of these facilities on the appearance of the community.

City of Indian Wells General Plan

The City of Indian Wells General Plan's Land Use Element and Conservation and Open Space Element provide the following goal and policy that would be applicable to the Proposed Project and alternatives (City of Indian Wells, 1999).

Land Use Element

Policy IIA1.12: Require development to utilize low intensity and/or screening to minimize light spillover and glare.

Conservation and Open Space Element

Goal IIIAI: Conservation of open space areas for a balance of recreation, scenic enjoyment, and protection of natural resources and features.

4.1.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, significant aesthetic effects on the environment include substantial, demonstrable negative aesthetic effects, conflicts with adopted environmental plans and goals of the community, substantial degradation of scenic vistas or highways, and/or the creation of light and glare.

Using the criteria above, this analysis evaluates the impact of implementation of the Proposed Project on the visual character of the study area. The evaluation of potential impacts is based on the potential to change the visual character of the area under implementation of the Proposed Project:

a) Have a substantial adverse effect on a scenic vista;

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway corridor;

c) Substantially degrade the existing visual character or quality of the site and its surroundings;

d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

Definition and Use of Significance Criteria

An adverse visual impact may occur when: (1) an action perceptibly changes the existing physical features of the landscape that are characteristic of the region or locale; (2) an action introduces new features to the physical landscape that are perceptibly uncharacteristic of the region or locale, or

become visually dominant in the viewshed; or (3) an action blocks or totally obscures aesthetic features of the landscape. The degree of visual impact depends on how noticeable the adverse change is. The key factors in determining the degree of visual change are visual contrast, project dominance, and view blockage.

Visual Contrast

Visual contrast is a measure of the degree of change in line, form, color, and texture that the project would create, when compared to the existing landscape. Visual contrast ranges from none to strong, and is defined as:

- **None** –The element contrast is not visible or perceived
- **Weak** –The element contrast can be seen but does not attract attention
- **Moderate** –The element contrast begins to attract attention and begins to dominate the characteristic landscape
- **Strong** – The element contrast demands the viewer's attention and cannot be overlooked

Project Dominance

Visual dominance is a measure of a project feature's apparent size relative to other visible landscape features in the viewshed, or seen area. A feature's dominance is affected by its relative location in the viewshed and the distance between the viewer and feature. The level of dominance can range from subordinate to dominant.

View Blockage or Impairment

View blockage or impairment is a measure of the degree to which project features would obstruct or block views to aesthetic features due to the project's position and/or scale. Blockage of aesthetic landscape features or views can cause adverse visual impacts, particularly in instances where scenic or view orientations are important to the use, value, or function of the land use.

Overall Adverse Visual Impact

Overall adverse visual impact reflects the composite visual changes to both the directly affected landscape and from sensitive viewing locations. The visual impact levels referenced in this EIR indicate the relative degree of overall change to the visual environment that the Proposed Project would create, considering visual sensitivity, visual contrast, view blockage, and project dominance.

In general, the determination of impact significance is based on combined factors of visual sensitivity and the degree of visual change that the Proposed Project would cause. The inter-relationship of these two overall factors in determining whether adverse visual impacts would be significant is shown in Table 4.1-1.

TABLE 4.1-1
GUIDELINES FOR DETERMINING ADVERSE VISUAL IMPACT SIGNIFICANCE

	Overall Visual Change				
Overall Visual Sensitivity	**Low**	**Low to Moderate**	**Moderate**	**Moderate to High**	**High**
Low	Not Significant	Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant
Low to Moderate	Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant
Moderate	Adverse, but Not Significant	Adverse, but Not Significant	Adverse, but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant
Moderate to High	Adverse, but Not Significant	Adverse, but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant	Significant
High	Adverse, but Not Significant	Adverse and Potentially Significant	Adverse and Potentially Significant	Significant	Significant

Not Significant impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.

Adverse but Not Significant Impacts are perceived as negative but do not exceed environmental thresholds.

Adverse and Potentially Significant Impacts are perceived as negative and may exceed environmental thresholds depending on project- and site-specific circumstances.

Significant impacts with feasible mitigation may be reduced to less than significant levels or avoided all together. Without mitigation or avoidance measures, significant impacts would exceed environmental thresholds.

Visual Simulations

Visual simulations, presented as part of this aesthetic analysis, illustrate representative "before" and "after" visual conditions in the study area. In the text below, the evaluation of potential impacts associated with the Proposed Project and alternatives are based, in part, on comparing the "before" and "after" visual conditions as portrayed in the set of simulations and assessing the degree of visual change that the Proposed Project and alternatives would bring about. The significance determination is based on the evaluation criteria described above.

The simulations presented in this section illustrate the location, scale, and conceptual appearance of the Proposed Project and alternatives as seen from 19 key viewing locations. Figure 4.1-1 depicts the simulation photo viewpoint locations for the visual simulations in Figures 4.1-2 through 4.1-20. The set of images shows four views of the proposed Farrell-Garnet 115 kV subtransmission line (Figures 4.1-2 through 4.1-5), a view of the proposed Mirage-Santa Rosa subtransmission line (Figure 4.1-6), two views of the proposed Devers-Coachella Valley 220 kV Loop-In, (Figures 4.1-7 and 4.1-8), as well as views for each of the 115 kV reconfigurations at Date Palm Drive and Varner Road, Bob Hope Drive and Dinah Shore, and Portola Avenue and Gerald Ford Drive (Figures 4.1-9, 4.1-10, and 4.1-11, respectively). The images also include one view of Alternative 2 (Figure 4.1-12), two views of Alternative 3 (Figures 4.1-13 and 4.1-14), a

view of Alternative 5 (Figure 4.1-15), two views of Alternative 6 (Figures 4.1-16 and 4.1-17), and four views of Alternative 7 (Figure 4.1-17 through 4.1-20).

The simulations were produced by the project Applicant. These visual simulations are presented in color, two images per page with the existing visual condition photograph on top of the page with a photo rendering visual simulation depicting the Proposed Project or alternatives on the bottom of the page. These images were photographed in November 2006 (Figures 4.1-4 and 4.1-5), March 2007 (Figure 4.1-6), June 2007 (Figures 4.1-9 through 4.1-11), August 2007 (Figures 4.1-7 and 4.1-8), March 2008 (Figures 4.1-13 and 4.1-15), and June 2009 (Figures 4.1-2, 4.1-3, 4.1-12, 4.1-14, and 4.1-16 through 4.1-20) with a 50 millimeter lens, which represents a horizontal view angle of 40 degrees. The figures should be viewed at a distance of approximately 13 inches in order to gain a relative scale of the photograph in relation to the natural scale of the surrounding landscape.

The simulations portray representative public views. The simulation vantage points are as follows:

Visual Simulations of the Proposed Farrell-Garnet 115 kV Subtransmission Line

1. View from west of Gene Autry Trail on I-10 looking south towards Salvia Road (Figure 4.1-2)
2. View from Salvia Road, viewing west-northwest (Figure 4.1-3)
3. View from Gene Autry Trail, south of UPRR, looking north (Figure 4.1-4)
4. View from East Via Escuela, west of Gene Autry Trail, looking northeast (Figure 4.1-5)

Visual Simulation of the Proposed Mirage-Santa Rosa 115 kV Subtransmission Line

1. View from Tri-Palm Estates, north of I-10, looking northeast (Figure 4.1-6)

Visual Simulations of the Proposed Devers-Coachella Valley 220 kV Loop-In

1. View from Vista de Oro, looking north (Figure 4.1-7)
2. View from east of Vista de Oro, north of Mirage Substation, looking northeast (Figure 4.1-8)

Visual Simulation of the 115 kV Reconfiguration at Date Palm Drive and Varner Road

1. View from west of the intersection of Varner Road and Date Palm Drive, looking southeast (Figure 4.1-9)

Visual Simulation of the 115 kV Reconfiguration at Bob Hope Drive and Dinah Shore Drive

1. View from northeast of the intersection of Bob Hope Drive and Dinah Shore Drive, looking west (Figure 4.1-10)

Visual Simulation of the 115 kV Reconfiguration at Portola Avenue and Gerald Ford Drive

1. View from southwest of the intersection of Gerald Ford Drive and Portola Avenue, looking east along Gerald Ford Drive towards Portola Avenue (Figure 4.1-11)

Visual Simulation of the Alternative 2 Subtransmission Line

1. View from North Sunrise Way, looking north towards the Four Seasons residential community entrance (Figure 4.1-12)

Visual Simulations of the Alternative 3 Subtransmission Line

1. View from Indian Canyon Drive, looking northeast (Figure 4.1-13)
2. View from San Rafael Road, looking east towards Indian Canyon Drive (Figure 4.1-14)

Visual Simulation of the Alternative 5 Subtransmission Line

1. View from Vista de Oro, north of Varner Road, looking south-southeast (Figure 4.1-15)

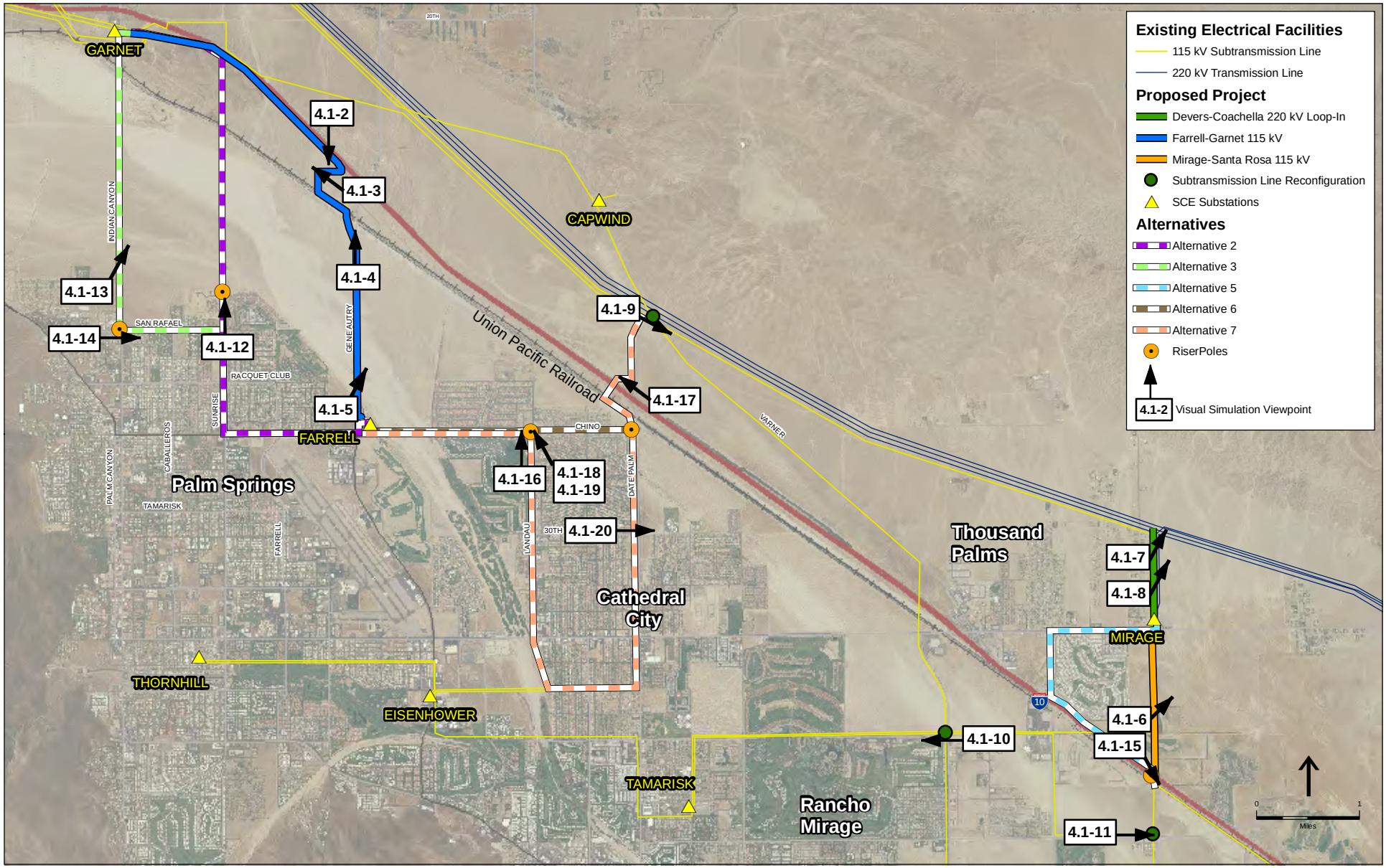
Visual Simulations of the Alternative 6 Subtransmission Line

1. View from Landau Boulevard, looking north towards Vista Chino (Figure 4.1-16)
2. View from westbound I-10 on-ramp, looking northwest along I-10 (Figure 4.1-17)[2]

Visual Simulations of the Alternative 7 Subtransmission Line

1. View from Landau Boulevard, looking northwest towards Vista Chino (Figure 4.1-18)
2. View from Landau Boulevard, looking north-northwest towards Vista Chino (Figure 4.1-19)
3. View from 30th Avenue and Avenida Los Ninos, looking east-northeast towards Date Palm Drive (Figure 4.1-20)

[2] Figure 4.1-17 is also applicable to Alternative 7.



SOURCE: SCE, 2008a, 2008b, and 2009.

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.1-1

Visual Simulation Viewpoints

Existing Condition: Existing single-circuit 115 kV subtransmission line with wood poles along Interstate 10

Simulated Condition: Proposed double-circuit 115 kV subtransmission line with light-weight and tubular steel poles

SOURCE: SCE, 2009.

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.1-2

Visual Simulation from west of Gene Autry Trail on Interstate 10, looking south towards Salvia Road

Existing Condition: Existing vacant land west of Salvia Road with wind farm in the background

Simulated Condition: Proposed double-circuit 115 kV subtransmission line with double-circuit light-weight steel poles

SOURCE: SCE, 2009.

Figure 4.1-3
Visual Simulation from Salvia Road,
looking west-northwest

Existing Condition: 115 kV single-circuit subtransmission line with wood poles crossing Gene Autry Trail.

Simulated Condition: Proposed 115 kV subtransmission line with light-weight and tubular steel poles crossing Gene Autry Trail.

SOURCE: SCE, 2008a.

Figure 4.1-4
Visual Simulation from Gene Autry Trail, south of Union Pacific Railroad, looking north

Existing Condition: 115 kV single-circuit subtransmission line with wood poles east of Gene Autry Trail, north of Farrell Substation.

Simulated Condition: Proposed 115 kV subtransmission line with light weight steel poles, east of Gene Autry Trail, north of Farrell Substation.

SOURCE: SCE, 2008a.

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.1-5

Visual Simulation from East Via Escuela, west of Gene Autry Trail, looking northeast

Existing Condition: 115 kV double-circuit subtransmission line adjacent to Tri-Palm Estates residences and golf course

Simulated Condition: Proposed 115 kV single-circuit subtransmission line with wood poles adjacent to existing 115 kV double-circuit subtransmission line.

SOURCE: SCE, 2008a.

Figure 4.1-6
Visual Simulation from Tri-Palm Estates,
north of I-10, looking northeast

Existing Condition: 115 kV single-circuit subtransmission line with wood poles and 220 kV double-circuit transmission lines with lattice steel towers adjacent to Vista de Oro.

Simulated Condition: Proposed 220 kV transmission line loop-in with double-circuit steel lattice towers.

SOURCE: SCE, 2008a.

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.1-7

Visual Simulation from Vista de Oro, looking north

Existing Condition: 220 kV double-circuit transmission lines with steel lattice towers.

Simulated Condition: Proposed 220 kV double-circuit transmission line loop-in with steel lattice towers.

SOURCE: SCE, 2008a.

Figure 4.1-8

Visual Simulation from east of Vista de Oro, north of Mirage Substation, looking northeast

Existing Condition: Existing subtransmission lines with wood poles and transmission lines with lattice steel towers.

Simulated Condition: Proposed 115 kV subtransmission line reconfiguration with tubular steel and wood pole replacements.

SOURCE: SCE, 2008a.

Figure 4.1-9

Visual Simulation from west of the intersection of Varner Road and Date Palm Drive, looking southeast

Existing Condition: 115 kV single-circuit subtranmission line with wood poles and 115 kV double-circuit subtransmission line with light-weight steel poles

Simulated Condition: Proposed 115 kV double-circuit subtransmission line reconfiguration with tubular steel poles

SOURCE: SCE, 2008a.

Figure 4.1-10

Visual Simulation from northeast of the intersection of Bob Hope Drive and Dinah Shore Drive, looking west

Existing Condition: Existing 115 kV single-circuit wood pole subtransmission line crossing Gerald Ford Drive.

Simulated Condition: Proposed 115 kV subtransmission line reconfiguration showing a new, double-circuit tubular steel pole at the northwest corner of Portola Avenue and Gerald Ford Drive that would replace an existing single-circuit wood pole

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

SOURCE: SCE, 2008a.

Figure 4.1-11

Visual Simulation from southwest of the intersection of Gerald Ford Drive and Portola Avenue, looking east along Gerald Ford Drive towards Portola Avenue

Existing Condition: Existing Four Seasons residential community with wood pole distribution line along Sunset Way road alignment

Simulated Condition: Alternative 2 single-circuit 115 kV tubular steel riser pole and proposed single-circuit 115 kV mono-pole subtransmission line with the existing distribution line underbuild

SOURCE: SCE, 2009.

Figure 4.1-12

Visual Simulation from North Sunrise Way, looking north towards the four seasons residential community entrance

Existing Condition: Existing distribution lines along North Indian Canyon Drive

Simulated Condition: Alternative 3 subtransmission line showing new 115 kV light-weight steel poles with distribution lines underbuilt

SOURCE: SCE, 2008b.

Figure 4.1-13

Visual Simulation from North Indian Canyon Drive, looking northeast

Existing Condition: Existing distribution lines at the intersection of Indian Canyon Drive and San Rafael Road

Simulated Condition: Alternative 3 single-circuit 115 kV tubular steel riser pole

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

SOURCE: SCE, 2009.

Figure 4.1-14
Visual Simulation from San Rafael Road,
looking east towards Indian Canyon Drive

Existing Condition: Existing 115 kV subtransmission line with tubular steel poles crossing I-10 and Varner Road

Simulated Condition: Alternative 5 showing new 95-foot double-circuit, tubular steel riser pole

SOURCE: SCE, 2008b.

Figure 4.1-15

Visual Simulation from Vista de Oro, north of Varner Road, looking south-southeast

Existing Condition: Existing single-circuit 115 kV subtransmission line and distribution lines at the intersection of Landau Boulevard and Vista Chino

Simulated Condition: Alternative 6 single-circuit 115 kV tubular steel riser pole

SOURCE: SCE, 2009.

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.1-16

Visual Simulation from Landau Boulevard, looking north towards Vista Chino

Existing Condition: Existing single-circuit 115 kV subtransmission line with wood poles, crossing I-10, west of Date Palm Drive

Simulated Condition: Alternatives 6 and 7 double-circuit 115 kV subtransmission line with tubular steel poles

SOURCE: SCE, 2009.

Figure 4.1-17

Visual Simulation from westbound Interstate 10 on-ramp, looking northwest along Interstate 10

Existing Condition: Existing single-circuit 115 kV subtransmission line and distribution lines at the intersection of Landau Boulevard and Vista Chino

Simulated Condition: Alternative 7 double-circuit 115 kV subtransmission line with tubular steel poles

SOURCE: SCE, 2009.

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.1-18

Visual Simulation from Landau Boulevard, looking northwest toward Vista Chino

Existing Condition: Existing single-circuit 115 kV subtransmission line with distribution underbuild

Simulated Condition: Alternative 7 double-circuit 115 kV subtransmission line with tubular steel poles

SOURCE: SCE, 2009.

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.1-19

Visual Simulation from Landau Boulevard, looking north-northwest towards Vista Chino

Existing Condition: Existing 115 kV single-circuit subtransmission line with wood poles

Simulated Condition: Alternative 7 double-circuit 115 kV subtransmission line with light-weight steel poles

SOURCE: SCE, 2009.

Figure 4.1-20

Visual Simulation from 30th Avenue and Avenida Los Ninos, looking east-northeast towards Date Palm Drive

4.1.3 Applicant Proposed Measures

No applicant proposed measures have been identified by SCE to reduce project impacts to aesthetic resources.

4.1.4 Aesthetics Impacts and Mitigation Measures

a) Have a substantial adverse effect on a scenic vista.

There are no designated scenic vistas in the vicinity of the Proposed Project. Therefore, there would be no impact to scenic vistas from construction, operation, or maintenance of the Proposed Project (No Impact).

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b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Impact 4.1-1: The Proposed Project could degrade scenic resources along State Route 111, an eligible State scenic highway. ***Less than significant*** **(Class III)**

As indicated in the visual setting, there are no officially designated federal or State scenic highways within the vicinity of the Proposed Project; therefore, the Proposed Project would not affect scenic resources within view from a federal or State scenic highway. However, SR 111 is an eligible State scenic highway.

Travelers on SR 111 would have views of the modifications at the Eisenhower and Farrell substations, as well as the southern portion of the proposed Farrell-Garnet 115 kV subtransmission line near Farrell Substation; however, views would be partially to fully screened by existing buildings and vegetation. The proposed modifications to the Eisenhower and Farrell substations would not represent substantial changes from SR 111 viewing locations because the new equipment would be of the same nature as the existing facilities; overall, visual change would be low. Moreover, the location of the new Farrell Substation driveway would not be visible from SR 111. The proposed Farrell-Garnet 115 kV subtransmission line would generally involve replacing a set of existing wood poles and overhead conductors with new, taller light-weight steel (LWS) poles, tubular steel poles (TSPs), and overhead conductors. Given the low overall visual change, impacts to SR 111 would be less than significant requiring no mitigation.

A portion of the proposed Farrell-Garnet 115 kV subtransmission line would be located within 1,000 feet of SR 111; however, the California Public Utilities Code Section 320, which would require undergrounding of new transmission facilities within 1,000 feet of State scenic highways, is not applicable to the Proposed Project. This code does not apply because the Proposed Project would involve upgrading existing facilities rather than adding new transmission facilities. Furthermore, this code only applies to lines under 50 kV and would therefore not apply to the Proposed Project.

Since no scenic resources are located on the project sites, and since it is expected that the Proposed Project would not substantially impacts views from SR 111, an eligible State scenic highway, impacts would be considered less than significant requiring no mitigation.

Mitigation: None required.

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c) Substantially degrade the existing visual character or quality of the site and its surroundings.

The Proposed Project would generally represent an incremental change to the visual character or quality of views currently experienced by the public in the vicinity of the proposed alignments, reconfiguration locations, and the existing substations. A site specific discussion of each of the Proposed Project components is provided below.

Construction

Subtransmission and Transmission Line

Construction-related impacts to visual quality would result from the presence of construction equipment, materials, and work crews along the subtransmission and transmission line alignments and on local access roads and staging areas. Crews would be required to maintain clean work areas as they proceed along the line and not leave any debris behind at any stage of the project. The construction impacts to visual quality would be relatively short-term, estimated to be approximately 18 months spread out along different portions of the Proposed Project alignments.

Impact 4.1-2: Staging areas during the construction period could result in temporary adverse impacts to visual quality. *Less than significant* (Class III)

Staging areas for project construction activities would be located within the Devers, Mirage, Concho, Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk substations. All staging areas would be located within the perimeter substation walls/fences. Material and equipment staged at these substations would include poles, steel lattice, wire reels, insulators, hardware, heavy equipment, light trucks, construction trailers, and portable sanitation facilities. Many of the staging areas would be effectively screened from the public by the walls/fences surrounding the substations as well as existing urban development. Portions of the staging areas could be visible above the substation walls/fences and/or through the fences; however, the material and equipment staged at these substations would be of the same industrial nature as the existing substation facilities and would result in an overall low visual change. Impacts would be less than significant.

Mitigation: None required.

Impact 4.1-3: Pulling/splicing sites during the construction period could result in temporary adverse impacts to visual quality. *Less than significant with mitigation* (Class II)

Temporary pulling/splicing sites would be staged at approximately 21 locations along the proposed subtransmission line alignments and at five locations along the Devers-Coachella Valley 220 kV Loop-In. These sites would vary in size, but would typically be about 200 feet by 200 feet. Each pull site would be cleaned up and restored to preconstruction conditions after construction. The pulling/splicing sites would likely be visible from adjacent roads, such as Vista de Oro and Gene Autry Trail and would represent a high visual change in more rural areas. Therefore, while the pulling/splicing sites would only be used on a temporary basis, adverse visual impacts associated with operation of these temporary sites could occur during the approximately 18-month construction period. Implementation of Mitigation Measure 4.1-3 would reduce impacts to less than significant by limiting the amount of time that equipment would be located at sites and by requiring SCE to restore all sites to pre-construction conditions.

> **Mitigation Measure 4.1-3:** SCE shall not place equipment on the pulling/splicing sites any sooner than two weeks prior to the required use. After each pulling/splicing site is no longer being used, SCE and/or its contractor shall clean up the site and restore in accordance with the SWPPP Plan.

Significant after Mitigation: Less than Significant.

Impact 4.1-4: Construction of proposed substation modifications could result in temporary adverse impacts to visual quality. *Less than significant* (Class III)

Construction of the proposed substation modifications would include vehicles, heavy equipment, and workers that could be visible during construction activities. All construction activities would take place within the existing substation fences or walls, with the exception of the Farrell Substation, where a new driveway would be constructed for permanent access. Walls, fences, and vegetation surrounding these sites would limit visibility of construction activities. It is anticipated that substation-related construction effects would be less noticeable as compared to the proposed subtransmission and transmission line work since the substation modifications would occur within an area that is currently occupied by existing facilities and where maintenance and repair equipment routinely operates; therefore, overall visual change would be low. Furthermore, due to the temporary nature of the construction activities at the substations (up to 18 months), the impact to the existing visual character in the vicinity of the substations would be less than significant.

Mitigation: None required.

Operations

Impact 4.1-5: The Proposed Project could substantially degrade the existing visual character or quality of its surroundings from public views. *Less than significant* (Class III)

Farrell-Garnet 115 kV Subtransmission Line

The proposed Farrell-Garnet 115 kV subtransmission line, located in the City of Palm Springs, would replace the existing Devers-Farrell-Windland 115 kV subtransmission line poles from Farrell Substation to Garnet Substation with the exception of a 0.8-mile segment north of the UPRR, which would be constructed within new ROW. The existing poles to the east of the 0.8-mile new ROW would be removed and the existing subtransmission line would be strung with the proposed subtransmission line on the new poles. This proposed alignment crosses the Whitewater River floodplain, which is an open desert basin characterized by alluvial soils and low, sparse vegetation.

Motorists traveling along Gene Autry Trail, Vista Chino Avenue, and I-10 would have views of the proposed subtransmission line. Motorists on Gene Autry Trail currently have direct views of the existing subtransmission line for a length of approximately 2.5 miles. Motorists on Vista Chino (SR 111) have views of the existing subtransmission line for a short duration at the intersection of Gene Autry Trail.

Figure 4.1-2 presents an existing view and visual simulation of the proposed Farrell-Garnet subtransmission line from I-10 west of Gene Autry Trail, looking south towards Salvia Road. A comparison of the existing view and visual simulation image indicates that the replacement of existing wood poles with new LWS poles and TSPs would result in a low overall change in visual character given that the new poles would be similar to existing wooden poles, only slightly taller and lighter in color. Poles placed within proposed new ROW would be visible but would not appear visually prominent from I-10; therefore, the overall visual change from the new poles located in new ROW would be low to moderate. Views from the portion of I-10 in the vicinity of the proposed Farrell-Garnet alignment are generally unobstructed. While traffic volumes are relatively high along I-10, vehicles are also moving around 65 miles per hour; therefore, view duration of the proposed Farrell-Garnet subtransmission line would be short and overall visual sensitivity would be considered moderate to high. Therefore, given the low to moderate visual change and moderate to high visual sensitivity, impacts would be considered adverse but would not exceed environmental thresholds. Impacts would be less than significant requiring no mitigation.

Figure 4.1-3 shows an existing view and visual simulation from Salvia Road, looking west towards the portion of the proposed Farrell-Garnet subtransmission line that would be constructed within new ROW. As show in this figure, poles associated with the new ROW would be visible from Salvia Road, but would not appear visually prominent. The overall visual change from this viewpoint would be low to moderate. Figure 4.1-4 presents an existing view and visual simulation of the proposed Farrell-Garnet subtransmission line looking north from Gene Autry Trail towards the UPRR overpass. A comparison of the existing view and visual simulation image indicates that

the replacement of existing wood poles with new LWS poles and TSPs on either side of the road crossing would result in a low change in visual character given that the new poles would be similar to existing infrastructure, only slightly larger and lighter in color. As seen in the visual simulation, views of the Farrell-Garnet subtransmission line from northbound travelers on Gene Autry Trail would be predominantly back dropped by the San Jacinto and Santa Rosa Mountains, therefore, the visual sensitivity along this portion of Gene Autry Trail would be moderate to high. Given the moderate to high sensitivity of the viewshed and the low visual change, impacts would be considered perceptible, but would not exceed environmental thresholds; impacts would be less than significant.

Residential views of the proposed Farrell-Garnet subtransmission line would be confined to a localized area adjacent to Gene Autry Trail. The majority of views toward the proposed alignment from these residences are fully to partially screened by walls, fences, residential structures, and vegetation; therefore, overall visual sensitivity would be low. Figure 4.1-5 presents an existing view and visual simulation of the proposed Farrell-Garnet subtransmission line from the residential area along East Via Escuela, looking northeast toward Gene Autry Trail and the Indio Hills. A comparison of the existing view and the visual simulation image indicates that the replacement poles would be placed closer together and extend just slightly further into the sky than the existing poles. The replacement poles would represent a change from the existing darker wood poles to the new lighter steel poles. However the overall visual change would be low; therefore, given the low visual sensitivity and low overall visual change, it can be assumed that impacts would be less than significant.

Recreational viewers potentially affected by the proposed Farrell-Garnet subtransmission line would include those associated with the Palm Springs Country Club Golf Course, located approximately 0.3 mile west of Gene Autry Trail, adjacent to the southern edge of the Whitewater River floodplain. Views of the subtransmission line alignment are greater than one-quarter mile and range from partially to fully screened, dependent on the presence of vegetation associated with the golf course. Therefore, as with the residences, visual sensitivity would be low, overall visual change would be low, and impacts would be less than significant.

Mirage-Santa Rosa 115 kV Subtransmission Line

The proposed Mirage-Santa Rosa subtransmission line would include the replacement of approximately 1.5 miles of existing single-circuit 115 kV subtransmission lines with double-circuit 115 kV subtransmission lines and the replacement of support structures within existing SCE ROWs and franchise locations between the Mirage Substation and the existing Santa Rosa-Tamarisk 115 kV subtransmission line. The Mirage-Santa Rosa-Tamarisk line would be located on the west side of the existing double-circuit wood poles, adjacent to the intersection of Vista de Oro and Calle Tosca, where it would proceed west along Calle Tosca to Tamarisk and Santa Rosa substations on existing structures.

From Mirage Substation to Calle Francisco, the proposed alignment would travel south along the east side of Vista de Oro, a dirt road, through open desert. From Calle Francisco to Calle Tosca, SCE would install a new single-circuit 115 kV subtransmission line within the existing SCE

ROW. This proposed subtransmission line would continue south, crossing open desert, until reaching Calle Desierto. South of Calle Desierto, the proposed subtransmission line would run adjacent to and east of the existing 115 kV subtransmission line, crossing the Tri- Palm Golf Course. The existing subtransmission lines cross through the golf course for approximately one-half mile (see Section 4.14, *Recreation* for analysis on recreational impacts). From Calle Tosca to the south side of I-10, SCE would rebuild an existing single-circuit 115 kV subtransmission line as a double-circuit 115 kV subtransmission line. This segment would cross both open desert and two additional areas of the Tri-Palm Golf Course before reaching and crossing I-10. South of I-10, the proposed line would be connected to an existing idle subtransmission line that would be energized to the corner of Portola Avenue and Gerald Ford Drive.

The proposed Mirage-Santa Rosa subtransmission line, located within existing SCE ROW, would primarily cross vacant desert land characterized by alluvial soils and low, sparse vegetation. Vegetation density increases in localized areas where residential and recreation-type (e.g., golf courses) development exists. The natural character of the vacant desert land in the vicinity of the proposed alignment has been modified by access roads and overland vehicular use.

Residential views of the proposed alignment range from direct and unobstructed to fully screened, dependent on the location of the viewer. A number of residences located in a golf community (Tri-Palm Estates), just south of Calle Desierto Road in the community of Thousand Palms, have the closest and most direct views of the proposed alignment. Residents located on the peripheral of this community have unobstructed views of the existing 115 kV subtransmission line ROW, which would include the proposed subtransmission line. Views of the proposed subtransmission line from within the interior of the Tri-Palms Estates community would be partially to fully screened by vegetation, walls, and other homes. Therefore, overall visual sensitivity from the Tri-Palm Estates community would be low to moderate. A simulation has been prepared (see Figure 4.1-6) that represents a “before and after” perspective from residential views on the eastern edge of Tri-Palm Estates, looking northeast across the Tri-Palm Golf Course. Given the presence of an existing 115 kV line, the additional line would result in a low to moderate visual change. Therefore, while there would be a perceptible change in residential views, impacts would be considered less than significant.

Recreational viewers at the Tri-Palm Golf Course would have views of the proposed subtransmission line. As noted above, the proposed subtransmission line would cross through the golf course for approximately one-half mile. Views from the golf course would be partially to fully screened at various viewing locations within the golf course, depending on the presence of existing vegetation, walls, and topographic relief. The low to moderate visual change to this moderately sensitive viewshed would be considered less than significant.

Travel routes in the vicinity of the proposed subtransmission line alignment include Ramon Road, I-10, and Varner Road. The proposed subtransmission line would cross Ramon Road south of the Mirage Substation. The proposed subtransmission line would also cross Varner Road and I-10, to tap into the existing Santa Rosa-Tamarisk 115 kV subtransmission line.

With the installation of new steel and wood poles adjacent to the existing wood poles, motorists on Vista de Oro and I-10 may see a noticeable change from the one set of poles to two sets of poles. However, as demonstrated in Figure 4.1-6, the new poles Calle Desierto and Calle Tosca would be similar to the existing poles in color and in height, and therefore, would represent a low to moderate visual change. Therefore, while the visual sensitivity along I-10 ranges from moderate to high; impacts would be less than significant due to the low to moderate visual change that would occur as a result of the Proposed Project.

Devers-Coachella Valley 220 kV Loop-In

The proposed Devers-Coachella Valley 220 kV Loop-In, located near the community of Thousand Palms, would primarily cross vacant desert land, characterized by alluvial soils and low, sparse vegetation. The proposed loop-in would include the construction of approximately 0.8 mile of 220 kV transmission line within existing SCE ROW and franchise locations between the Mirage Substation to the south, and the existing Devers-Coachella Valley 220 kV transmission line ROW to the north. Construction of the proposed 220 kV loop-in would include eight lattice steel towers (LSTs) and one TSP.

Depending on the location of the viewer, residential views of this ROW range from direct and unobstructed to fully screened. Approximately 20 residences located west of Vista de Oro, an unpaved road located within the ROW, possess the closest and most direct views. Existing transmission and subtransmission lines are located within the foreground views to the east of these residential lots. Four of these homes, just north of Ramon Road, also have direct views of the existing Mirage Substation.

Roadways in the vicinity of the proposed 220 kV loop-in include Vista de Oro and Ramon Road. Views from Vista de Oro are dominated by existing industrial facilities that include existing transmission and subtransmission lines and the Mirage Substation. Ramon Road runs perpendicular to the Mirage 220 kV ROW, just south of the Mirage Substation. Views from Ramon Road include existing transmission, subtransmission, and distribution lines, as well as the Mirage Substation.

Figures 4.1-7 and 4.1-8 represent “before and after” perspectives looking north and northeast, respectively, toward the proposed loop-in. A comparison of the existing views and the visual simulation images indicates that the placement of the new LSTs would be generally adjacent to existing LST locations. The installation of new 220 kV LSTs may be a noticeable change to motorists and persons in nearby residences; however, the new LSTs would represent a low to moderate change in the character of the existing view, as the views are already modified by existing electricity infrastructure. Therefore, the proposed Devers-Coachella Valley 220 kV Loop-In would not substantially degrade the visual quality of scenic vistas toward the mountains that are currently available in the area. This impact would be less than significant.

Date Palm Drive and Varner Road Subtransmission Line Reconfiguration

The proposed Date Palm Drive and Varner Road subtransmission line reconfiguration, located within the City of Cathedral City, is surrounded by desert hills occupied by widely spaced creosote bush. The work at Date Palm Drive and Varner Road would consist of removing six wood poles and installing one new TSP and four wood poles. The immediate vicinity has been highly modified by the presence of several existing transmission and subtransmission lines that range from 500 kV to 115 kV, access roads, as well as Varner Road and Date Palm Drive.

There are no residential or recreation viewers that would have views of the proposed line reconfiguration. Motorists using Varner Road, Date Palm Drive, and I-10 would have views of the proposed reconfiguration. Views from Varner Road and Date Palm Drive would be direct and unobstructed because the proposed lines and structures would be located immediately adjacent to the roads. Views from I-10, located approximately one mile to the south of the intersection, are intermittent and mostly screened.

Figure 4.1-9 shows an existing view and visual simulation demonstrating the view of the proposed subtransmission line reconfiguration looking southeast from the intersection of Date Palm Drive and Varner Road. A comparison between the existing view and the visual simulation indicates that the installation of a new 115 kV TSP and wood pole replacements would not be particularly noticeable as the new poles would be same or similar to existing pole locations and would represent a low overall visual change. Furthermore, the overall visual sensitivity would be low to moderate; therefore, this impact would be less than significant requiring no mitigation.

Bob Hope Drive and Dinah Shore Drive Subtransmission Line Reconfiguration

The proposed subtransmission line reconfiguration at the Bob Hope Drive and Dinah Shore Drive intersection would be located in the northern portion of the City of Rancho Mirage. In order to complete the reconfiguration of the Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line and connect this 115 kV subtransmission line to Santa Rosa Substation, four poles would be replaced with seven new poles at the intersection of Bob Hope Drive and Dinah Shore Drive. This intersection is surrounded by commercial and residential development, as well as vacant land. There are two existing 115 kV subtransmission lines, as well as billboards and developing commercial areas located within the vicinity of the intersection.

Two residential communities, located to the southwest and southeast of the intersection, would have views of the proposed subtransmission line reconfiguration. Generally, views of the intersection from these residential communities are limited due to the presence of vegetation, privacy walls, and residential structures. Several residences located to the southeast of the intersection have open views of the intersection, from a distance ranging from approximately 400 feet to one-quarter mile. Recreation viewers, located adjacent to the intersection at the Mission Hill Pete Dye Golf Course, have partially to fully screened views of the intersection. Residences and vegetation would screen a portion of the view from the golf course.

Views from Bob Hope Drive and Dinah Shore Drive could be affected by the proposed subtransmission line reconfiguration. Bob Hope Drive, south of the intersection, is considered a

scenic corridor by the City of Rancho Mirage General Plan. Views of the line reconfiguration from these travel routes would be open and direct. Therefore, overall visual sensitivity of the area would be moderate to high.

Figure 4.1-10 shows an existing view and visual simulation demonstrating the views of the proposed subtransmission line reconfiguration from the westbound lane of Dinah Shore Drive, viewing west toward the subject intersection. A comparison of the existing view and the visual simulation image demonstrates that the proposed subtransmission line reconfiguration would appear more visually prominent due to the additional three poles and the increased height of the double circuit TSPs. However, because the intersection has been highly modified with an existing billboard and electricity infrastructure, overall visual change would be low to moderate. This impact would be less than significant requiring no mitigation.

Portola Avenue and Gerald Ford Drive Subtransmission Line Reconfiguration

The local setting at the site of the proposed Portola Avenue and Gerald Ford Drive subtransmission line reconfiguration is a transition from natural desert that has been disturbed to a more suburban character that is consistent with other areas in the City of Palm Desert. The area has been modified locally by the existing 115 kV subtransmission line that crosses Gerald Ford Drive. The reconfiguration would involve the replacement of one wood pole, at the northwest corner of the intersection, with a new double-circuit TSP, approximately 50 feet north of the existing wood pole location that would be removed.

Residential viewers are associated with a small development located to the southwest of the intersection. Residences along the north and east sides of this development have unobstructed views of the line reconfiguration site, although at a distance of approximately one mile. Residential viewers located on the south and west sides of the community would have minimal to no views of the intersection, due to existing screening features, including vegetation, walls, and residential structures.

Transportation viewers would include motorists using Gerald Ford Drive and Portola Avenue. The views would be immediate and unobstructed because of the close proximity to the roads. Overall visual sensitivity would be moderate given the relatively unobstructed views of the intersection from motorists traveling along Gerald Ford Drive and Portola Avenue.

Figure 4.1-11 presents a “before” and “after” view of the line reconfiguration looking east along Gerald Ford Drive towards Portola Avenue. A comparison between the existing view and the visual simulation indicates that the line reconfiguration would not be particularly noticeable to motorists or persons in nearby residences and overall visual change would be low. The new pole would appear slightly more prominent due to its increased height and width, but overall, the proposed line reconfiguration would not substantially degrade the existing visual quality of the area. Given the moderate overall visual sensitivity and low visual change, this impact would be less than significant.

Substation Modifications

Operational impacts associated with the proposed substation modifications would be viewed in the context of the existing substation equipment. The Proposed Project includes the modification of the Devers, Mirage, Concho, Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk substations. Proposed modifications to the substations include installation of- and upgrades-to electrical components within the fenced perimeters of the substations, and new transmission and subtransmission conductors and support structures within or adjacent to the properties of existing substations. Five of the 10 substations, including Concho, Indian Wells, Santa Rosa, Garnet, and Thornhill, would be upgraded or improved with minimal physical changes. Upgrades and improvements would include new line positioning, new line protection relays, and, in some cases, replacement of existing bus tie protection relays. These minor equipment improvements would be generally imperceptible to viewers.

The remaining substations, including Devers, Mirage, Eisenhower, Farrell, and Tamarisk substations, would be modified with major equipment improvements which could potentially impact sensitive viewers. Each of these substations exhibits an industrial character. The Mirage Substation modifications would include several equipment improvements all within the substation walls; transformer and dead-end racks included in this upgrade would reach a maximum height of 60 feet. The Eisenhower Substation upgrades would include major equipment improvements, including the addition of two new TSPs and support structures, all of which would be contained within the substation walls. The Farrell Substation equipment improvements, including a dead-end rack, would be contained within, but would be higher than the substation wall. The Farrell Substation improvements would also include a new 16-foot-wide by 30-foot-long paved substation-access driveway with a 16-foot-wide gate that would be located along the Executive Drive frontage. Improvements to Tamarisk Substation would include one 115 kV circuit breaker that would be located inside of the substation fence/wall and would not be visible from outside of the substation. Major equipment improvements to Devers Substation would include four 115 kV circuit breakers that would be within the substation fence/wall and would not be visible to viewers outside of the substation.

Sensitive viewers were identified adjacent to all 10 substations associated with the Proposed Project. However, modifications at only three of the 10 modified substations (Mirage, Eisenhower, and Farrell Substations) could affect sensitive viewers. The sensitive viewers in the vicinity of these three substations include:

- Mirage Substation: dispersed residences along the western edge of the substation, as well as motorists on Ramon Road;
- Eisenhower Substation: motorists along East Mesquite Avenue and Gene Autry Trail; and
- Farrell Substation: motorists along Gene Autry Trail, Vista Chino Drive (SR 111), and residences along the west side of Gene Autry Trail.

The new major equipment, including the dead end racks at the Mirage and Farrell substations and TSPs at the Eisenhower Substation, would be visible from the sensitive viewpoints described

above and could result in noticeable change. However, since the new equipment would be of the same nature as the existing facilities, it would blend in with the existing view and overall visual change would be low to moderate. Furthermore, as discussed above, the new driveway at the Farrell Substation would not be seen from sensitive viewpoints, including from Vista Chino (SR 111). Therefore, this minor incremental change to the existing visual quality would have a less than significant impact.

Mitigation: None required.

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d) Creation of a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

Impact 4.1-6: If night lighting is required during construction, the Proposed Project could adversely affect nighttime views in the project area. ***Less than significant with mitigation*** **(Class II)**

Most of the construction activities associated with the Proposed Project would occur during daylight hours, minimizing the need for lighting. However, the potential exists that nighttime construction activity may be required due to system outages for subtransmission and telecommunication work. If night construction is required, temporary lighting would be required for security, safety, and operational reasons at the project facilities, including the staging areas and pull/tension sites. Night lighting could potentially result in impacts on visual resources by increasing ambient light to surrounding areas, creating distracting glare, and reducing sky or star visibility. The Proposed Project is located in a relatively developed area with features that result in reduced lighting contrast when compared to the unlighted areas of the undeveloped, open desert. In addition, nearby land uses, including residences and businesses, provide some lighting of their own. Nonetheless, nighttime lighting could have a potentially significant impact to nighttime views in the project vicinity; however, this impact would be temporary due to the relatively short duration of project construction (18 months). Furthermore, with implementation of Mitigation Measure 4.1-6, which requires a *Construction Lighting Mitigation Plan* (i.e. requires the use of shielded lighting elements, directed fixtures, and motion or timing sensors), this impact would be reduced to less than significant.

> **Mitigation Measure 4.1-6: Reduce construction night lighting impacts.** SCE shall design and install all lighting at project facilities, including construction and storage yards and staging areas, such that light bulbs and reflectors are not visible from public viewing areas, lighting does not cause reflected glare, and illumination of the project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a *Construction Lighting Mitigation Plan* to the CPUC for review and approval at least 90 days prior to the start of nighttime construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SCE shall not order any exterior lighting fixtures or components until the *Construction Lighting Mitigation Plan* is approved by the CPUC. The Plan shall include but is not limited to the following measures:

- Lighting shall be designed so exterior lighting is hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary.

- All lighting shall be of minimum necessary brightness consistent with worker safety.

- High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

Significant after Mitigation: Less than Significant.

Impact 4.1-7: The Proposed Project transmission lines could create new sources of glare. *Less than significant with mitigation* (Class II)

The Proposed Project would not include new lighting along the subtransmission line and transmission line alignments. Therefore, no new sources of light would occur. However, the introduction of new overhead conductors where none currently exist could be a noticeable visual change as seen from some viewing locations during the daytime. The new conductors are a potentially reflective surface which could cause glare. This effect could result in the new conductors appearing visible or prominent. This would be a potentially significant visual impact; however, implementation of Mitigation Measure 4.1-7 would reduce potential impacts to less than significant.

> **Mitigation Measure 4.1-7:** Non-specular conductors shall be installed to reduce the potential glare effects and the level of visual contrast between the subtransmission and transmission line and the landscape setting.

Significant after Mitigation: Less than Significant.

Impact 4.1-8: The Proposed Project substation modifications could create new sources of glare. *Less than significant with mitigation* (Class II)

The substation modifications would not add new permanent lighting at the Devers, Mirage, Concho, Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk substations; therefore, no new sources of light would be introduced. Of these substations, the Mirage, Concho, Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk substations would continue to not require lighting at night as they would not be staffed on site. It should be noted that the Devers Substation is currently well lit at night; however, the Proposed Project would not result in any additional lighting at the Devers Substation. While substation modifications would not add new lighting, the new substation structures (e.g., steel supports, transformers, dead-end racks, etc.) could introduce potentially reflective metal surfaces that could

create glare effects. This effect could result in the substation structures appearing more visible or prominent. This visual impact would be potentially significant; however, implementation of Mitigation Measure 4.1-8 would reduce impacts to less than significant.

> **Mitigation Measure 4.1-8:** A non-reflective or weathered finish shall be applied to all new structures and equipment installed at the Devers, Mirage, Concho, Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk Substations to reduce potential glare effects.

Significant after Mitigation: Less than Significant.

4.1.5 Cumulative Impacts

The geographic scope of the cumulative impacts to visual quality is the viewsheds that could be affected by the Proposed Project facilities from public roadways, trails, open space, and residential areas. Viewsheds of the project vicinity are extensive, given the extensiveness of the landscapes traversed, general lack of vegetative screening, and large number of people who reside in western Coachella Valley.

As discussed above, Mitigation Measures 4.1-3, 4.1-6, 4.1-7, and 4.1-8 would ensure that the Proposed Project would not result in significant individual effects on visual resources. The past, present, and reasonably foreseeable future projects described in Chapter 3, *Alternatives and Cumulative Projects,* include numerous major development projects in western Coachella Valley that could substantially alter the visual character of areas within the project vicinity. Many of these projects would have the potential to create new visual impacts within the viewsheds that could be affected by the Proposed Project from public roadways, trails, open space, and residential areas. However, the projects would generally be located in urbanized, developed areas and so would not be likely to affect the area's visual character. Additionally, future development within the project vicinity is guided by the applicable city and Riverside County General Plans, and associated planning and environmental documents. Furthermore, new development would be subject to the applicable city and Riverside County design review processes.

The Proposed Project would add new or upgraded electrical infrastructure to the overall visual setting of the project area. The Proposed Project would contribute to cumulative adverse influences where aboveground facilities occupy the same field of view as other built facilities or impacted landscapes that are currently in the viewsheds of sensitive viewers in the project area. Existing electricity infrastructure (described in the impact analysis above), including subtransmission lines, transmission lines, and substations, have compromised the existing visual setting in the project vicinity. Therefore, the Proposed Project, along with the past, present, and reasonably foreseeable projects, would not dominate the landscape setting.

When considered with the existing visual setting, the Proposed Project would not significantly alter existing scenic quality or viewsheds and would not substantially add cumulative effects. Cumulative impacts would be less than significant (Class II).

4.1.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

The No Project Alternative would have the potential to have a substantial adverse effect on a scenic vista depending on the location of new electrical infrastructure that may be included under this alternative. If placed within a scenic vista, impacts would be potentially significant. Furthermore, if new infrastructure would be located near a designated scenic highway, rock outcroppings or a historic building, visual impacts would be potentially significant.

Impacts from construction activities that may result under the No Project scenario would be temporary in nature and would likely be less than significant with implementation of a measure similar to Mitigation Measure 4.1-3. Infrastructure development under the No Project scenario would have the potential to require night lighting during construction; however, implementation of a measure similar to Mitigation Measure 4.1-6 would likely reduce such impacts to less than significant.

New infrastructure included under the No Project scenario would have the potential to degrade the overall visual quality of the study area depending on its location and design. Furthermore, while it is unlikely that lighting would be required during operations of new infrastructure under the No Project scenario, if such lighting was required, impacts would be potentially significant.

Alternative 2

The first three miles of the Alternative 2 subtransmission line would primarily cross low-density residential communities north of Vista Chino and along the east and west sides of Sunrise Way. However, this portion of the alternative would be located underground and would not be visible once constructed. North of Four Seasons Boulevard, this alternative would transition overhead and cross the Whitewater River drainage, south of I-10, before intersecting with the existing Devers-Farrell-Windland ROW. As with the proposed Farrell-Garnet alignment, there are no designated scenic vistas within the vicinity of the Alternative 2 alignment; therefore, no impacts to scenic vistas would occur (No Impact).

While there are no officially designated federal or State scenic highways in the vicinity of the Alternative 2 alignment, SR 111 (Vista Chino) is an eligible State scenic highway. However, given that the Alternative 2 subtransmission line would be located underground in the vicinity of

this highway, the alternative would not result in a long-term visual change. Therefore, no impact would occur (No Impact).

Construction impacts to visual quality would be generally the same as those associated with the Proposed Project and would require implementation of Mitigation Measure 4.1-3. However, Alternative 2 would also include a three mile underground portion of subtransmission line along Vista Chino and Sunrise Way. Construction of the underground portion would require trenching and would therefore require a greater amount of construction equipment which would cause a greater visual change than the Proposed Project. However, given that construction activities associated with the underground portion of the line would not be expected to take longer than six months, impacts would be considered adverse, but less than significant (Class III).

The majority of the Alternative 2 subtransmission line that would be located within existing residential neighborhoods would be located underground and would therefore result in no visual change. However, a 95-foot tall riser pole would be installed at the intersection of Sunrise Way and Four Seasons Boulevard where the line would transition to overhead. Figure 4.1-12 shows the existing and simulated view from Sunrise Way viewing north towards the Four Seasons residential community entrance. As shown, the 95-foot riser pole would appear nearly twice as tall as the existing wooden poles and would be visually prominent. However, given that electrical infrastructure currently exists at this location, overall visual change would be moderate. Views from motorists traveling north along Sunrise Way would be relatively unobstructed; however, views from most residences and from nearby streets and recreation facilities would be largely screened by vegetation and residential structures. Therefore, overall visual sensitivity would be moderate in the vicinity of the proposed riser pole; impacts would be less than significant (Class III).

The portion of the alternative north of Four Seasons Boulevard would include replacement of existing wooden distribution poles with LWS poles to the intersection of the Devers-Farrell-Windland 115 kV ROW. Replacement of distribution lines with single-circuit LWS poles would result in a moderate visual change given that LWS poles would be nearly twice as tall as most of the distribution poles. Some of these LWS poles would be visible from I-10, which has a moderate to high overall visual sensitivity. Therefore, impacts to visual quality from this portion of Alternative 2 would be higher than those anticipated under the proposed Farrell-Garnet subtransmission line. Nevertheless, impacts would be less than significant requiring no mitigation (Class III).

The portion of the Alternative 2 subtransmission line that would follow the Devers-Farrell-Windland ROW to the Garnet Substation would consolidate the two lines on new double-circuit support structures. Consolidation of the Devers-Farrell-Windland subtransmission line and the Alternative 2 subtransmission line would result in a low visual change given that double-circuit structures would not be substantially larger than existing wooden poles. This portion of the alternative would result in approximately the same level of visual change as the Proposed Project; therefore impacts would be less than significant (Class III).

Night lighting requirements during construction of the Alternative 2 subtransmission line would be similar to those anticipated under construction of the proposed Farrell-Garnet subtransmission line; impacts would be less than significant with implementation of Mitigation Measure 4.1-6 (Class II). Furthermore, as under the proposed Farrell-Garnet subtransmission line, new conductors associated with the aboveground portion of the alternative subtransmission line would introduce a reflective surface, which could cause glare. This effect could result in the new conductors appearing visible or prominent; however, impacts would be less than significant with implementation of Mitigation Measure 4.1-7 (Class II).

Alternative 3

The first 3.6 miles of the Alternative 3 subtransmission line would primarily cross low-density residential communities north of Vista Chino Avenue and along east and west sides of Sunrise Way and to the north and south of San Rafael Road. However, this portion of the alternative would be located underground and would not be visible once constructed. At Indian Canyon Drive and San Rafael Road, the alternative subtransmission line would transition overhead and follow Indian Canyon Drive to Garnet Substation. As with the proposed Farrell-Garnet subtransmission line, there are no designated scenic vistas within the vicinity of the Alternative 3 alignment; therefore, no impacts to scenic vistas would occur (No Impact).

While there are no officially designated federal or State scenic highways in the vicinity of the Alternative 3 alignment, SR 111 (Vista Chino) is an eligible State scenic highway. However, given that the Alternative 3 subtransmission line would be located underground in the vicinity of this, the alternative line would not result in a long-term visual change. Therefore, no impact would occur (No Impact).

Construction impacts to visual quality would be generally the same as those associated with the proposed Farrell-Garnet subtransmission line and would require implementation of Mitigation Measure 4.1-3. However, the Alternative 3 subtransmission line would also include a 3.6-mile underground portion of subtransmission line along Vista Chino, Sunrise Way, and San Rafael Road. Construction of the underground segment would require trenching and would therefore require a greater amount of construction equipment which would cause a greater visual change compared to the proposed Farrell-Garnet subtransmission line. However, given that construction activities associated with the underground portion of the line would not be expected to take longer than 10 months, impacts would be considered adverse, but less than significant (Class III).

Viewers most likely to be impacted by the Alternative 3 subtransmission line would include motorists traveling along Indian Canyon Drive and I-10. The portion of the alternative subtransmission line along North Indian Canyon Drive would include replacement of existing wooden distribution poles with LWS poles to the Garnet Substation. Figure 4.1-13 shows the existing and simulated view from Indian Canyon Drive, looking northeast. As shown, viewing from North Indian Canyon Drive, new LWS poles would be visually prominent. While there are existing distribution lines along Indian Canyon Drive, new LWS poles would be nearly twice as

tall, and would result in a moderate visual change. Therefore, impacts to visual quality from this portion of the Alternative 3 subtransmission line would be higher than those anticipated from the proposed Farrell-Garnet subtransmission line. Nevertheless, impacts would be less than significant (Class III).

The majority of the Alternative 3 subtransmission line that would be located within existing residential neighborhoods would be located underground and would therefore result in no visual change. However, a 95-foot tall riser pole would be installed north of the intersection of San Rafael Road and Indian Canyon Drive, where the line would transition to overhead. Figure 4.1-14 shows the existing and simulated view from San Rafael Road, viewing east towards Indian Canyon Drive. The 95-foot tall riser pole would be noticeable, but given that electrical infrastructure is currently prominent at this intersection, overall visual change would be low to moderate. Most residential views of the riser pole would be partially to fully screened by vegetation and fences; however, motorist traveling along San Rafael Road and Indian Canyon Drive would have a relatively unobstructed view of the riser pole. Therefore, the overall visual sensitivity in this area would be considered moderate. Given the low to moderate visual change and moderate visual sensitivity, impacts would be considered adverse but less than significant requiring no mitigation (Class III).

Night lighting requirements during construction of the Alternative 3 subtransmission line would be similar to those anticipated under construction of the proposed Farrell-Garnet subtransmission line; impacts would be less than significant with implementation of Mitigation Measure 4.1-6 (Class II). Furthermore, as with the proposed Farrell-Garnet subtransmission line, new conductors associated with the aboveground portion of the alternative would introduce a reflective surface which could cause glare. This effect could result in the new conductors appearing visible or prominent; however, impacts would be less than significant with implementation of Mitigation Measure 4.1-7 (Class II).

Alternative 5

The Alternative 5 subtransmission line would include the installation of approximately 3.1 miles of underground and overhead 115 kV subtransmission lines. From the Mirage Substation, the Alternative 5 subtransmission line would head south on Vista de Oro until Ramon Road where it would turn and head west. At Monterey Avenue the alternative alignment turns and heads south to Varner Road, where it then turns southeast on Varner Road and proceeds to the point where it joins the existing Mirage-Concho 115 kV overhead transmission line. At this location, the underground line would rise overhead, double circuiting the Mirage-Concho 115 kV subtransmission line. The Alternative 5 subtransmission line would cross I-10 on a riser TSP and would connect with the existing Santa Rosa-Tamarisk line south of I-10. As with the proposed Mirage-Santa Rosa subtransmission line, there are no designated scenic vistas within the vicinity of the Alternative 5 alignment; therefore, no impacts to scenic vistas would occur (No Impact).

There are no officially designated or eligible federal or State scenic highways in the vicinity of the Alternative 5 alignment. Furthermore, there are no rock outcroppings or historic buildings that would be impacted by the alternative. Therefore, no impacts to rock outcroppings, historic buildings, or scenic highways would occur (No Impact).

Construction impacts to visual quality would be generally the same as those associated with the proposed Mirage-Santa Rosa subtransmission line and would require implementation of Mitigation Measure 4.1-3. However, the Alternative 5 subtransmission line would also include an approximately three mile underground portion of subtransmission line along Ramon Road, Monterey Avenue, and Varner Road. Construction of the underground line would require trenching and would therefore require a greater amount of construction equipment, which would cause a greater visual change compared to the proposed Mirage-Santa Rosa subtransmission line. However, given that construction activities associated with the underground portion of the line would not be expected to take longer than six months, impacts would be considered adverse, but less than significant (Class III).

The majority of the Alternative 5 subtransmission line that would be located within existing residential neighborhoods would be located underground and would therefore result in no visual change. However, a 95-foot tall riser TSP would be installed at Varner Road where the line would transition overhead. Figure 4.1-15 shows the existing and simulated view from Vista de Oro looking south-southeast towards I-10. As shown, the 95-foot riser pole would be visually prominent. However, given that electrical infrastructure currently exists at this location, overall visual change would be moderate. Residential views from the Tri-Palm community would range from partially to fully screened by vegetation and fences; however, views from motorists traveling along I-10 would be relatively unobstructed. Therefore, the overall visual sensitivity in this area would also be considered moderate. Given the moderate visual change and moderate visual sensitivity, impacts would be considered adverse but less than significant requiring no mitigation (Class III).

Night lighting requirements during construction of the Alternative 5 subtransmission line would be similar to those anticipated under construction of the proposed Mirage-Santa Rosa subtransmission line; impacts would be less than significant with implementation of Mitigation Measure 4.1-6 (Class II). Furthermore, as with the proposed Mirage-Santa Rosa subtransmission line, new conductors associated with the aboveground portion of the alternative would introduce a reflective surface which could cause glare. This effect could result in the new conductors appearing visible or prominent; however, impacts would be less than significant with implementation of Mitigation Measure 4.1-7 (Class II).

Alternative 6

The Alternative 6 subtransmission line would primarily cross by low-density residential communities north and south of Vista Chino. However, a one-mile segment of the alternative would be located underground and would not be visible once constructed. As with the proposed

Farrell-Garnet subtransmission line, there are no designated scenic vistas within the vicinity of the Alternative 6 alignment; therefore, no impacts to scenic vistas would occur (No Impact).

While there are no officially designated federal or State scenic highways in the vicinity of the Alternative 6 alignment, SR 111 (Vista Chino) is an eligible State scenic highway. A portion of the Alternative 6 subtransmission line heading east from the Farrell Substation would be visible from the portion of SR 111 located along Vista Chino, west of Gene Autry Trail, and along Gene Autry Trail, south of Vista Chino. However, given that the portion of the Alternative 6 subtransmission line visible from SR 111 would replace existing single-circuit poles with new double-circuit poles, the overall visual change would be low. Therefore, impacts would be less than significant (Class III).

Construction impacts to visual quality would be generally the same as those associated with the proposed Farrell-Garnet subtransmission line and would require implementation of Mitigation Measure 4.1-3. However, the Alternative 6 subtransmission line would also include a one-mile underground portion of subtransmission line along Vista Chino. Construction of the underground portion would require trenching and would therefore require a greater amount of construction equipment which would cause a greater visual change than the proposed Farrell-Garnet subtransmission line. However, given that construction activities associated with the underground portion of the line would not be expected to take longer than two months, impacts would be considered adverse, but less than significant (Class III).

Two 95-foot tall riser poles would be installed at the intersections of Vista Chino and Landau Boulevard and Vista Chino and Date Palm Drive where the line would transition from overhead to underground and underground to overhead. Figure 4.1-16 shows the existing and simulated view from Landau Boulevard, looking north towards Vista Chino. As shown, the 95-foot tall riser pole would be visually prominent. However, given that electrical infrastructure currently exists at this location, overall visual change would be moderate. Most residential views in this area would be partially to fully screened by vegetation and fences; however, views from motorists traveling along Vista Chino, Landau Boulevard, and Date Palm Drive would be relatively unobstructed; therefore, overall visual sensitivity would be moderate. Given the moderate overall visual change and visual sensitivity, impacts would be considered adverse but less than significant requiring no mitigation (Class III).

Aside from the two riser poles described above, the majority of the Alternative 6 subtransmission line would involve replacement of existing single circuit structures with new double circuit structures. Figure 4.1-17 shows the existing and simulated view from the westbound I-10 on-ramp near Date Palm Drive, viewing northwest along I-10. As shown in the figure, replacement of existing single-circuit structures with new TSPs would result in a noticeable visual change given that new TSPs would be slightly larger and lighter in color. However, given that electrical infrastructure currently exists in this area, the overall visual change would be low to moderate. Impacts would be less than significant requiring no mitigation (Class III).

Night lighting requirements during construction of the Alternative 6 subtransmission line would be similar to those anticipated under construction of the proposed Farrell-Garnet subtransmission

line; impacts would be less than significant with implementation of Mitigation Measure 4.1-6 (Class II). Furthermore, as with the proposed Farrell-Garnet subtransmission line, new conductors associated with the aboveground portion of the alternative would introduce a reflective surface which could cause glare. This effect could result in the new conductors appearing visible or prominent; however, impacts would be less than significant with implementation of Mitigation Measure 4.1-7 (Class II).

Alternative 7

The Alternative 7 subtransmission line would primarily cross by low-density residential communities surrounding Vista Chino, Landau Boulevard, 33rd Avenue, and Date Palm Drive. As with the proposed Farrell-Garnet subtransmission line, there are no designated scenic vistas within the vicinity of the Alternative 7 alignment; therefore, no impacts to scenic vistas would occur (No Impact).

While there are no officially designated federal or State scenic highways in the vicinity of the Alternative 7 alignment, SR 111 (Vista Chino) is an eligible State scenic highway. A portion of the Alternative 7 subtransmission line heading east from the Farrell Substation would be visible from the portion of SR 111 located along Vista Chino, west of Gene Autry Trail, and along Gene Autry Trail, south of Vista Chino. However, given that the portion of the Alternative 7 subtransmission line that would be visible from SR 111 would replace existing single-circle poles with new double-circuit poles, the overall visual change would be low. Therefore, impacts would be less than significant (Class III).

Construction impacts to visual quality would be generally the same as those associated with the proposed Farrell-Garnet subtransmission line and would require implementation of Mitigation Measure 4.1-3 (Class II).

Figure 4.1-18 shows the existing and simulated view from Landau Boulevard viewing northwest towards Vista Chino. Similarly, Figure 4.1-19 shows the existing and simulated view from Landau Boulevard, looking north-northwest from a point slightly south of the viewpoint location used in Figure 4.1-18. As shown in both figures, there would be a low visual change from the replacement of existing single-circuit structures with new double-circuit structures. Figure 4.1-20 shows the existing and simulated view from 30th Avenue and Avenida Los Ninos looking east-northeast towards Date Palm Drive. As shown in this figure, replacement of existing single-circuit wooden poles with new double-circuit LWS poles would result in a noticeable visual change because the LWS poles would be slightly taller and would be lighter in color. However, given that a single circuit line and poles currently exist, overall visual change would be low to moderate. Impacts would be less than significant (Class III).

Night lighting requirements during construction of the Alternative 7 subtransmission line would be similar to those anticipated under construction of the proposed Farrell-Garnet subtransmission line; impacts would be less than significant with implementation of Mitigation Measure 4.1-6

(Class II). Furthermore, as with the proposed Farrell-Garnet subtransmission line, new conductors associated with the aboveground portion of the alternative would introduce reflective surfaces that could cause glare. This effect could result in the new conductors appearing visible or prominent; however, impacts would be less than significant with implementation of Mitigation Measure 4.1-7 (Class II).

References – Aesthetics

California Department of Transportation (Caltrans), 2008. *California Scenic Highway Mapping System*, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed October 15, 2008.

City of Cathedral City, 2002. *City of Cathedral City General Plan.* Adopted July 31, 2002.

City of Indian Wells, 1999. *City of Indian Wells General Plan.* Adopted February 1, 1999.

City of Palm Desert, 2004. *City of Palm Desert General Plan*. Adopted March 2004.

City of Palm Springs, 2007. *City of Palm Springs 2007 General Plan*. Adopted October 2007.

City of Rancho Mirage, 2005. *City of Rancho Mirage General Plan.* Adopted November 2005.

Riverside County, 2003. *Riverside County General Plan: Area Plans Volume II: Western Coachella Valley Area Plan.* Adopted October 7, 2003.

Southern California Edison (SCE), 2008a. *Proponent's Environmental Assessment for the Devers-Mirage 115 kV Subtransmission System Split Project,* 2008.

SCE, 2008b. SCE Responses to CPUC Data Request No. 1 for the Devers-Mirage 115 kV Subtransmission System Split Project, 2008.

SCE, 2009. SCE Responses to CPUC Data Request No. 5 for the Devers-Mirage 115 kV Subtransmission System Split Project, 2009.

4.2 Agricultural Resources

This section identifies and evaluates issues related to agricultural resources in the context of the Proposed Project and alternatives. It includes a description of existing land use conditions in relation to agricultural resources and an evaluation of potential impacts associated with implementation of the Proposed Project and alternatives. A discussion of applicable State, local, and regional plans and/or programs is also included.

4.2.1 Setting

Important Farmland

To characterize the environmental baseline for agricultural resources, Important Farmland Maps produced by the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) were reviewed. Important Farmland maps show categories of *Prime Farmland*, *Farmland of Statewide Importance*, *Unique Farmland*, *Farmland of Local Importance* (if adopted by the county), *Grazing Land*, *Urban and Built-up Land*, *Other Land*, and *Water*. *Prime Farmland* and *Farmland of Statewide Importance* map categories are based on qualifying soil types, as determined by the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), as well as current land use. These map categories are defined by the Department of Conservation's FMMP as follows (Department of Conservation, 2009a):

> **Prime Farmland:** Land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.
>
> **Farmland of Statewide Importance:** Land that is similar to *Prime Farmland* but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.
>
> **Unique Farmland:** Land of lesser quality soils used for the production of specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Examples of crops include oranges, olives, avocados, rice, grapes, and cut flowers.
>
> **Farmland of Local Importance:** Land of importance to the local agricultural economy, as determined by each county's board of supervisors and local advisory committees. Examples include dairies, dryland farming, aquaculture, and uncultivated areas with soils qualifying for *Prime Farmland* and *Farmland of Statewide Importance*.
>
> **Grazing Land:** Land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock.

Urban and Built-up Land: Land used for residential, industrial, commercial, construction, institutional, public administrative purpose, railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities are also included in this category.

Other Land: Land which is not included in any of the other mapping categories. Common examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres.

Water: Water areas with an extent of at least 40 acres.

Existing Agriculture Resources

According to the 2007 Census of Agriculture, there are 219,943 acres of farmland in Riverside County, including its component cities (USDA, 2009). The Proposed Project and alternatives are in rural open desert spaces or residential areas along existing SCE rights-of-ways (ROWs) or local public road franchise ROWs. Please refer to Section 4.9, *Land Use and Planning*, for a more detailed description of existing land uses through which the Proposed Project and alternatives would traverse.

The Proposed Project and alternatives would not be located on or in the vicinity of any parcels designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Furthermore, no lands subject to Williamson Act contracts would be crossed by the Proposed Project or alternatives (Department of Conservation, 2009b and RCLIS, 2009).

A portion of the proposed Mirage-Santa Rosa 115 kV subtransmission line and Alternative 5 would cross through a parcel designated as Farmland of Local Importance. This parcel is located north of Interstate 10 (I-10) and south of the Tri-Palm Estates Community. Currently, this parcel of land is not producing crops, nor is it used for the production of confined livestock. It should be noted that analysis of Farmland of Local Importance is not required under CEQA significance criteria.

Regulatory Setting

State

California Farmland Mapping and Monitoring Program

The California Department of Conservation, under the Division of Land Resource Protection, has set up the FMMP. The FMMP monitors the conversion of the State's farmland to and from agricultural use. The map series identifies eight classifications and uses a minimum mapping unit size of ten acres. The FMMP also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The FMMP is an informational service only and does not have regulatory jurisdiction over local land use decisions. For the purpose of this environmental analysis and consistency with the Farmland Policy Act of 1981, farmland includes

Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, and any conversion of land within these categories is typically considered to be an adverse impact.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) serves to preserve open spaces and agricultural land. It discourages urban sprawl and prevents landowners from developing their property for the greater land value of commercial and/or residential uses. The Williamson Act is a State program that allows agricultural landowners to pay reduced property taxes in return for their contractual agreement to retain the land in agricultural and open space uses for a period of ten years. The term of the contract automatically renews each year, so that the contract always has a ten year period left to function. The Williamson Act Program was revised by the enactment of Farmland Security Zone (FSZ) legislation during the 1998 legislative session, offering landowners greater property tax reduction in exchange for a longer contract term than under the Williamson Act Program.

Local

Riverside County General Plan

The following agricultural conservation policies identified in the General Plan Land Use Element (RCIP, 2003) may be applicable to the Proposed Project and alternatives:

> *Policy LU 16.1:* Encourage retaining agriculturally designated lands where agricultural activity can be sustained at an operational scale, where it accommodates lifestyle choice, and in locations where impacts to and from potentially incompatible uses, such as residential uses, are minimized, through incentives such as tax credits.
>
> *Policy LU 16.2:* Protect agricultural uses, including those with industrial characteristics (dairies, poultry, hog farms, etc.) by discouraging inappropriate land division in the immediate proximity and allowing only uses and intensities that are compatible with agricultural uses.
>
> *Policy LU 16.4:* Encourage conservation of productive agricultural lands. Preserve prime agricultural lands for high-value crop production.
>
> *Policy LU 16.5:* Continue to participate in the California Land Conservation Act (the Williamson Act) of 1965.
>
> *Policy LU 5.4:*Ensure that development and conservation land uses do not infringe upon existing public utility corridors, including fee owned rights-of-way and permanent easements, whose true land use is that of "public facilities." This policy will ensure that the "public facilities" designation governs over what otherwise may be inferred by the large scale general plan maps.
>
> *Policy LU 25.7:* Due to the scale of General Plan and Area Plan maps and the size of the County, utility easements and linear rights-of-way that are narrow in width are not depicted on General Plan and Area Plan maps. These features need to be taken into consideration in the review of applications to develop land and proposals to preserve land for conservation.

Desert Cities General Plans

The General Plans for the Cities of Palm Springs, Palm Desert, Rancho Mirage, Cathedral City, and Indian Wells provide background information regarding agriculture, but do not contain any agricultural control/management policies that may be applicable to the Proposed Project or alternatives (City of Palm Springs, 2007; City of Palm Desert, 2004; City of Rancho Mirage, 2005; Cathedral City, 2002; City of Indian Wells, 1996).

4.2.2 Significance Criteria

The significance criteria for this analysis were developed from criteria presented in Appendix G of the *CEQA Guidelines*. The project would result in a significant impact to agricultural resources if it would:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract; or

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland of Statewide Importance to non-agricultural use.

4.2.3 Applicant Proposed Measures

No applicant proposed measures have been identified by SCE for agricultural resources.

4.2.4 Agricultural Resources Impacts and Mitigation Measures

Approach to Analysis

Based on the CEQA statute, the analysis considers whether the Proposed Project would result in impacts to Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (hereafter collectively referred to as Farmland). For information purposes, impacts to Farmland of Local Importance are provided below; however, from a CEQA perspective, this designation is not considered an "agricultural land" per CEQA Statute Section 21060.1(a).

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

As discussed previously, there are no lands designated as Farmland within the project area. Therefore, construction and operation of the Proposed Project would not result in the conversion of Farmland to non-agricultural use. No impacts would occur (No Impact).

Impact 4.2-1: The Proposed Project would traverse a parcel of land that is identified as Farmland of Local Importance. ***Less than significant*** **(Class III)**

The proposed Mirage-Santa Rosa 115 kV alignment would traverse a parcel designated as Farmland of Local Importance under the FMMP. This parcel of land is mainly associated with the Tri-Palm Estates golf course and is currently not used for agricultural purposes. In addition, the portion of the proposed Mirage-Santa Rosa 115 kV alignment that would be constructed through the parcel would be constructed entirely within SCE's existing ROW. Therefore, although a portion of the Proposed Project would traverse through a parcel designated as Farmland of Local Importance, agricultural impacts to the parcel would be less than significant and mitigation would not be required.

Mitigation: None required.

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b) Conflict with existing zoning for agricultural use, or a Williamson Act contract.

There are no lands within the project area that are currently under a Williamson Act contract. As such, the Proposed Project would not adversely affect any land subject to Williamson Act contracts. Furthermore, the project area does not include any lands zoned for agricultural purposes. Therefore, the Proposed Project would not conflict with land currently zoned for agricultural uses (No Impact).

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c) Involve other changes in the existing environment which, due to their location or nature could result in conversion of Farmland, to non-agricultural use.

As discussed under a) above, the Proposed Project would not convert Farmland to any non-agricultural use. In addition, there is no Farmland in the project area that could adversely be affected by the Proposed Project. As discussed under b), the Proposed Project would not affect any lands zoned for agriculture, or involve any lands currently under Williamson Act Contract. Therefore, the Proposed Project would not involve other changes to the existing environment which, due to its location or nature could result in conversion of farmland, to non-agricultural use. The Proposed Project would have no impact on agricultural resources (No Impact).

4.2.5 Cumulative Impacts

The construction, operation, and maintenance of the Proposed Project, in addition to the other reasonably foreseeable future developments listed in Section 3.6, *Cumulative Projects*, would not result in cumulative impacts to agricultural resources. As previously mentioned, the Proposed Project would not convert Farmland to non-agricultural use. In addition, the project would not conflict with existing zoning for agricultural use, or with land currently under a Williamson Act contract, or involve other changes in the existing environment which, due to its location or nature

could result in conversion of Farmland to non-agricultural use. The proposed Mirage-Santa Rosa 115 kV alignment traverses a parcel designated as Farmland of Local Importance under the FMMP. However, impacts to this parcel would be less than significant given that the parcel is not currently used for agricultural purposes and the portion of the proposed alignment that traverses the parcel would be located within existing SCE ROW. Therefore, the Proposed Project would have a less than significant contribution to a cumulatively considerable impact when considered in combination with the other past, present, and reasonably foreseeable projects in the area (Class III).

4.2.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Under the No Project Alternative, none of the facilities or infrastructure upgrades associated with the Proposed Project evaluated in this EIR would be constructed by SCE. However, SCE would be required to design a new project in order to satisfy the objectives of the Proposed Project. If a new project required SCE to acquire new ROW, there would be a potential that the project could result in impacts to designated farmlands. Furthermore, acquisition of new ROW would have the potential to result in construction and operational impacts if new ROW would be located in areas zoned for agricultural uses or if the ROW included properties under an existing Williamson Act contract. Also, if a new project required SCE to acquire new ROW in areas currently used as farmland, there would be a potential that the project could result in the conversion of farmland to non-agricultural use. However, impacts would be unlikely as the study area is generally characterized as developed or open space desert land.

Alternative 2

There are no lands designated as Farmland within the area of the Alternative 2 alignment. Furthermore, no lands within the vicinity of the alternative are currently under Williamson Act contract nor are there any lands zoned for agricultural purposes. Therefore, no impact to agricultural resources would occur from construction and operation of Alternative 2 (No Impact).

Alternative 3

There are no lands designated as Farmland within the area of the Alternative 3 alignment. Furthermore, no lands within the vicinity of the alternative are currently under Williamson Act contract nor are there any lands zoned for agricultural purposes. Therefore, no impact to agricultural resources would occur from construction and operation of Alternative 3 (No Impact).

Alternative 5

There are no lands designated as Farmland or under Williamson Act contract within the area of the Alternative 5 alignment. Similarly to the Proposed Project, Alternative 5 would traverse a parcel designated as Farmland of Local Importance. This parcel of land is mainly associated with the Tri-Palm Estates golf course and is not currently used for agricultural purposes. Therefore, impacts to agricultural resources associated Alternative 5 would be less than significant (Class III).

Alternative 6

There are no lands designated as Farmland within the area of the Alternative 6 alignment. Furthermore, no lands within the vicinity of the alternative are currently under Williamson Act contract nor are there any lands zoned for agricultural purposes. Therefore, no impact to agricultural resources would occur from construction and operation of Alternative 6 (No Impact).

Alternative 7

There are no lands designated as Farmland within the area of the Alternative 7 alignment. Furthermore, no lands within the vicinity of the alternative are currently under Williamson Act contract nor are there any lands zoned for agricultural purposes. Therefore, no impact to agricultural resources would occur from construction and operation of Alternative 7 (No Impact).

References – Agricultural Resources

City of Cathedral City, 2002. *City of Cathedral City General Plan*, adopted July 31, 2002.

City of Indian Wells, 1999. *City of Indian Wells General Plan*, adopted February 1, 1999.

City of Palm Desert, 2004. *City of Palm Desert General Plan*, adopted March 2004.

City of Palm Springs, 2007. *City of Palm Springs 2007 General Plan*, adopted October 2007.

City of Rancho Mirage, 2005. *City of Rancho Mirage General Plan*, adopted November 2005.

Department of Conservation, 2009a. FMMP, Important Farmland, website (http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map_categories.aspx), accessed on October 20, 2009.

Department of Conservation, 2009b. FMMP, Important Farmland, website (ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/2006/), accessed on October 20, 2009.

Riverside County Integrated Project (RCIP), 2003. *General Plan Land Use Element and Multipurpose Open Space Element*, October 2003.

Riverside County Land Information System (RCLIS), 2009, website (http://www3.tlma.co.riverside.ca.us/pa/rclis/viewer.htm), accessed on October 20, 2009.

United States Department of Agriculture (USDA), 2009. *2007 Census Report, Volume 1, Chapter 2: County Level Data, California, Table 1. County Summary Highlights, 2007,* website (http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_2_County_Level/California/index.asp), accessed on October 20, 2009.

4.3 Air Quality

This section evaluates the potential for the Proposed Project, as well as the alternatives, to impact regional and local air quality and generate significant quantities of greenhouse gas emissions from stationary and mobile sources of air emissions during construction and operational activities. This section is based on a review of existing documentation of air quality conditions in the region, air quality regulations from the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD).

4.3.1 Setting

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features that influence pollutant movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, which affects air quality.

Regional Topography, Meteorology, and Climate

The potential for high pollutant concentrations to develop at a given location depends upon the quantity of pollutants emitted into the atmosphere in the surrounding area or upwind, and the ability of the atmosphere to disperse the air pollutants. The atmospheric pollution potential, as the term is used in this EIR, is independent of the location of emission sources and is instead a function of factors such as topography and meteorology.

The study area, which includes the Proposed Project and alternatives areas, is located in the Coachella Valley in Riverside County, California. The study area is in the Salton Sea Air Basin (SSAB), which is bounded by the San Jacinto Mountains to the west and by the Little San Bernardino Mountains to the east. The Pacific Subtropical High cell influences the SSAB during the summer by inhibiting cloud formation and encouraging daytime solar heating. The majority of moisture in the SSAB is a result of infrequent warm, moist, and unstable air masses from the south (Riverside County, 2003).

Warm winters, cool summers, small daily and seasonal temperature ranges, and high relative humidity are characteristic of the area nearest to the Pacific Ocean. With increasing distance east of the ocean, the maritime influence decreases. Areas that are well protected from the ocean, such as the study area, experience a more continental climate type with warmer summers, colder winters, greater daily and seasonal temperature ranges, and generally lower relative humidity (WRCC, 2009a).

The study area typically has average maximum and minimum winter (i.e., January) temperatures of 70 and 42 ºF, respectively, while average summer (i.e., July) maximum and minimum temperatures are 108 and 75 ºF, respectively. Precipitation in the study area averages approximately 5.4 inches per year (WRCC, 2009b).

Existing Air Quality

SCAQMD operates a regional monitoring network that measures the ambient concentrations of criteria pollutants. Existing levels of air quality in the study area can generally be inferred from ambient air quality measurements conducted by SCAQMD at its closest station. The closest station to the study area is the Palm Springs monitoring station, which is located south of Farrell Substation. The Palm Springs Monitoring Station measures ambient concentrations of ozone, nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter equal to or less than 10 microns in diameter (PM10), and particulate matter less than 2.5 microns in diameter (PM2.5).

Background ambient concentrations of pollutants are determined by pollutant emissions in a given area as well as wind patterns and meteorological conditions for that area. As a result, background concentrations can vary among different locations within an area. However, areas located close together and exposed to similar wind conditions can be expected to have similar background pollutant concentrations. Table 4.3-1 shows a five-year (2004 – 2008) summary of ozone, NO_2, CO, PM10, and PM2.5 monitoring data collected at the Palm Springs station. The data are compared with the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS).

As shown in the table, the State 1-hour ozone standard was exceeded between 26 and 41 times per year between 2004 and 2008. The State 8-hour ozone standard was exceeded between 70 and 88 times per year during the same time period while the national 8-hour ozone standard was exceeded between 51 and 61 times per year during the study period.

Between 2004 and 2008, the 24-hour State PM10 standard is estimated to have been exceeded approximately 13 to 20 times per year while the federal 24-hour PM10 standard is estimated to have been exceeded a total of approximately seven times over the five year period, all during 2006. For each of the two years which adequate data is available to determine annual average PM10 concentrations, the State standard of 20 $\mu g/m^3$ was exceeded.

As indicated in the table, no violations of the applicable NO_2, CO, or PM2.5 standards were recorded at the Palm Springs station during the five year study period.

Sensitive Receptors

For the purposes of air quality and public health and safety, sensitive receptors are generally defined as land uses with population concentrations that would be particularly susceptible to disturbance from dust and air pollutant concentrations, or other disruptions associated with project construction and/or operation. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, and/or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, which results in greater exposure to ambient air quality. Most

TABLE 4.3-1
AIR QUALITY DATA SUMMARY (2004–2008) FOR THE PROJECT AREA

		Monitoring Data by Year				
Pollutant	**Standard**	**2004**	**2005**	**2006**	**2007**	**2008**
Ozone						
Highest 1 Hour Average (ppm)		0.125	0.139	0.126	0.126	0.112
Days over State Standard	0.09	36	41	37	29	26
Highest 8 Hour Average (ppm)		0.107	0.116	0.109	0.102	0.101
Days over State Standard	0.070	88	78	79	83	70
Days over National Standard	0.075	53	61	61	58	51
Nitrogen Dioxide						
Highest 1 Hour Average (ppm)		0.066	0.059	0.093	0.063	0.049
Days over State Standard	0.18	0	0	0	0	0
Annual Average (ppm)		0.013	0.012	0.010	0.010	0.009
Carbon Monoxide						
Highest 8 Hour Average (ppm)		0.80	0.80	0.85	0.79	0.54
Days over State Standard	9.0	0	0	0	0	0
Particulate Matter (PM10)						
Highest 24 Hour Average (µg/m^3)		79.0	66.0	226.0	83.0	75.0
Estimated Days over State Standard[a]	50	*	13.1	19.6	*	*
Estimated Days over National Standard[a]	150	0.0	0.0	6.6	0.0	*
Annual Average (µg/m^3)	20	*	25.4	27.8	*	*
Particulate Matter (PM2.5)						
Highest 24 Hour Average (µg/m^3)		27.1	25.0	24.7	32.5	18.1
Estimated Days over National Standard[a]	35	0	*	*	0	*

Notes: ppm = parts per million; µg/m^3 = micrograms per cubic meter; * = insufficient data available to determine value.

[a] Measurements are usually collected every six days. Estimated days over the standard represents estimated days that the standard would have been exceeded if sampling occurred every day.

SOURCE: CARB, 2009a.

recreational uses (e.g., parks, sports fields, etc.) are also considered sensitive to poor air quality because vigorous exercise that tends to be associated with most types of recreation places a high demand on the human respiratory system.

Sensitive receptors in the project vicinity may be adversely affected by elevated localized concentrations of air pollutants during construction of the Proposed Project. Additionally, the SCAQMD recommends that the nearest receptor (including non-sensitive land uses such as commercial and industrial) be considered for purpose of analyzing a project's potential to cause a violation of an applicable air quality standard or to contribute significantly to an existing violation. The nearest sensitive and non-sensitive receptors to the Proposed Project components and the alternatives are described in more detail below.

Farrell – Garnet Study Area

Proposed Project Components

The nearest sensitive receptors to the proposed Farrell-Garnet 115 kV alignment include a number of residences along Norloti Street to the west of North Gene Autry Trail, approximately 150 feet from the SCE right-of-way (ROW). The nearest non-sensitive receptor is approximately 80 feet west of the construction area at the northern end of the proposed Farrell-Garnet 115 kV alignment, next to Garnet Substation.

The nearest receptors to the proposed Varner/Date Palm reconfiguration are residences located over 5,000 feet southwest of the site, to the south of I-10. The nearest receptors to the Edom communication site include a number of residences located along Moon Ranch Road, over 4,800 feet from the site.

Substation upgrades in the Farrell-Garnet study area are proposed for Devers Substation, Garnet Substation, Farrell Substation, Thornhill Substation, and Eisenhower Substation. Table 4.3-2 identifies the nearest sensitive and non-sensitive receptors to each substation as well as the distance between the substation and receptor.

TABLE 4.3-2
RECEPTORS NEAR SUBSTATIONS IN THE FARRELL-GARNET STUDY AREA

Substation	Distance to Nearest Receptor	Receptor Description
Devers	Sensitive 800 feet	Sensitive residence located along Diablo Road, south of 16th Avenue
	Non-Sensitive 560 feet	Non-Sensitive buildings located at 16th Avenue and Diablo Road
Garnet	Sensitive 4,800 feet	Sensitive residences located north of the substation along Indian Avenue
	Non-Sensitive 80 feet	Non-Sensitive building to the west of the substation
Farrell	Sensitive 160 feet	Sensitive residences to the west of the substation along Gene Autry Trail
	Non-Sensitive 80 feet	Non-Sensitive building to the east of the substation
Thornhill[a]	Sensitive 30 feet	Sensitive residences located directly adjacent to the substation property line
Eisenhower	Sensitive 900 feet	Sensitive residences located west of the substation along East Mesquite Avenue
	Non-Sensitive 160 feet	Non-Sensitive building located at the corner of East mesquite Avenue and South Gene Autry Trail.

[a] The nearest sensitive receptor also represents the nearest non-sensitive receptor.

Alternative 2

The Alternative 2 alignment would begin at the Farrell Substation and run west along East Vista Chino for approximately 1.3 miles where it would turn and head north along North Sunrise Way. The alternative would continue north until reaching the existing SCE subtransmission line just south of Interstate 10. From here the alignment would continue in the existing SCE 115 kV ROW until reaching the Garnet Substation. The first 2.6 miles of the Alternative 2 alignment would pass directly adjacent to residential land uses along East Vista Chino and North Sunrise Way with the remainder crossing primarily open space and undeveloped land. In addition to residential uses, this alternative would pass within 200 feet of the Montessori Elementary School of Palm Springs and the Desert Son-Shine Preschool and Kindergarten, both of which are located near the corner of East Vista Chino and North Sunrise Way. Other schools within half a mile of the alternative include Raymond Cree Middle School, First School of the Desert Preschool-Childcare, and Coyote Run Head Start Preschool.

Alternative 3

Alterative 3 would begin at the Farrell Substation and run west along East Vista Chino for approximately 1.3 miles where it would turn and head north along North Sunrise Way for approximately one mile until reaching San Rafael Drive. At San Rafael Drive the alternative would turn west and continue for approximately one mile until reaching North Indian Canyon Drive where it would head north until reaching Garnet Substation. The first 3.8 miles of Alternative 3 would pass directly adjacent to residential land uses located along East Vista Chino, North Sunrise Way, San Rafael Drive, and North Indian Canyon Drive while the remainder of the alternative would cross primarily through open space and undeveloped land. Schools within half a mile of the alternative include Raymond Cree Middle School, First School of the Desert Preschool-Childcare, Vista Del Monte Elementary School, and Desert Highlands Head Start. Alternative 3 would also pass within 200 feet of the Montessori Elementary School of Palm Springs and the Desert Son-Shine Preschool and Kindergarten.

Alternative 6

Alternative 6 would begin at the Farrell Substation and head east along East Vista Chino for about 2.7 miles to Date Palm Drive. At Date Palm Drive the alternative would head north and follow the existing Devers-Eisenhower 115 kV subtransmission line to Varner Road. At Varner Road the line would tap into the existing Garnet-Santa Rosa 115 kV subtransmission line. Approximately two miles of the Alternative 6 alignment would cross directly adjacent to residents located along East Vista Chino while the remainder of the alignment would be located primarily in undeveloped land or open space. In addition to residential uses, the alignment would be located within half a mile of Rio Vista Elementary School.

Alternative 7

Alternative 7 would begin at the Farrell Substation and head east along East Vista Chino for about 1.7 miles to Landau Boulevard. The alternative alignment would continue south on Landau Boulevard for approximately 2.5 miles to 33rd Avenue where it would head east to Date Palm Drive then north on Date Palm Drive for approximately 2.5 miles to East Vista Chino. At East

Vista Chino the line would follow the existing Devers-Eisenhower 115 kV subtransmission ROW to Varner Road. At Varner Road the line would loop into the existing Garnet-Santa Rosa 115 kV subtransmission line. Approximately seven miles of Alternative 7 would cross directly adjacent to residents along East Vista Chino, Landau Boulevard, 33rd Avenue, and Date Palm Drive. In addition to residents, the line would be located directly adjacent to Landau Elementary School and Mount San Jacinto High School. The alternative would also be located within half a mile of Rio Vista Elementary School and Sunny Sands Elementary School.

Mirage – Santa Rosa Study Area

Proposed Project Components

The nearest residential property lines to the proposed Devers–Coachella 220 kV Loop-In are located approximately 160 feet west of the corridor along Vista de Oro. However, the nearest residential structure is located approximately 250 feet west of the corridor. The nearest non-sensitive receptor is located approximately 80 feet west of SCE ROW along Vista de Oro north of La Cita.

There are a number of residences directly west of the proposed Mirage-Santa Rosa subtransmission line alignment along Bell Road between Calle Desierto and Calle Tosca. These residences are located approximately 100 feet from the SCE ROW.

Existing lines in the Mirage – Santa Rosa study area would be reconfigured at the intersection of Portola Avenue and Gerald Ford Drive and at the intersection of Dinah Shore and Bob Hope Drive. The nearest receptors to the intersection of Portola Avenue and Gerald Ford Drive include a number of residences located along Portola Avenue approximately 300 feet south of Gerald Ford Drive. The nearest receptor to the intersection of Dinah Shore Drive and Bob Hope Drive include a number of residences located within 50 feet southwest of the intersection.

Substation upgrades in the Mirage-Santa Rosa study area are proposed for the Mirage Substation, Tamarisk Substation, Santa Rosa Substation, Concho Substation, and Indian Wells Substation. The nearest sensitive receptors to each of these substations are identified in Table 4.3-3.

Alternative 5

The Alternative 5 alignment is approximately two miles, 1.2 miles of which passes directly adjacent to existing residential land uses along Ramon Road, Monterey Avenue, and Varner Road.

Regulatory Context

Air quality within the air SSAB is addressed through the efforts of various federal, State, and regional government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The air pollutants of concern and agencies primarily responsible for improving the air quality within the SSAB and the pertinent regulations are discussed below.

TABLE 4.3-3
RECEPTORS NEAR SUBSTATIONS IN THE MIRAGE-SANTA ROSA STUDY AREA

Substation	Distance to Nearest Receptor	Receptor Description
Mirage	Sensitive 320 feet	Sensitive residential structures located west of the substation
	Non-Sensitive 160 feet	Non-sensitive residential property lines and other structures to the west of the substation
Tamarisk[a]	Sensitive 30 feet	Sensitive residences located directly adjacent to the substation property line
Santa Rosa[a]	Sensitive 130 feet)	Sensitive residences located south of the substation along Don Quixote Drive
Concho	Sensitive 190 feet	Sensitive residences north of the substation along Country Club Drive
	Non-Sensitive 60 feet	Non-sensitive golf course club house located to the west of the substation
Indian Wells[a]	Sensitive 110 feet	Sensitive residences directly west of the substation along Orange Blossom Lane and Wildflower Lane

[a] The nearest sensitive receptor also represents the nearest receptor.

Criteria Air Pollutants

Regulation of air pollution is achieved through both national and State ambient air quality standards and emission limits for individual sources of air pollutants. As required by the federal Clean Air Act, the USEPA has identified criteria pollutants and has established NAAQS to protect public health and welfare. NAAQS have been established for ozone, NO_2, CO, sulfur dioxide (SO_2), particulate matter (i.e., PM10, PM2.5), and lead. These pollutants are called "criteria" air pollutants because standards have been established for each of them to meet specific public health and welfare criteria.

To protect human health and the environment, the USEPA has set "primary" and "secondary" maximum ambient thresholds for all six criteria pollutants. Primary thresholds were set to protect human health, particularly sensitive receptors such as children, the elderly, and individuals suffering from chronic lung conditions such as asthma and emphysema. Secondary standards were set to protect the natural environment and prevent further deterioration of animals, crops, vegetation, and buildings.

The NAAQS are defined as the maximum acceptable concentration that may be reached, but not exceeded more than once per year. California has adopted more stringent ambient air quality standards (i.e., CAAQS) for most of the criteria air pollutants. Table 4.3-4 presents both sets of ambient air quality standards (i.e., national and State) and provides a brief discussion of the

TABLE 4.3-4
STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone (O_3)	1 Hour 8 Hour	0.090 ppm 0.070 ppm	– 0.075 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when ROG and NOx react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide (CO)	1 Hour 8 Hour	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, CO interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide (NO_2)	1 Hour Annual	0.18 ppm 0.030 ppm	– 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide (SO_2)	1 Hour 3 Hour 24 Hour Annual	0.25 ppm – 0.04 ppm –	– 0.5 ppm 0.14 ppm 0.03 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Respirable Particulate Matter (PM10)	24 Hour Annual	50 µg/m^3 20 µg/m^3	150 µg/m^3	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Fine Particulate Matter (PM2.5)	24 Hour Annual	– 12 µg/m^3	35 µg/m^3 15.0 µg/m^3	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NOx, sulfur dioxide, and organics.
Lead (Pb)	Monthly Quarterly	1.5 µg/m^3 –	– 1.5 µg/m^3	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.

ppm = parts per million
µg/m^3 = micrograms per cubic meter

SOURCE: CARB 2008a and SCAQMD, 1993

related health effects and principal sources for each pollutant. California has also established State ambient air quality standards for sulfates, hydrogen sulfide, and vinyl chloride; however, air emissions of these pollutants are not expected under the Proposed Project or alternatives and thus, there is no further mention of these pollutants in this EIR. The SSAB is classified as non-attainment for both State and federal ozone and PM10 standards. For all other criteria pollutants, the SSAB is classified as either unclassified or as attainment with respect to State and federal standards.

Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NOx). ROG and NOx are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for at least three hours.

Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NOx under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone.

Carbon Monoxide

CO is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. When inhaled at high concentrations, carbon monoxide combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia.

Particulate Matter

PM10 and PM2.5 represent fractions of particulate matter that can be inhaled into air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates can also damage materials and reduce visibility.

Other Criteria Pollutants

SO_2 is a combustion product of sulfur or sulfur-containing fuels such as coal. SO_2 is also a precursor to the formation of atmospheric sulfate and particulate matter (PM10 and PM2.5) and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. Lead has a range of adverse neurotoxin health effects, and was formerly released into the atmosphere primarily via leaded gasoline. The phase-out of leaded gasoline in California resulted in decreasing levels of atmospheric lead.

Greenhouse Gas Emissions and Climate Change

Some gases in the atmosphere affect the Earth's heat balance by absorbing infrared radiation. These gases can prevent the escape of heat in much the same way as glass in a greenhouse. This is often referred to as the "greenhouse effect," and it is responsible for maintaining a habitable climate. On Earth the gases believed to be most responsible for the greenhouse effect are water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF_6). Enhancement of the greenhouse effect can occur when concentrations of these gases exceed the natural concentrations in the atmosphere. Of these gases, CO_2 and methane are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF_6 is a greenhouse gas (GHG) commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. SF_6, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG with 23,900 times the global warming potential as CO_2.[1] To account for the warming potential of greenhouse gases, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2e). Large emission sources are reported in million metric tons of CO_2e ($MMTCO_2e$).

There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming. Some of the potential resulting effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB, 2006). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2001):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal (i.e., daily) temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

[1] Global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. CO_2 is assigned a global warming potential of 1.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

CARB estimated that in 2006, California produced 484 million gross metric tons of CO_2e GHG emissions (CARB, 2009b). CARB found that transportation is the source of 38 percent of the State's GHG emissions; followed by electricity generation at 22 percent, and industrial sources at 21 percent.

The California Climate Action Registry (CCAR) is a private non-profit organization that serves as a voluntary GHG registry to protect and promote early actions to reduce GHG emissions by organizations. SCE is a member in the CCAR, and provides voluntary reports of GHG emissions. For 2007, SCE reported the following levels of GHG emissions from all of its activities (CCAR, 2009):

- Mobile Combustion Emissions: 0.051 $MMTCO_2e$;
- Stationary Combustion Emissions: 6.868 $MMTCO_2e$;
- Fugitive Emissions: 0.269 $MMTCO_2e$; and
- Indirect Emissions (purchased electricity): 1.986 $MMTCO_2e$

Regulatory Setting

Federal

The USEPA is responsible for implementing the programs established under the federal Clean Air Act, such as establishing and reviewing the NAAQS and judging the adequacy of State Implementation Plans (SIPs), but has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented.

State

CARB is responsible for establishing and reviewing the State standards, compiling the California SIP and securing approval of that plan from USEPA, conducting research and planning, and identifying toxic air contaminants. CARB also regulates mobile sources of emissions in California, such as construction equipment, trucks, and automobiles, and oversees the activities of California's air districts, which are organized at the county or regional level. County or regional air districts are primarily responsible for regulating stationary sources at industrial and commercial facilities within their geographic areas and for preparing the air quality plans that are required under the federal Clean Air Act and California Clean Air Act.

Executive Order S-3-05

In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32 – California Global Warming Solutions Act

California Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, was enacted as legislation in 2006 and requires CARB to establish a statewide GHG emission cap for 2020 based on 1990 emission levels. AB 32 required CARB to adopt regulations by January 1, 2008, that identified and required selected sectors or categories of emitters of GHGs to report and verify their statewide GHG emissions, and CARB is authorized to enforce compliance with the program. Under AB 32, CARB was also required to adopt, by January 1, 2008, a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990, which must be achieved by 2020. By January 1, 2011, CARB is required to adopt rules and regulations (which shall become operative January 1, 2012), to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 permits the use of market-based compliance mechanisms to achieve those reductions. AB 32 also requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts.

In June 2007, CARB directed staff to pursue 37 early actions for reducing GHG emissions under AB 32. The broad spectrum of strategies to be developed – including a Low Carbon Fuel Standard, regulations for refrigerants with high global warming potentials, guidance and protocols for local governments to facilitate GHG reductions, and green ports – reflects that the serious threat of climate change requires action as soon as possible (CARB, 2007a).

In addition to approving the 37 GHG reduction strategies, CARB directed staff to further evaluate early action recommendations made at the June 2007 meeting, and to report back to CARB within six months. The general sentiment of CARB suggested a desire to try to pursue greater GHG emissions reductions in California in the near-term. Following the June 2007 CARB hearing, CARB staff evaluated all 48 recommendations submitted by stakeholders and several internally-generated staff ideas and published the *Expanded List of Early Action Measures To Reduce Greenhouse Gas Emissions In California Recommended For Board Consideration* in October 2007 (CARB, 2007b).

Climate Change Scoping Plan

In December of 2008, CARB released a Scoping Plan outlining the State's strategy to achieve the 2020 GHG emissions limit (CARB, 2008c). This Scoping Plan, developed by CARB in coordination with the Climate Action Team (CAT), proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce

dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health. It was adopted by the Board at its meeting in December 2008. The measures in the Scoping Plan approved by the Board will be developed over the next two years and be in place by 2012.

The Scoping Plan expands the list of nine Early Action Measures into a list of 39 Recommended Actions contained in Appendices C and E of the Plan. These measures are presented in Table 4.3-5 below.

The following recommended actions are directly applicable to the Proposed Project:

> *(T-7) Heavy-Duty Vehicle GHG Emission Reduction (Aerodynamic Efficiency)—Discrete Early Action.* This measure would require existing trucks/trailers to be retrofitted with the best available technology and/or CARB approved technology. This measure has been identified as a Discrete Early Action, which means it must be enforceable starting in 2010. Technologies that reduce GHG emissions and improve the fuel efficiency of trucks may include devices that reduce aerodynamic drag and rolling resistance. The requirements would apply to California and out-of-State registered trucks that travel to California. The cost of these retrofits would be recovered over the life of the vehicle through reduced fuel use. This measure would require in-use trucks and trailers to comply through a phase-in schedule starting in 2010 and achieve 100 percent compliance by 2014. Additionally, new 2011 and later tractors and trailers that are sold in or serviced in California would need to be certified for aerodynamic efficiency requirements. The 2020 estimated GHG reductions could be up to 6.4 $MMTCO_2e$ nationwide, of which about 0.93 $MMTCO_2e$ or about 15 percent would occur within California (CARB, 2008c).
>
> *(H-6) High GWP Reductions from Stationary Sources – SF_6 Leak Reduction and Recycling in Electrical Applications.* "This measure will reduce emissions of SF_6 within the electric utility sector and at particle accelerators by requiring the use of best achievable control technology for the detection and repair of leaks, and the recycling of SF_6. This measure would establish a regulation mandating a performance standard. Utilities and other affected entities would comply by using leak detection and repair (LDAR) abatement equipment to reduce system leakage. The proposed performance standard would mandate and enhance current voluntary federal SF_6 recycling standards. Voluntary industry practices have established an 80 percent SF_6 recovery rate, based on perceived economic efficiencies of recovery equipment. The proposed standard would increase recovery and recycling to 100 percent of the SF_6 contained in electrical and particle accelerator equipment without substantially increasing the industries' costs (CARB, 2008c).

In addition, the Plan identifies challenges to meeting future demand, including Building Transmission for Renewables and Modernizing Electricity Infrastructure. The Plan states:

> "Population growth in hot areas and the need to reach remote renewable generation regions both require adding electricity transmission capability. Without new transmission lines, a 33 percent target for the Renewable Portfolio Standard (RPS) is unlikely to be met. Equally important to building transmission is modernizing the transmission and electricity distribution system. Advanced control, communications, and metering technologies, as well as improvements in control of both conventional and renewable generation, can create a more reliable, resilient grid." (CARB, 2008c)

TABLE 4.3-5
RECOMMENDED ACTIONS OF CLIMATE CHANGE SCOPING PLAN

ID #	Sector	Strategy Name
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards
T-2	Transportation	Low Carbon Fuel Standard (Discrete Earl Action)
T-3	Transportation	Regional Transportation-Related GHG Targets
T-4	Transportation	Vehicle Efficiency Measures
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)
T-6	Transportation	Goods-movement Efficiency Measures
T-7	Transportation	Heavy Duty Vehicle Greenhouse Has Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization
T-9	Transportation	High Speed Rail
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs ; More stringent Building and Appliance Standards
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000 GWh
E-3	Electricity and Natural Gas	Renewables Portfolio Standard
E-4	Electricity and Natural Gas	Million Solar Roofs
CR-1	Electricity and Natural Gas	Energy Efficiency
CR-2	Electricity and Natural Gas	Solar Water Heating
GB-1	Green Buildings	Green Buildings
W-1	Water	Water Use Efficiency
W-2	Water	Water Recycling
W-3	Water	Water System Energy Efficiency
W-4	Water	Reuse Urban Runoff
W-5	Water	Increase Renewable Energy Production
W-6	Water	Public Goods Charge (Water)
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission
I-4	Industry	Refinery Flare Recovery Process Improvements
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements
RW-3	Recycling and Waste Management	High Recycling/Zero Waste
F-1	Forestry	Sustainable Forest Target
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)
H-3	High Global Warming Potential Gases	Reduction in Perflourocarbons in Semiconductor Manufacturing (Discrete Early Action)
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases
A-1	Agriculture	Methane Capture at Large Dairies

SOURCE: CARB, 2008c.

CARB Preliminary Draft Staff Proposal, October 2008

In its Staff Proposal, CARB is taking the first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the State.

CARB's staff has developed a preliminary interim threshold concept for industrial projects (CARB, 2008b). CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (~90 percent statewide) of the GHG emissions from new industrial projects that are subject to CEQA's requirement to impose feasible mitigation. CARB believes this can be accomplished with a threshold that allows small projects to be considered less than significant. CARB staff used existing data for the industrial sector to derive a proposed hybrid threshold. The threshold is 7,000 metric tons of CO_2e per year for operational emissions (excluding transportation), and performance standards for construction and transportation emissions. These performance standards have not yet been developed.

South Coast Air Quality Management District (SCAQMD)

The study area is within the jurisdiction of the SCAQMD. The SCAQMD regulates air pollutant emissions for all sources throughout western Riverside County other than motor vehicles. The SCAQMD enforces regulations and administers permits governing stationary sources. The following rules and regulations will apply to the Proposed Project:

> *Regulation IV – Prohibitions, Rule 402 – Nuisance.* This rule prohibits the discharge of air contaminants or other material in quantities that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.
>
> *Regulation IV – Prohibitions, Rule 403 – Fugitive Dust.* This rule limits the emissions of fugitive dust or particulate matter from a variety of activities and sources such as construction sites, bulk material hauling, unpaved parking lots, and disturbed soil in open areas and vacant lots. It includes a visible emissions property line standard, requirement to implement Best Available Control Measures (BACM), upwind/downwind PM10 concentrations standards, prevention of track-out on to paved public roads, and special control requirements for large operations.
>
> *Regulation IV – Prohibitions, Rule 403.1 – Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources.* This rule builds on regulations set forth in Rule 403 by setting additional performance standards for certain activities in the Coachella Valley during high wind conditions.

As required by the federal Clean Air Act and the California Clean Air Act, air basins or portions thereof have been classified as either "attainment" or "nonattainment" for each criteria air pollutant, based on whether or not the standards have been achieved. Jurisdictions of nonattainment areas are also required to prepare an air quality management plan (AQMP) that includes strategies for

achieving attainment. The SCAQMD's most recent AQMP was adopted on June 1, 2007. The purpose of the 2007 AQMP is to set forth a comprehensive program that will lead the region into compliance with federal 8-hour ozone and PM2.5 air quality standards. The 2007 AQMP also specifically addresses transport issues relative to the Coachella Valley Planning Area.

Riverside County

Policies from the Riverside County General Plan that are applicable to the Proposed Project and alternatives include the following (Riverside County, 2003):

> *Policy AQ 2.2*: Require site plan designs to protect people and land uses sensitive to air pollution through the use of barriers and/or distance from emissions sources when possible.
>
> *Policy AQ 4.1*: Encourage the use of building materials/methods which reduce emissions.
>
> *Policy AQ 4.7*: To the greatest extent possible, require every project to mitigate its anticipated emissions which exceed allowable emissions as established by the SCAQMD, MDAQMD, SOCAB, the Environmental Protection Agency, and the California Air Resources Board.
>
> *Policy AQ 4.9*: Require compliance with SCAQMD Rules 403 and 403.1, and support appropriate future measures to reduce fugitive dust emanating from construction sites.
>
> *Policy AQ 17.1*: Reduce particulate matter from agriculture, construction, demolition, debris hauling, street cleaning, utility maintenance, railroad rights-of-way, and off-road vehicles to the extent possible.

City of Palm Springs

Portions of the Proposed Project and alternatives would be located within the City of Palm Springs. Chapter 8.50 of the Palm Springs Municipal Code, *Fugitive Dust Control*, establishes minimum requirements for construction and demolition activities and other specified sources in order to reduce man-made fugitive dust and corresponding PM10 emissions. This ordinance is based on performance standards and test methods included in the Coachella Valley Dust Control Handbook (City of Palm Springs, 2008).

The City of Palm Springs General Plan also includes policies addressing air quality issues. The following policies are applicable to the Proposed Project and alternatives (City of Palm Springs, 2007):

> *Policy AQ2.3*: Reduce transport of blowsand[2] adjacent to paved roadways and residential areas through the use of chemically stabilizing soil surfaces or snow fence windbreaks. Chemical stabilizing measures should only be used in areas where they will not impact endangered habitats or species.
>
> *Policy AQ2.5*: Prohibit the use of off-road vehicles in blowsand areas.

[2] The City of Palm Springs General Plan refers to fugitive dust as "blowsand."

Policy AQ2.6: Prohibit the transport of earth/soil through the City when wind gusts exceed 25 miles per hour per the City's PM10 Ordinance.

Policy AQ2.7: Require planting of vegetative ground covers as soon as possible on construction sites.

Policy AQ2.9: Phase mass grading in a way that minimizes, to the greatest extent possible, the exposure of large expanses of graded areas to wind that causes blowing sand.

City of Cathedral City

The Cathedral City Municipal Code addresses fugitive dust emissions in Chapter 8.54, *Fugitive Dust Control*. This ordinance is based on performance standards and test methods included in the Coachella Valley Dust Control Handbook (City of Cathedral City, 2008). The City also addresses air quality planning issues in the Air Quality Element of its General Plan. The following General Plan policies and programs are applicable to the Proposed Project and alternatives (City of Cathedral City, 2002):

Policy 2: The City shall fully implement dust control ordinances, and coordinate and cooperate with local, regional and federal efforts to monitor, manage and reduce the levels of major pollutants effecting the City and region, with particular emphasis on PM10 emissions.

Program 4.B: Projects that may generate significant levels of air pollution shall be required to conduct detailed impact analyses and incorporate mitigation measures into their designs using the most advanced technological methods feasible. All proposed mitigation measures shall be reviewed and approved by the City prior to issuance of grading or demolition permits.

Policy 6: All grading, earthwork, and construction activities shall be in accordance with applicable fugitive dust control ordinances and regulations, including those established by the City, CVAG, SCAQMD, and other appropriate agencies.

City of Rancho Mirage

Chapter 7.01 of the City of Rancho Mirage's Municipal Code, Control of PM10, Fugitive Dust and Other Emissions, establishes minimum requirements for construction and demolition activities and other specified sources in order to reduce man-made fugitive dust and associated PM10 emissions (City of Rancho Mirage, 2008). The City of Rancho Mirage also addresses air quality planning issues in the Air Quality Element of its General Plan. The following policies and programs are applicable to the Proposed Project and alternatives (City of Rancho Mirage, 2005):

Program 1.C: Coordinate with developers to encourage the phasing and staging of development to assure the lowest construction related pollutant emission levels practical. Impose mitigation measures, including the use of water trucks and temporary irrigation systems as well as other measures that will effectively limit fugitive dust emissions resulting from construction or other site disturbance.

Program 5.B: Require projects with the potential to generate significant levels of air pollutants to incorporate air pollution mitigation in their design and operation, and to utilize the most advanced technological methods feasible.

City of Palm Desert

The City of Palm Desert addresses impacts to local fugitive dust and PM10 emissions through its Fugitive Dust Control Ordinance. This ordinance outlines performance standards and test methods included in the Coachella Valley Dust Control Handbook (City of Palm Desert, 2009). Air quality issues are also addressed in the *Air Quality Element* of the City's General Plan through the following policies and programs (City of Palm Desert, 2004):

> *Program 2.A*: The City shall conduct an initial study and, as appropriate, require detailed air quality analyses for all applications which have the potential to adversely affect air quality.
>
> *Program 2.B*: Projects with the potential to generate significant levels of air pollution, such as manufacturing facilities and site development operations, shall be required by the City to incorporate air pollution mitigation into their project design and operations, and to utilize the most advanced technological methods feasible. Mitigation measures and dust control plans shall be approved by the City prior to the issuance of grading, construction, demolition or other permits.
>
> *Program 3.C*: Continue to implement and enforce the Fugitive Dust Control Ordinance to reduce PM10 emissions to the greatest extent practical.

City of Indian Wells

Chapter 8.20 of the Indian Wells Municipal Code, *Fugitive Dust Control*, establishes minimum requirements for construction and demolition activities and other specified sources in order to reduce man-made fugitive dust and corresponding PM10 emissions (City of Indian Wells, 2008). The City of Indian Wells General Plan addresses air quality in its Conservation and Open Space Element, but does not contain any programs or policies that are applicable to the Proposed Project and alternatives (City of Indian Wells, 1996).

4.3.2 Significance Criteria

The significance of potential impacts to air quality was determined based on CEQA Guidelines (CCR Sections 15000-15387, Appendix G) and other relevant considerations. The guidelines identify certain thresholds to assist in determining whether an impact reaches a level that produces adverse effects. Using these thresholds and other relevant considerations, implementation of the project would be considered to have significant air quality impacts if it were to:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

d) Expose sensitive receptors to substantial pollutant concentrations; or

e) Create objectionable odors affecting a substantial number of people.

In addition, the Governor's Office of Planning and Research (OPR) has suggested that a project may be considered to have a significant impact in regards to GHG emissions if it were to:

f) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance; or

g) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs.

CEQA allows for the significance criteria established by the applicable AQMP or air pollution control district to be used to assess the impact of a project on air quality. The SCAQMD has established air pollution emissions criteria for determining the significance of an impact during project construction and operation (see Table 4.3-6). In addition, as discussed above, SCAQMD has developed an interim threshold of 10,000 metric tons for evaluating GHG emissions from stationary and industrial sector projects.

To assist agencies in determining whether a project may generate significant adverse localized air quality impacts, the SCAQMD has developed mass rate look-up tables by source receptor areas (SRAs). These tables are intended to be used as screening tables to determine if construction or operation of a project may result in a violation of an applicable air quality standard. The SCAQMD updated the mass rate look-up tables in July 2008 to reflect the new State nitrogen dioxide standard of 0.18 ppm. Since the SSAB is designated as non-attainment for PM10, mass rate thresholds were determined based on a significance threshold of 10.4 micrograms per cubic meter as designated by the SCAQMD.

Mass rate thresholds for one acre sites in the Coachella Valley (SRA #30) are shown in Table 4.3-7. These thresholds are expressed in pounds per day and are intended for on-site emissions only.

As an interim method for determining significance under CEQA until statewide significance thresholds are established, SCAQMD has developed a tiered GHG significance threshold. SCAQMD recommends that when analyzing significance of GHG emissions, project emissions should include direct, indirect, and to the extent information is available, life cycle emissions during construction and operation. Construction emissions should be amortized over the life of the project, defined as 30 years, and added to operational emissions, and compared to the applicable GHG significance threshold tier. The following bullet points describe the basic structure of staff's tiered GHG significance threshold for stationary source and industrial projects (SCAQMD, 2008e).

- **Tier 1** – consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. For example, SB 97 specifically exempts a limited number of projects until it expires in 2010. If the project qualifies for an exemption, no further action is required. If the project does not qualify for an exemption, then it would move to the next tier.

TABLE 4.3-6
SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Construction	Operation
Mass Daily Thresholds		
NOx	100 lbs/day	55 lbs/day
VOC[a]	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs) and Odor Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Hazard Index ≥ 1.0 (project increment) Hazard Index ≥ 3.0 (facility-wide)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants[b]		
Nitrogen Dioxide 1-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (State)	
PM10 24-hour average	10.4 µg/m^3 (recommended for construction)[c] 2.5 µg/m^3 (operation)	
PM2.5 24-hour average	10.4 µg/m^3 (recommended for construction)[c] 2.5 µg/m^3 (operation)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (State) 9.0 ppm (State/federal)	

lbs/day = pounds per day
ppm = parts per million
µg/m^3 = micrograms per cubic meter
≥ = greater than or equal to

[a] For purposes of this analysis, VOC is equivalent to ROG.
[b] Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
[c] Ambient air quality threshold based SCAQMD Rule 403.

SOURCE: SCAQMD, 1993; SCAQMD, 2009.

TABLE 4.3-7
SCAQMD LOCALIZED SIGNIFICANCE THRESHOLDS

Distance to Receptor (meters)	NOx (lb/day)	CO (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
25	118	878	4	3
50	148	1,387	13	5
100	211	2,565	35	10
250	334	6,021	80	24
500	651	24,417	214	105

lbs/day = pounds per day

SOURCE: SCAQMD, 2008d.

- **Tier 2 –** consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines Sections 15064(h)(3), 15125(d), or 15152(a). The GHG reduction plan must, at a minimum, comply with AB 32 GHG reduction goals, include emissions estimates agreed upon by either CARB or the AQMD, have been analyzed under CEQA, and have a certified Final CEQA document. Further, the GHG reduction plan must include a GHG emissions inventory tracking mechanism, process to monitor progress in achieving GHG emission reduction targets, and a commitment to remedy the excess emissions if GHG reduction goals are not met (enforcement).

  If the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If the project is not consistent with a local GHG reduction plan, there is no approved plan, or the GHG reduction plan does not include all of the components described above, the project would move to Tier 3.

- **Tier 3 –** establishes a screening significance threshold level to determine significance using a 90 percent emission capture rate approach as described above.

  The 90 percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the following methodology. Using SCAQMD's Annual Emission Reporting (AER) Program staff compiled reported annual natural gas consumption for 1,297 permitted facilities for 2006 through 2007 and rank-ordered the facilities to estimate the 90th percentile of the cumulative natural gas usage for all permitted facilities. Approximately 10 percent of facilities evaluated comprise more than 90 percent of the total natural gas consumption, which corresponds to 10,000 metric tons of CO_2e emissions per year (the majority of combustion emissions is comprised of CO_2). This value represents a boiler with a rating of approximately 27 million British thermal units per hour (mmBtu/hour) of heat input, operating at an 80 percent capacity factor. It should be noted that this analysis did not include other possible GHG pollutants such as CH_4 and N_2O, a life-cycle analysis, mobile sources, or indirect electricity consumption. Therefore, when implemented, staff's recommended interim proposal is expected to capture more than 90 percent of GHG emissions from stationary source projects.

  If the project exceeds the GHG screening significance threshold level and GHG emissions cannot be mitigated to less than the screening level, the project would move to Tier 4.

- **Tier 4 –** consists of a decision tree approach that allows the lead agency to choose one of three compliance options based on performance standards. *(For the purposes of Board consideration, Tier 4 is not recommended for approval at this time.)*

  The purpose of Tier 4 is to provide a means of determining significance relative to GHG emissions for very large projects that include design features and or other measures to mitigate GHG emissions to the maximum extent feasible, but residual GHG emissions still exceed the interim Tier 3 screening levels. In this situation, since no additional project-related GHG emission reductions are feasible, staff is considering whether it is reasonable to consider that residual emissions are not significant. The intent of the Tier 4 compliance options is to encourage large projects to implement the maximum feasible GHG reduction measures instead of shifting to multiple smaller projects that may forego some design efficiencies that can more easily be incorporated into large projects than small projects.

CARB's interim GHG significance threshold proposal incorporates a similar, but modified approach for determining GHG significance along with other suggested approaches that may have merit to consider and incorporate into AQMD staff's recommended interim proposal. There are also policy and legal questions that need to be further resolved before adopting such an approach.

- **Tier 5 –** under this tier, the project proponent would implement offsite mitigation (GHG reduction projects) to reduce GHG emission impacts to less than the proposed screening level. Any offsite mitigation measures that include purchase of offsets would require the project proponent provide offsets for the life of the project, which is defined as 30 years. If the project proponent is unable to implement offsite GHG reduction mitigation measures to reduce GHG emission impacts to less than the screening level, then GHG emissions from the project would be considered significant. Since it is currently uncertain how offsite mitigation measures, including purchased offsets, interact with future AB 32 Scoping Plan measures, the AQMD would allow substitution of mitigation measures that include an enforceable commitment to provide mitigation prior to the occurrence of emissions. The intent of this provision is to prevent mitigating the same emissions twice.

4.3.3 Applicant Proposed Measures

SCE has proposed the following applicant proposed measures (APMs) to minimize emissions from the Proposed Project. The impact analysis assumes that the APMs would be implemented to reduce air quality impacts as discussed below.

APM AQ-1. Control Exhaust Emissions. Use ultra-low sulfur diesel fuel (e.g., fewer than 15 parts per million).

APM AQ-2. Control Exhaust Emissions. Use of clean-burning on- and off-road diesel engines. Where feasible, heavy duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) will be utilized.

APM AQ-3. Control Exhaust Emissions. Construction workers will carpool when possible.

APM AQ-4. Control Exhaust Emissions. Restrict vehicle idling time to less than 10 minutes whenever possible.

APM AQ-5. Control Exhaust Emissions. Properly maintain mechanical equipment.

APM AQ-6. Minimize Diesel Particulate Matter. Use particle traps and other appropriate controls to reduce diesel particulate matter (DPM) where possible. Utilize equipment such as specialized catalytic converters (oxidation catalysts) to control approximately 20 percent of DPM, 40 percent of CO, and 50 percent of hydrocarbon emissions.

APM AQ-7. Fugitive Dust Control Measures. Implement feasible fugitive dust control measures as provided in SCAQMD Rule 403.

APM AQ-8. Construction Operations. As feasible, restrict construction operations during the morning hours and during high wind events, when NOx emissions are more likely to contribute to O_3 formation.

APM AQ-9. Construction Scheduling. Efficiently schedule staff and daily construction activities to minimize the use of unnecessary/duplicate equipment when possible.

APM AQ-10. Emissions Reduction. To reduce simultaneous project-related NOx, PM10, and PM2.5, emissions from on- and off-road heavy construction equipment, given the constraints of the construction schedule, SCE shall phase project construction, to the extent feasible, so that off-site disposal of excavated material from Proposed Project area grading and excavation does not occur simultaneously with transmission and subtransmission line and substation construction or upgrade activity (including, but not limited to, access road grading, excavation for tower and pole bases, crane pads, tower and pole delivery, or tower and pole erection). During transmission and subtransmission line construction, SCE shall phase the project construction schedule, to the extent feasible, so that grading and excavation for site access, tower and pole bases, or crane pads do not occur simultaneously with tower or pole delivery or erection.

4.3.4 Air Quality Impacts and Mitigation Measures

Approach to Analysis

This section presents an analysis of the potential air quality impacts associated with the construction and operation of the Proposed Project. Criteria pollutant emissions from construction equipment exhaust and generation of particulate matter (fugitive dust) are the primary concerns in evaluating short-term air quality impacts. Long-term impacts associated with criteria pollutants, however, would be negligible since emission-related activities associated with Proposed Project operations and maintenance would be limited to periodic maintenance and inspection trips similar to what is occurring now along the existing subtransmission and transmission line ROWs.

Construction of the Proposed Project would require a variety of construction and earth moving equipment. Exhaust pollutants would be emitted during construction activities from motor-driven construction equipment, construction vehicles, and workers' vehicles, and fugitive dust would be generated by ground disturbing activities as well as from heavy truck travel on paved and unpaved roads. The "worst-case" scenario for daily emissions during project construction is estimated to generate the following criteria pollutant emissions:

- ROG: 49.2 pounds per day;
- CO: 218.9 pounds per day;
- NOx: 451.1 pounds per day;
- SOx: 1.7 pounds per day;
- PM10: 298.6 pounds per day; and
- PM2.5: 76.2 pounds per day.

Projected construction emissions are presented in Table 4.3-8, broken down by construction components. Emissions from construction components that would be expected to occur simultaneously were combined to determine the "worst-case" scenario for daily emissions. As shown in Table 4.3-9, the worst-case day emissions for all criteria pollutants except SOx would occur in the third quarter of 2010 when construction of the proposed upgrades at Mirage Substation, Devers Substation, and Eisenhower Substation, and the proposed Mirage-Santa Rosa

115 kV subtransmission line would overlap. Worst-case emissions of SOx would occur during the second quarter of 2011 when upgrades at the Mirage Substation, Garnet Substation, and Tamarisk Substation, and construction of the proposed Devers-Coachella Valley 220 kV Loop-In would overlap.

Off-road and on-road mobile source emission factors obtained from the SCAQMD (SCAQMD, 2008a and 2008b) were used to estimate exhaust emissions. The SCAQMD emission factors for off-road vehicles were determined using CARB's OFFROAD Model. Emission factors for on-road trucks and worker vehicles were derived using CARB's EMFAC2007 Model to estimate the pounds of pollution emitted per mile of travel. Helicopter emission factors for the T53-L-11D helicopter that would be used during construction of the proposed Devers-Coachella Valley 220 kV Loop-In were obtained from USEPA's *Procedures for Emissions Inventory Preparation*, Volume IV, Mobile Sources (USEPA, 1992).

The USEPA document AP-42 was used to calculate fugitive dust emissions from construction activities. Fugitive dust emissions were evaluated for the following activities: general site preparation and grading; travel on paved roads; travel on unpaved roads; and foundation digging. For general site preparation and earth-moving activities, AP-42 identifies a general emission rate of 80 pounds of total suspended particulate per acre per day. According to the SCAQMD, approximately 48.9 percent of total suspended fugitive particulate matter generated during general construction and demolition is made up of particulate matter less than or equal to 10 microns in diameter (PM10) and 20.8 percent of this PM10 is less than 2.5 microns in diameter (PM2.5) (SCAQMD, 2006). Based on these percentages it was assumed that the emission rate for fugitive dust during general site preparation would be approximately 39 pounds per acre per day of PM10 and eight pounds per acre per day of PM2.5.

Based on SCAQMD's recommended mitigation measures and control efficiencies, it was assumed that 60 percent of fugitive dust from general site preparation would be controlled by watering disturbed areas. For travel on unpaved roads it was assumed that 55 percent of fugitive dust could be controlled by watering roads at least twice per day. By sweeping paved roads it was assumed that 16 percent of fugitive dust from travel on local roads and 26 percent of fugitive dust from travel on collector and arterial roads would be controlled (SCAQMD, 2008c).

Construction components evaluated include the following: construction of the Devers-Coachella Valley 220 kV Loop-In; construction of the 115 kV subtranmission lines, including the associated reconfigurations; modifications to existing substations; and telecommunications equipment upgrades. Fugitive dust and combustion emissions from each of these components are described in more detail below. Maximum daily emissions from construction components that would overlap were combined to determine the maximum daily regional emissions from construction of the Proposed Project.

Proposed 115 kV Subtransmission Lines and Reconfigurations

Construction of the proposed 115 kV subtransmission lines, including the three proposed pole reconfigurations, would also generate fugitive dust and combustion emissions during grading of

access roads, travel on unpaved and paved roads, foundation digging for pole installation, and other site preparation activities.

Fugitive dust emissions from construction of the proposed 115 kV subtransmission lines were determined using the same methods that were used to determine the fugitive dust emissions that would be associated with the 220 kV loop-in. Combustion emissions were also calculated based on the proposed equipment lists for each activity, as described in Chapter 2: Project Description. Maximum daily emissions from construction of the 115 kV subtransmission lines and associated reconfigurations are shown in Table 4.3-8 below.

Devers-Coachella Valley 220 kV Loop-In

Construction of the proposed Devers-Coachella Valley 220 kV Loop-In would involve installation of eight new lattice steel towers (LSTs), one new tubular steel pole (TSP), and approximately 9,780 feet of single-circuit 220 kV transmission line. Additionally, seven existing LSTs, one existing TSP, and approximately 4,590 feet of existing 220 kV transmission line would be removed as part of the loop-in. These activities would result in fugitive dust emissions generated during ground disturbing activities and combustion emissions from off-road construction equipment as well as from worker and delivery vehicles.

Fugitive dust emissions were calculated for foundation digging for the proposed towers and poles as well as for travel on unpaved and paved roads. The AP-42 emission factor for fugitive emissions from drilling holes at surface coal mines was used to determine fugitive emissions from foundation digging. It was assumed that approximately ten holes would be drilled per day for the purpose of calculating fugitive dust emissions. Fugitive emissions from travel on paved and unpaved roads were calculated based on the longest distance traveled in a given day along the proposed transmission line alignments. The percentage of roads assumed to be unpaved or paved were determined based on existing road characteristics in the project vicinity.

Combustion emissions were calculated based on the equipment listed in Chapter 2, *Project Description*. Equipment used for construction of the proposed 220 kV loop-in is broken into different groups depending on the construction activity such as installation of foundations, tower assembly, and conductor pulling. The combustion emissions for each activity were calculated individually to determine the maximum daily combustion emissions that would result during construction of the proposed 220 kV loop-in. Maximum daily emissions for construction of the 220 kV loop-in are shown in Table 4.3-8 below.

Proposed Substation Upgrades

As discussed previously, the fugitive dust emission rates of 39 pounds per acre per day of PM10 and 8 pounds per acre per day of PM2.5 were used to estimate fugitive dust emissions from site grading at the substations. It was assumed that site grading at each of the applicable substations would take place over one day.

Combustion emissions from substation upgrades were estimated based on the equipment list provided in Chapter 2. Table 4.3-8 includes a summary of emissions that is estimated to be generated during modifications of each individual substation.

Telecommunications Equipment Upgrade

Emissions from telecommunications upgrades would occur primarily from combustion equipment used for installation of equipment. Fugitive emissions would result from vehicles traveling on paved and unpaved roads to access each individual pole. Table 4.3-8 includes a summary of emissions estimated to be generated during telecommunications equipment upgrades.

a) Conflict with or obstruct implementation of the applicable air quality plan.

The SCAQMD's most recent AQMP was adopted in June of 2007. The purpose of the 2007 AQMP is to set forth a comprehensive program that will lead the region into compliance with federal 8-hour ozone and PM2.5 air quality standards. The 2007 AQMP also specifically addresses transport issues relative to the Coachella Valley Planning Area. To achieve compliance with applicable standards, the 2007 AQMP outlines stationary and mobile source control measures and also relies on State and federal standards to help achieve compliance with applicable standards.

Construction of the Proposed Project would be conducted in compliance with applicable federal, State, and local requirements. Operation of the Proposed Project would involve minimal emissions from vehicle trips made to inspect and maintain the project. Furthermore, the Proposed Project would not induce or cause population growth, and therefore would not affect population growth assumptions that were considered when developing the 2007 AQMP. Therefore, the Proposed Project would not obstruct the implementation of the currently approved AQMP (No Impact).

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact 4.3-1: Construction activities would generate emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. *Significant unmitigable* (Class I)

Estimated maximum daily emissions associated with construction of each component of the Proposed Project are presented in Table 4.3-8. On-site exhaust emissions include exhaust from heavy duty construction equipment that would be used to construct each component of the Proposed Project. Fugitive dust emissions would occur as a result of ground disturbance and vehicle travel that would happen in the vicinity of the various Proposed Project locations. Employee vehicle emissions are those that would be generated by workers that would commute to and from the various Proposed Project sites. Refer to Appendix A for the calculation sheets that were used to estimate the Proposed Project construction emissions.

TABLE 4.3-8
MAXIMUM DAILY CONSTRUCTION EMISSIONS BY PROJECT COMPONENT

	Emissions (lbs/day)					
Component	**CO**	**NOx**	**ROG**	**SOx**	**PM10**	**PM2.5**
Transmission Line Loop-In						
Fugitive Dust	0.00	0.00	0.00	0.00	137.85	27.53
On-site vehicle Exhaust	69.14	143.32	13.40	1.54	7.04	6.48
Employee Vehicles	6.33	0.66	0.65	0.01	0.05	0.03
Total	*75.47*	*143.98*	*14.05*	*1.55*	*144.94*	*34.03*
Subtransmission Line[a]						
Fugitive Dust	0.00	0.00	0.00	0.00	236.14	48.20
On-site vehicle Exhaust	78.53	230.94	20.06	0.24	9.84	9.05
Employee Vehicles	24.79	2.59	2.54	0.03	0.20	0.12
Total	*103.32*	*233.53*	*22.60*	*0.27*	*246.18*	*57.37*
Devers Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	12.85	2.73
On-site vehicle Exhaust	21.48	44.77	5.21	0.05	2.26	2.08
Employee Vehicles	3.16	0.33	0.32	0.00	0.03	0.02
Total	*24.64*	*45.10*	*5.53*	*0.05*	*15.14*	*4.83*
Mirage Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	15.52	3.23
On-site vehicle Exhaust	51.96	119.97	13.43	0.12	6.05	5.57
Employee Vehicles	12.13	1.27	1.24	0.01	0.10	0.06
Total	*64.09*	*121.24*	*14.67*	*0.13*	*21.67*	*8.85*
Concho Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
Total	*3.18*	*4.21*	*0.50*	*0.00*	*0.19*	*0.18*
Indian Wells Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
Total	*3.18*	*4.21*	*0.50*	*0.00*	*0.19*	*0.18*
Santa Rosa Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
Total	*3.18*	*4.21*	*0.50*	*0.00*	*0.19*	*0.18*
Eisenhower Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	12.90	2.74
On-site vehicle Exhaust	23.66	51.30	6.05	0.05	2.64	2.43
Employee Vehicles	3.16	0.33	0.32	0.00	0.03	0.02
Total	*26.82*	*51.63*	*6.37*	*0.05*	*15.57*	*5.19*
Farrell Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	13.32	2.82
On-site vehicle Exhaust	23.66	51.30	6.05	0.05	2.64	2.43
Employee Vehicles	3.16	0.33	0.32	0.00	0.03	0.02
Total	*26.82*	*51.63*	*6.37*	*0.05*	*15.99*	*5.27*

TABLE 4.3-8 (Continued)
MAXIMUM DAILY CONSTRUCTION EMISSIONS BY PROJECT COMPONENT

Component	Emissions (lbs/day)					
	CO	NOx	ROG	SOx	PM10	PM2.5
Garnet Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	4.19	0.90
On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
Total	*3.18*	*4.21*	*0.50*	*0.00*	*4.38*	*1.08*
Thornhill Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	4.19	0.90
On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
Total	*3.18*	*4.21*	*0.50*	*0.00*	*4.38*	*1.08*
Tamarisk Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.06	0.01
On-site vehicle Exhaust	17.88	34.10	4.24	0.04	1.79	1.65
Employee Vehicles	2.11	0.22	0.22	0.00	0.02	0.01
Total	*19.99*	*34.32*	*4.46*	*0.04*	*1.87*	*1.67*
Telecommunications Line						
Fugitive Dust	0.00	0.00	0.00	0.00	51.61	10.80
On-site vehicle Exhaust	20.37	62.28	5.65	0.06	2.98	2.74
Employee Vehicles	2.11	0.22	0.22	0.00	0.02	0.01
Total	*22.48*	*62.50*	*5.87*	*0.06*	*54.61*	*13.55*

lbs/day = pounds per day

[a] The emissions value is the daily maximum that would occur during construction of any of the subtransmission line sections.

SOURCES: SCE, 2008 and ESA, 2009.

As discussed previously, emissions from overlapping construction components were added to determine the maximum daily emissions that would occur during construction of the Proposed Project. Table 4.3-9 shows the maximum daily construction emissions based on construction phasing and overlap as provided by SCE.

As shown in Table 4.3-9, maximum daily emissions of CO, ROG, and SOx are all below the SCAQMD regional significance thresholds, thus represent a less than significant impact in regards to regional air quality. However, maximum daily emissions of NOx, PM10, and PM2.5 would exceed the SCAQMD regional significance thresholds. Therefore, construction of the Proposed Project would result in a potentially significant temporary impact to regional air quality.

To reduce fugitive dust emissions, SCE has committed to implementing APM AQ-7, which requires SCAQMD Rule 403 fugitive dust control measures to be implemented during construction (see Section 4.3.3, above). However, APM AQ-7 is superseded by Mitigation Measure 4.3-1a (see below), which includes specific control measures identified in the Coachella Valley Fugitive Dust Control Handbook. Regarding exhaust emissions, SCE has committed to implementing APM AQ-1 through APM AQ-6 as well as APM AQ-8 through APM AQ-10 to

TABLE 4.3-9
MAXIMUM DAILY COMBINED CONSTRUCTION EMISSIONS

Quarter	Construction Phases Occurring Simultaneously[a]	Combined Maximum Daily Emissions (lbs/day)[b,c]					
		CO	NOx	ROG	SOx	PM10	PM2.5
2nd Quarter, 2010	Subtransmission Line (Mirage-Santa Rosa)	103.3	**233.5**	22.6	0.3	**246.2**	**57.4**
3rd Quarter, 2010	Mirage Substation, Devers Substation, Eisenhower Substation	115.6	**217.6**	26.6	0.2	52.4	18.9
3rd Quarter, 2010	Mirage Substation, Devers Substation, Eisenhower Substation, Subtransmission Line (Mirage-Santa Rosa-Tamarisk)	218.9	**451.1**	49.2	0.5	**298.6**	**76.2**
3rd Quarter, 2010	Mirage Substation, Concho Substation, Eisenhower Substation, Subtransmission Line (Mirage-Santa Rosa-Tamarisk)	197.4	**410.2**	44.1	0.5	**283.6**	**71.6**
4th Quarter, 2010	Mirage Substation, Concho Substation, Farrell Substation, Subtransmission Line (Mirage-Santa Rosa-Tamarisk)	197.4	**410.2**	44.1	0.5	**284.0**	**71.7**
1st Quarter, 2011	Mirage Substation, Indian Wells Substation, Farrell Substation, Subtransmission Line (Mirage-Devers-Capwind-Tamarisk)	197.4	**410.2**	44.1	0.5	**284.0**	**71.7**
1st Quarter, 2011	Mirage Substation, Indian Wells Substation, Thornhill Substation, Subtransmission Line (Mirage-Devers-Capwind-Tamarisk)	173.8	**362.8**	38.3	0.4	**272.4**	**67.5**
1st Quarter, 2011	Mirage Substation, Indian Wells Substation, Thornhill Substation, Subtransmission Line (Mirage-Devers-Capwind-Tamarisk)	173.8	**362.8**	38.3	0.4	**272.4**	**67.5**
1st Quarter, 2011	Mirage Substation, Santa Rosa Substation, Thornhill Substation, Subtransmission Line (Mirage-Devers-Capwind-Tamarisk)	173.8	**362.8**	38.3	0.4	**272.4**	**67.5**
1st Quarter, 2011	Mirage Substation, Santa Rosa Substation, Thornhill Substation, Subtransmission Line (Mirage-Concho)	173.8	**362.8**	38.3	0.4	**272.4**	**67.5**
2nd Quarter, 2011	Mirage Substation, Santa Rosa Substation, Tamarisk Substation, Subtransmission Line (Mirage-Concho)	190.6	**392.9**	42.2	0.4	**269.9**	**68.1**
2nd Quarter, 2011	Mirage Substation, Garnet Substation, Tamarisk Substation, Subtransmission Line (Mirage-Concho)	190.6	**392.9**	42.2	0.4	**274.1**	**69.0**
2nd Quarter, 2011	Mirage Substation, Garnet Substation, Tamarisk Substation, Transmission Line (Devers-Mirage #2)	162.8	**303.4**	33.7	1.7	**172.9**	45.6
2nd Quarter, 2011	Transmission Line (Devers-Mirage #2, Coachella Valley-Mirage)	75.5	**144.0**	14.0	1.5	144.9	34.0
Maximum Combined Daily Emissions		*218.9*	***451.1***	*49.2*	*1.7*	***298.6***	***76.2***

lbs/day = pounds per day

[a] Based on schedule provided by SCE.
[b] Values above the applicable regional significance thresholds are shown in **BOLD.**
[c] PM10 and PM2.5 emissions rates are based on the assumption that Mitigation Measure 4.3-1a would be implemented.

SOURCE: SCE, 2008.

help reduce emissions from on and off-road vehicles (see Section 4.3.3, above). In addition to these APMs, it is recommended that SCE submit an emission reduction plan to the CPUC for review and approval (see Mitigation Measure 4.3-1b, below).

Mitigation Measure 4.3-1a: Fugitive Dust Control Plan. SCE or its construction contractor shall prepare a fugitive dust control plan prior to conducting active construction activities. The plan shall include, at a minimum, the following fugitive dust control measures, which are based on Best Available Control Measures as outlined in the Coachella Valley Fugitive Dust Control Handbook.

- *Backfilling*. Stabilize backfill material when not actively handling, during handling and at completion of activities. This may be achieved by mixing backfill soil with water prior to moving, dedicating a water truck or high capacity hose to backfilling equipment, emptying loader buckets slowly so that no dust plumes are generated and/or by the minimizing drop height from the loader bucket.

- *Clearing and grubbing*. Maintain stability of soil through pre-watering of site prior to, during, and immediately after clearing and grubbing. This may be achieved by maintaining live perennial vegetation and desert pavement where possible and by applying water in sufficient quantities to prevent generation of dust plumes.

- *Cut and fill*. Pre-water soils prior to and following cut and fill activities. This may be achieved by pre-watering with sprinklers or water trucks or by using water trucks/pulls to water soil to depth of cut prior to subsequent cuts.

- *Demolition*. Stabilize wind erodible surfaces, surface soil where support equipment and vehicles operate, and loose soil and demolition debris.

- *Disturbed soil*. Stabilize disturbed soil throughout the construction site and between structures. This may be achieved by limiting vehicular traffic and disturbances on soil where possible or by applying water or a stabilizing agent to prevent generation of visible dust plumes.

- *Earth-moving activities*. Pre-apply water to depth of proposed cuts or as necessary to maintain soils in a damp condition. Stabilize soils once earth-moving activities are complete. This may be achieved by installing upwind fencing to prevent material movement, or applying water or a stabilizing agent to prevent generation of visible dust plumes.

- *Importing/exporting of bulk materials.* Stabilize material while loading to prevent fugitive dust emissions, maintain at least six inches of freeboard on haul vehicles, limit vehicular speeds to 15 miles per hour while traveling onsite, stabilize material while transporting and/or unloading to prevent fugitive dust emissions, and comply with Vehicle Code Section 23114. This may be achieved by using tarps or other suitable enclosures on haul trucks, checking belly dump seals regularly and removing any trapped rocks to prevent spillage, complying with track-out prevention requirements and by providing water while loading and unloading to prevent visible dust plumes.

- *Landscaping*. Stabilize soils, materials, and slopes by applying water to materials, maintaining materials in a crusted condition, maintaining an effective cover over

materials, stabilizing sloping surfaces using soil binders, or by hydroseeding areas prior to the rainy season.

- *Staging areas*. Stabilize staging areas during use and at project completion.

- *Stockpiles/bulk material handling*. Stabilize stockpiled materials or install and maintain wind barriers to less than 50 percent porosity on three sides of the pile, such that the barrier is equal to or greater than the pile height. Stockpiles within 100 yards of occupied buildings must not be greater than eight feet in height and stockpiles that are greater than eight feet in height and not covered must have a road bladed top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.

- *Traffic areas for construction activities*. Stabilize all off-road traffic and parking areas and ensure that onsite vehicular traffic does not exceed 15 miles per hour. Stabilize all haul routes and direct construction traffic over established haul routes. This may be achieved by applying gravel or paving haul routes and by using barriers to ensure that construction traffic only uses established routes.

- *Trenching*. Stabilize surface soils where trencher or excavator and support equipment will operate and stabilize soils at completion of trenching activities. Pre-water soils prior to trenching and wash mud and soils from equipment at the conclusion of trenching activities to prevent crusting and drying of soil on equipment.

- *Unpaved roads/parking lots*. Stabilize soils to meet the applicable standards and limit vehicular travel to established paved roads (haul routes) and unpaved parking lots.

- *Weather monitoring/work practices*. Monitor current weather conditions and weather predictions from the SCAQMD's toll free wind forecast system and/or the National Weather Service. Cease all construction activities if fugitive dust emissions exceed 20 percent opacity or if the 100 foot visible plume restrictions cannot be met.

Mitigation Measure 4.3-1b: Exhaust Emissions Control Plan. To ensure and monitor implementation of APMs AQ-1 through AQ-6 and AQ-8 through AQ-10, SCE shall develop an Exhaust Emissions Control Plan outlining how compliance with each of these measures shall be achieved. This plan shall be submitted to the CPUC for review and shall be distributed to all employees and construction contractors prior to commencement of construction activities. The CPUC construction monitor shall monitor compliance with the Plan periodically throughout the duration of construction activities.

Significance after Mitigation: While Mitigation Measures 4.3-1a (Fugitive Dust Control Plan) and 4.3-1b (Exhaust Emissions Control Plan) would reduce emissions of NOx and PM during construction, they would not reduce emissions to a level that would be considered less than significant. Therefore, impacts from construction of the Proposed Project would cause a temporary significant and unmitigable impact to regional air quality.

Impact 4.3-2: Operational activities would generate emissions of criteria pollutants. *Less than significant* (Class III)

Operation of the Proposed Project would not result in new stationary sources of criteria pollutants nor would it increase criteria pollutant emissions from existing stationary sources. Mobile source emission-related activities associated with Proposed Project operations would be limited to periodic maintenance and inspection trips similar to what is occurring now at the existing line ROWs and substations. Therefore, increases in criteria pollutant emissions from operations of the Proposed Project would be negligible and impacts would be less than significant.

Mitigation: None required.

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c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.

Impact 4.3-3: Construction activities would generate emissions of criteria pollutants that would be considered cumulatively considerable. *Significant unmitigable* (Class I)

Riverside County is designated as non-attainment for ozone and PM10. Long term operations of the Proposed Project would result in negligible emissions, which would not be cumulatively considerable. Construction activities associated with the Proposed Project, as described in this section, could have a temporary impact on regional and localized air quality through short-term increases in criteria pollutant exhaust emissions (e.g., NOx, ROG, CO, SO_2, PM10 and PM2.5) and fugitive dust, which could be cumulatively significant when combined with other projects described in Section 3.6, *Cumulative Projects*. Mitigation Measures 4.3-1a (Fugitive Dust Control Plan) and 4.3-1b (Exhaust Emissions Control Plan) would reduce emissions of criteria pollutants during construction activities, but impacts would remain significant and unmitigable. Therefore, cumulative impacts on regional and localized air quality from overlapping activities during construction the Proposed Project and other projects would also be significant and unmitigable.

> **Mitigation Measures:** Implement Mitigation Measures 4.3-1a (Fugitive Dust Control Plan) and 4.3-1b (Exhaust Emissions Control Plan).

Significance after Mitigation: Implementation of Mitigation Measures 4.3-1a and 4.3-1b would reduce emissions of criteria pollutants to the maximum extent feasible; however, not all potential impacts from construction emissions would be mitigated. Therefore, when considered with other projects, construction of the Proposed Project would result in a cumulatively considerable net increase in criteria pollutants. Impacts would be significant and unmitigable.

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d) Expose sensitive receptors to substantial pollutant concentrations.

Impact 4.3-4: Construction activities would generate emissions of criteria pollutants, exposing local sensitive receptors to pollutant concentrations. *Significant unmitigable* (Class I)

Localized impacts to air quality were evaluated for each component of the Proposed Project based on the maximum daily emissions generated on site and the distance from the site to the nearest receptor. Emissions from worker commute vehicles were not included in this analysis because they are generated on a regional rather than local level. Furthermore, only fugitive dust emissions that would be generated on the project sites were included in this analysis. Therefore, emissions from travel on paved and unpaved roads were not included in the analysis of localized emissions.

Maximum daily onsite emissions and distances to the nearest receptor for each component of the Proposed Project are shown in Table 4.3-10. These emission rates were compared to the localized significance thresholds that are shown in Table 4.3-7. For receptor distances that fall between two categories, the more conservative threshold was used. The most conservative thresholds were used for receptor distances that were less than the lower threshold distance of 25 meters.

TABLE 4.3-10
CONSTRUCTION IMPACTS ON LOCALIZED AIR QUALITY

Phase	Distance to Receptor (m)	Maximum Daily Onsite Emissions[a]			
		CO	NOx	PM10	PM2.5
220 kV Loop-In	25	69.1	**143.3**	**14.8**	**6.9**
Farrell – Garnet Subtransmission Line	25	78.5	**230.9**	**17.6**	**9.4**
Mirage – Santa Rosa Subtransmission Line	31	78.5	**230.9**	**17.6**	**9.4**
Devers Substation	250	21.5	44.8	2.6	2.2
Mirage Substation	50	52.0	119.6	**21.6**	**8.8**
Concho Substation	20	2.1	4.1	0.2	0.2
Indian Wells Substation	35	2.1	4.1	0.2	0.2
Santa Rosa	40	2.1	4.1	0.2	0.2
Eisenhower Substation	50	23.7	51.3	3.0	2.5
Farrell Substation	24	23.7	51.3	3.5	2.6
Garnet Substation	25	2.1	4.1	0.2	0.2
Thornhill Substation	10	2.1	4.1	0.2	0.2
Tamarisk Substation	10	17.9	34.1	2.7	0.2
Telecommunications	30	20.4	62.3	3.0	2.7

NOTES: lbs/day = pounds per day. Emissions are those that would be generated on site only. Values above the regional significance threshold are shown in **BOLD**.

[a] PM10 and PM2.5 emissions rates are based on the assumption that Mitigation Measure 4.3-1a would be implemented.

SOURCE: SCE, 2008.

As shown in Table 4.3-10, construction of the 220 kV loop-in and the subtransmission lines would exceed the applicable localized significance thresholds for NOx, PM10, and PM2.5. Additionally, PM10 and PM2.5 emissions during construction of the Mirage Substation would exceed the applicable localized significance thresholds. Therefore, the construction of these components would generate emissions of criteria pollutants that could potentially expose sensitive receptors to substantial pollutant concentrations.

> **Mitigation Measures:** Implement Mitigation Measures 4.3-1a (Fugitive Dust Control Plan) and 4.3-1b (Exhaust Emissions Control Plan).

Significance after Mitigation: Implementation of Mitigation Measures 4.3-1a and 4.3-1b would reduce emissions of criteria pollutants to the maximum extent feasible; however, emission levels at several locations would continue to be considered significant. Therefore, maximum daily emissions during construction of the Proposed Project would cause significant unmitigable impacts to localized air quality.

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e) Create objectionable odors affecting a substantial number of people.

Impact 4.3-5: Construction of the Proposed Project would create objectionable odors. *Less than significant* (Class III)

Operation of the Proposed Project would not create odorous emissions. However, project construction would require the use of diesel-fueled equipment that would result in exhaust emissions that could be perceived as having an objectionable odor. Since the construction activities would be temporary and spatially dispersed, and generally take place in rural areas, these activities would not affect a substantial number of people. Therefore, impacts from odors generated by construction and operation of the Proposed Project would be less than significant.

Mitigation: None required.

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f, g) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance and/or conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs.

Impact 4.3-6: The Proposed Project would generate short-term and long-term emissions of GHGs that could exceed applicable thresholds of significance or conflict with applicable GHG reduction plans. *Less than significant with mitigation* (Class II)

As with other individual small projects (e.g., projects that are not cement plants, oil refineries, energy generating facilities/providers, co-generation facilities, or hydrogen plants or other stationary combustion sources that emit more than 25,000 metric tons of CO_2e per year), the emissions increases that would result under the Proposed Project would not be expected to

individually have a significant impact on global climate change (CAPCOA, 2008) and the primary concerns would be whether implementation of the Proposed Project would interfere with an applicable GHG reduction plan or exceed an applicable threshold of significance.

Based on a review of recent publications and actions from CARB and the Governor's Office of Planning and Research (OPR) technical advisory regarding analysis of GHGs in CEQA documents (CARB 2007a and 2007b; OPR, 2008; and OPR, 2009) three considerations were used to evaluate whether the Proposed Project's emissions would interfere with an applicable GHG reduction plan or exceed an applicable threshold of significance. Each is discussed in the analysis below. The considerations include:

1. The potential for the project to conflict with the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan, which includes nine Early Action Measures;

2. The relative size of the project's GHG emissions in comparison to CARB's proposed operational significance threshold of 7,000 metric tons per year; and

3. The project's potential to conflict with GHG reduction goals set forth in AB32.

The Proposed Project would generate GHG emissions from a variety of sources. Mobile sources such as trucks, tractors, and passenger vehicles would emit CO_2, CH_4 and N_2O, and circuit breakers may leak SF_6.

Table 4.3-5 presents the 39 Recommended Actions identified to date by CARB in its Climate Change Scoping Plan. Of the 39 measures identified, those that would be considered to be applicable to the Proposed Project would primarily be those actions related to transportation and SF_6 leakage. Consistency of the Proposed Project with these measures is evaluated by each source-type measure below:

> *(T-7) Heavy-Duty Vehicle GHG Emission Reduction (Aerodynamic Efficiency) - Discrete Early Action.* By the year 2014, 100 percent of California trucks and trailers, such as the ones that would be used to haul equipment and materials to construction sites associated with the Proposed Project, would be required to be retrofitted with the best available aerodynamic efficiency technology and/or CARB approved aerodynamic efficiency technology to reduce GHG emissions and improve fuel efficiency. The 100 percent compliance target date would occur after construction of the Proposed Project would be completed. Therefore, there would be no potential for the Proposed Project to conflict with this recommended action.
>
> (*H-6) High GWP Reductions from Stationary Sources – SF_6 Leak Reduction and Recycling in Electrical Application.* SCE is a member of the SF_6 Reduction Partnership for Electric Power Systems. This partnership is a collaborative effort that was formed between the USEPA and the electric power industry to help identify and reduce fugitive emissions of SF_6. Utilities that have joined the partnership have agreed to: estimate current annual SF_6 emissions and annually inventory emissions of SF_6 using an emissions inventory protocol; establish a strategy for replacing older, leakier pieces of equipment; implement SF_6 recycling; ensure that only knowledgeable personnel handle SF_6; and submit annual progress reports to the USEPA. In 2006, the USEPA recognized SCE for its accomplishments in reducing SF_6 emissions. Since SCE joined the SF_6 Reduction

Partnership for Electrical Power Systems in 2001, the company has reduced its SF_6 emissions by 41 percent. Consequently, SCE operations would be considered consistent with the goals of Action H-6.

In addition to assessing the Proposed Project's potential to conflict with the Recommended Actions, the Proposed Project is also compared to CARB's proposed draft operational threshold of 7,000 metric tons per year. Construction of the Proposed Project would result in emissions of GHGs from onsite construction equipment exhaust as well as from off-site worker and delivery truck trip exhaust. The most common GHGs associated with fuel combustion include CO_2, N_2O, and CH_4. Over the entire construction phase of the Proposed Project, approximately 2,494 metric tons of CO_2e would be emitted (most of the emissions would be CO_2 with less than one ton CO_2e associated with CH_4 and N_2O). This represents a temporary increase in SCE's baseline GHG emissions inventory.

A number of applicant proposed measures would help reduce GHG emissions during construction of the Proposed Project. Such measures include encouraging construction workers to carpool (APM AQ-3) and restricting vehicle idling time to less than 10 minutes when possible (APM AQ-4). Additionally, APM AQ-9 would help reduce GHG emissions by minimizing the amount of duplicate/unnecessary equipment through efficient construction scheduling (see Section 4.3.3 for complete text of the APMs). Implementation of Mitigation Measure 4.3-1b would ensure implementation of these measures during construction activities. While these measures would help reduce emissions, the GHG emissions from construction activities would still result in a net increase in SCE's GHG inventory.

Operation of the Proposed Project may cause a small increase in GHG emissions from vehicle travel during inspection and maintenance of the new subtransmission and transmission lines. These emissions would be minimal and would likely be offset by the increased efficiency in electricity transport that would result from construction of the Proposed Project.

In addition to vehicle emissions, SF_6 could unintentionally leak from transformers, circuit breakers, and other equipment within the substations during operations of the Proposed Project. The new sources of SF_6 included as part of the Proposed Project are the 19 new circuit breakers, each of which would contain approximately 50 to 150 pounds of SF_6. The USEPA estimates that among leaking circuit breakers, those manufactured prior to 1999 leak, on average, 2.5 percent of the nameplate capacity, while leaking circuit breakers manufactured in 1999 and later emit less than one percent of nameplate capacity (USEPA, 2006).

In order to determine the net change in SF_6 emissions as a result of the Proposed Project, this analysis makes the following assumptions:

- both old and new circuit breakers would leak, and would leak at the rates estimated by the USEPA; and
- without the Proposed Project, the old circuit breakers would be replaced in five years.

Given these assumptions, the anticipated emission rate from each new circuit breaker during operation would be approximately 1.5 pounds per year, and combined emissions from all new circuit breakers would be 28.5 pounds per year. Six of the 19 new circuit breakers would replace existing circuit breakers. Assuming that the six circuit breakers being replaced leak approximately 2.5 percent of their SF_6 content per year, removing these circuit breakers would reduce SF_6 emissions by approximately 22.5 pounds per year resulting in a net increase of 6.0 pounds of SF_6 per year. However, this net increase only represents each of the first five years, after which it assumed that old circuit breakers would be replaced regardless of the Proposed Project. From five years after construction of the project is complete through the life of the project, there would be a 28.5 pound per year increase in SF_6 emissions. Given that SF_6 has a global warming potential of 23,900, the first five years of operation of the Proposed Project would result in an increase of approximately 65 metric tons of CO_2e per year. From years six through the life of the project, total increase in operational CO_2e emissions would be approximately 309 metric tons of CO_2e per year.

To date, CARB has not given explicit instructions regarding thresholds for construction emissions. However, as discussed previously, the SCAQMD adopted a methodology for determining whether or not GHG emissions from a project would be significant, which includes more guidance related to construction emissions (SCAQMD, 2008e). Under this methodology, construction emissions are amortized over the life of a project (estimated to be 30 years), added to the operational emissions, and compared to the interim GHG significance threshold. In the absence of clear guidance from CARB regarding significance thresholds for construction emissions, the CPUC has determined that the SCAQMD's method is the best available method to determine GHG significance associated with the Proposed Project. Thus, the amortized annual emissions (i.e., 1/30 of the total construction emissions plus net operational emissions) would be as follows:

Years 1 through 5:
65 Operational emissions (metric tons CO_2e)
83 Amortized construction emissions (metric tons CO_2e)
148 metric tons CO_2e

Years 6 through 30:
309 Operational emissions (metric tons CO_2e)
83 Amortized construction emissions (metric tons CO_2e)
392 metric tons CO_2e

While the annualized GHG emissions associated with the Proposed Project would be substantially less than CARB's preliminary draft threshold amount of 7,000 metric tons CO_2e, significance for this project is also based on whether the Proposed Project would be consistent with the State's GHG reduction goal under AB 32, which would require a minimum reduction of 30 percent of GHG emissions by 2020 compared to business as usual conditions. Since annualized GHG emissions would increase by 148 metric tons of CO_2e per year during years 1 through 5 and by 392 metric tons of CO_2e during years 6 through 30, emission rates would not be less than business as usual. In order for the Proposed Project to be consistent with the State's GHG reduction goal, the following mitigation measure is required.

Mitigation Measure 4.3-6: Within 60 days of completion of project construction, SCE shall enter into a binding agreement to purchase carbon offset credits from the California Climate Action Registry (CCAR), or any source that is approved by the CPUC and that is consistent with the policies and guidelines of the California Global Warming Solution Act of 2006 (AB 32), to offset a minimum of 30 percent of the net annualized increase of greenhouse gas emissions from the Proposed Project. The offsets identified in the binding agreement shall be implemented no later than six calendar months from completion of construction. The estimated amount of offsets required is 105.3 metric tons CO_2e per year (i.e., 30 percent of 148 metric tons CO_2e for years 1 through 5 and 30 percent of 392 metric tons of CO_2e for years 6 through 30). However, the exact amount of greenhouse gas emissions to be offset may vary depending on whether any of the construction plans are modified. Within 60 days of completion of the Proposed Project, SCE shall submit a report for the CPUC's review and approval, which shall identify all construction- and operations-related emissions and the offset amounts that will be purchased from approved programs to result in a minimum 30 percent net reduction in annualized GHG emissions.

Significance after Mitigation: Less than Significant.

4.3.5 Cumulative Impacts

Construction of the Proposed Project would have a temporary impact on regional air quality from emissions of PM10, PM2.5, and NOx, which would be cumulatively considerable when combined with construction of other projects proposed in the project vicinity. The SCAQMD regional thresholds were set to limit air pollution and to help the district reach attainment status for PM10, PM2.5, and ozone. By exceeding the regional PM10, PM2.5, and NOx thresholds, emissions generated by the Proposed Project combined with emissions from construction of other projects may contribute to air quality violations in the SSAB and may inhibit the SSAB's ability to achieve attainment status. Although the SSAB is in attainment for nitrogen dioxide, NOx emissions are still a concern as NOx is a precursor to ozone generation. Applicant proposed measures and Mitigation Measures 4.3-1a and 4.3 1-b would help reduce construction emissions; however, impacts would remain significant and would therefore result in a significant short-term unmitigable cumulative impact to regional air quality (Class I).

In addition to regional impacts, construction of the Proposed Project would cause significant unmitigable impacts to localized air quality during construction activities. Proposed construction components that would have a significant impact on nearby receptors include the following: the Farrell-Garnet 115 kV line, the Mirage-Santa Rosa 115 kV line, and the 220 kV loop-in, and the upgrades to Mirage Substation. Construction projects located in close proximity to these components would exacerbate the localized impact if construction activities overlap, and would thus cause a significant impact when considered on a cumulative level.

Construction projects that may overlap with construction of the proposed Farrell-Garnet 115 kV line and are within close proximity of potential construction areas include the Casa Verona Subdivision project and the Palm Springs Classic/Escena project. The Casa Verona Subdivision project would be located approximately 0.3 mile from the proposed Farrell-Garnet 115 kV line

alignment and would include the subdivision of a 6.1 acre parcel into 25 residential lots. This project is currently approved but construction has not commenced. The Palm Springs Classic/Escena project is located approximately 0.1 mile from the Farrell Substation and includes the construction of an 18-hole golf course, a 450 unit hotel, and 1,450 residential units. This project is currently under construction and therefore may overlap with construction of the proposed Farrell-Garnett 115 kV line if construction activities associated with this cumulative project continue into the second quarter of 2010. If construction activities from any of these projects overlap with construction of the proposed Farrell-Garnet 115 kV line, there would be an increased chance of exposing nearby receptors to harmful pollutant concentrations, thus resulting in a cumulatively considerable impact to localized air quality.

The Ponderosa Homes II project, which includes the construction of 237 single family residences, is located within half a mile from the proposed Mirage-Santa Rosa 115 kV line alignment as well as the proposed 115 kV reconfiguration at Gerald Ford Drive and Portola Avenue. This project is currently under construction and could overlap with construction of the Mirage-Santa Rosa 115 kV line, thus resulting in a cumulatively considerable impact on localized air quality.

There is a proposed subdivision that would be located within half a mile from the proposed 220 kV loop-in alignment just north of Ramon Road between Desert Moon Drive and Vista Del Sol. This subdivision would result in the development of 144 residential and commercial lots. If approved, the construction of these units could overlap with construction of the proposed 220 kV loop-in and could result in a cumulatively considerable impact to nearby receptors located between the two project sites.

As demonstrated above, there are a number of proposed and approved construction projects located near the components of the Proposed Project that are expected to cause significant and unmitigable impacts to localized air quality. Therefore, any overlap between construction of the Proposed Project and nearby projects would increase the chances of exposing a receptor to harmful pollutant concentrations. Therefore, the Proposed Project would be cumulatively considerable and cumulative impacts to localized air quality would be significant and unmitigable (Class I).

As discussed under Impact 4.3-6 above, significance of GHG emissions are determined based on whether they would have a cumulatively considerable impact on global climate change. The Proposed Project would generate considerably less than 7,000 metric tons CO_2e per year, and, with mitigation, would not conflict with the State's GHG reduction goals. The Proposed Project's contribution to global climate change would not be cumulatively considerable and cumulative impacts would be mitigated to a less than significant level (Class II).

4.3.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Construction activities associated with implementation of the No Project Alternative could result in the generation of criteria pollutant emissions. Since the amount of infrastructure that would be constructed under the No Project Alternative is unknown, criteria pollutant emissions could be higher or lower than those associated with the Proposed Project. To be conservative, this analysis assumes that emissions associated with construction of the No Project Alternative would be the same as or greater than those associated with the Proposed Project; therefore, impacts from criteria pollutant emissions associated with construction of the No Project Alternative would be significant and unmitigable even after implementation of Mitigation Measures 4.3-1a and 4.3-1b (Class I).

As with the Proposed Project, operation of the No Project Alternative would result in small increments of criteria pollutant emissions. It can be assumed that these impacts would be similar in magnitude to those associated with the Proposed Project; therefore, impacts would be less than significant (Class III).

GHG emissions generated by construction of the No Project Alternative would be similar to criteria pollutant emissions in that they may be higher or lower than those associated with the Proposed Project depending on the infrastructure required. However, since operational GHG emissions would likely be similar in magnitude to those associated with the Proposed Project and due to the fact that GHG construction emissions are amortized over 30 years, it can be assumed that GHG emissions would not be substantially higher than those associated with the Proposed Project. Therefore, it can be assumed that construction and operational emissions associated with the No Project Alternative would not exceed the interim CARB threshold of 7,000 metric tons per year. Implementation of Mitigation Measure 4.3-6 would ensure that the No Project Alternative's GHG emissions under the new transmission scenario would be reduced by 30 percent from business as usual and therefore impacts would be less than significant with mitigation (Class II).

Alternative 2

Alternative 2 would include the construction of approximately six miles of new underground and overhead single-circuit 115 kV subtransmission line between the Farrell and Garnet substations. The installation of approximately three miles of underground transmission facilities would require trench excavation for installation of the new 115 kV conduit duct banks, trench refill,

compaction, and street resurfacing. Such activities would result in more fugitive dust emissions than construction of the Proposed Project. Furthermore, trenching activities associated with the underground portion of Alternative 2 would require the use of a backhoe and compaction equipment as well as haul trucks to export excess trench soil. Road closures during open trenching would impede traffic flow on major streets which would result in additional emissions due to increased vehicle idling. Since impacts from criteria pollutant emissions during construction of Alternative 2 would be higher than those expected from the Proposed Project, it can be assumed that impacts would be significant and unmitigable even after implementation of Mitigation Measures 4.3-1a and 4.3-1b (Class I).

Operation of Alternative 2 could potentially result in higher fugitive dust emissions than the Proposed Project due to increased travel on dirt access roads. Additionally, inspection of the underground segment would require blocking vehicle traffic in the area, thus increasing vehicle emissions during maintenance and inspection activities. Overall, impacts from operation of Alternative 2 would be greater than impacts from operation of the Proposed Project. Nevertheless, emissions of criteria pollutants during operation of Alternative 2 would be relatively minor and intermittent and impacts would be less than significant (Class III).

Odors created during construction and operation of Alternative 2 would be similar to those from the Proposed Project. Although this alignment would pass by a greater number of sensitive receptors, the emissions would be spatially dispersed and impacts would be less than significant with regards to odors (Class III).

The slightly longer length of Alternative 2 (0.2 mile longer than the proposed Farrell-Garnet 115 kV line) and the additional equipment required for construction of the underground portion of the 115 kV line would result in slightly higher emissions of GHGs from construction and operation compared to the Proposed Project. The circuit breakers under this alternative would be the same as for the Proposed Project, thus GHG emissions from SF_6 leaks would be the same as those identified for the Proposed Project. Although GHG emissions from construction and operation of Alternative 2 could be slightly higher than those anticipated for the Proposed Project, it can be assumed that this increase would not lead to a significant unmitigable GHG emissions impact. Implementation of Mitigation Measure 4.3-6 would reduce GHG impacts to less than significant (Class II).

Alternative 3

Alternative 3 would include the construction of approximately 6.5 miles of new underground and overhead single-circuit 115 kV subtransmission line between the Farrell and Garnet substations. The installation of approximately 3.6 miles of underground subtransmission facilities would require trenching activities that would result in more fugitive dust emissions than construction of the Proposed Project. Furthermore, additional equipment required to construct the underground segment of Alternative 3 would substantially increase criteria pollutant emissions from construction activities. Road closures during trenching could impede traffic flow, thus increasing

non-project related emissions due to increased vehicle idling. Since impacts from criteria pollutant emissions during construction of Alternative 3 would be higher than those expected from the Proposed Project, it can be assumed that impacts would be significant and unmitigable even after implementation of Mitigation Measures 4.3-1a and 4.3-1b (Class I).

Inspection of the underground segment would require blocking vehicle traffic in the area, thus increasing vehicle emissions during maintenance and inspection activities. Overall, impacts from operation of Alternative 3 would be greater than impacts from operations of the Proposed Project. Nevertheless, emissions of criteria pollutants during operation of Alternative 3 would be minor and intermittent and impacts would be less than significant (Class III).

Odors created during construction and operation of Alternative 3 would be similar to those from the Proposed Project. Although this alignment would pass by a greater number of sensitive receptors, the emissions would be spatially dispersed and impacts would be less than significant with regards to odors (Class III).

The additional length of Alternative 3 and the additional equipment required for construction of the underground portion of the subtransmission line would result in slightly higher emissions of GHGs from construction and operation compared to the Proposed Project. The circuit breakers under this alternative would be the same as for the Proposed Project, thus GHG emissions from SF_6 leaks would be the same as those identified for the Proposed Project. Although GHG emissions from construction and operation of Alternative 3 would be slightly higher than that that would be anticipated for the Proposed Project, it can be assumed that the increase would not lead to a significant unmitigable GHG emissions impact. Implementation of Mitigation Measure 4.3-6 would reduce GHG impacts to less than significant (Class II).

Alternative 5

Alternative 5 would include the construction of approximately 3.1 miles of mostly new underground single-circuit 115 kV subtransmission line between Mirage Substation and the existing Santa Rosa-Tamarisk 115 kV line. The trench excavation for installation of the underground portion of the line would result in more fugitive dust emissions compared to construction of the Proposed Project and would require additional equipment that would substantially increase criteria pollutant emissions from construction activities. Furthermore, traffic delays due to road closure during trenching would increase criteria pollutant emissions due to non-project related increased vehicle idling. Overall, Alternative 5 would have higher emissions of criteria pollutants during construction activities compared to the Proposed Project and impacts would be significant and unmitigable even after implementation of Mitigation Measures 4.3-1a and 4.3-1b (Class I).

Operation of Alternative 5 would require the inspection of underground cable and connecting components once every three years. Inspections would impede vehicle traffic on Ramon Road, Monterey Avenue, and Varner Road and would therefore result in higher vehicle emissions from

increased idling. The Proposed Project would require annual inspection, but since the Proposed Project would be constructed in existing SCE ROW, there would not be a net increase in criteria pollutant emissions unless a pole needed to be replaced. Therefore, emissions from operation of Alternative 5 would be greater than those generated during operation of the Proposed Project; however, impacts would still be less than significant (Class III).

Odors created during construction and operation of Alternative 5 would be similar to those from the Proposed Project. Although this alignment would pass by a greater number of sensitive receptors, the emissions would be spatially dispersed and impacts would be less than significant with regards to odors (Class III).

The additional equipment required for construction of the underground portion of the subtransmission line could result in higher emissions of GHGs from construction compared to the Proposed Project. Furthermore, traffic delays during inspection of the underground portion of the line would have the potential to increase emissions during maintenance and inspection activities associated with the alternative. The circuit breakers under this alternative would be the same as for the Proposed Project, thus GHG emissions from SF_6 leaks would be the same as those identified for the Proposed Project. Although GHG emissions from construction of Alternative 5 would be slightly higher than those that would occur under the Proposed Project, it can be assumed that the increase would not lead to a significant unmitigable GHG emissions impact. Implementation of Mitigation Measure 4.3-6 would reduce GHG impacts to less than significant (Class II).

Alternative 6

Alternative 6 would include the construction of approximately 4.2 miles of new underground and overhead single-circuit 115 kV subtransmission line between Farrell Substation and the existing Garnet-Santa Rosa 115 kV ROW, which is approximately 1.6 miles less than the line that would constructed under the Proposed Project. While the overall length of Alternative 6 would be shorter than the Proposed Project it would include installation of approximately one mile of underground subtransmission facilities, which would require more intensive construction activities compared to overhead line construction activities. Installation of underground facilities would require trenching activities that would result in more fugitive dust emissions compared to construction of the same length of overhead line facilities. Furthermore, additional equipment required to construct the underground segment of Alternative 6 may increase criteria pollutant emissions from construction activities. Road closure during trenching activities would impede traffic flow on major streets and would result in greater emissions due to increased vehicle idling. However, given the moderately shorter length of Alternative 6 compared to the Proposed Project, overall emissions that would be associated with Alternative 6 would be approximately the same as those that would occur under the Proposed Project. Impacts would be significant and unmitigable after implementation of Mitigation Measures 4.3-1a and 4.3-1b (Class I).

Operation of Alternative 6 may result in lower fugitive dust emissions from inspection and maintenance activities compared to the Proposed Project because the alternative is shorter length and it would be located in existing franchise locations near paved streets and in existing utility corridors, as opposed to the Proposed Project, which would include approximately 0.6 mile of new dirt access roads. However, inspection of the underground segment would require blocking vehicle traffic in the area, thus increasing vehicle emissions during maintenance and inspection activities. Overall, impacts from operation of Alternative 6 would be comparable to impacts from operation of the Proposed Project. Therefore, emissions of criteria pollutants during operation of Alternative 6 would be less than significant (Class III).

Odors created during construction and operation of Alternative 6 would be similar to those that would occur under the Proposed Project. Although the Alternative 6 alignment would pass by a greater number of sensitive receptors, the emissions would be spatially dispersed and impacts would be less than significant with regards to odors (Class III).

As discussed above under the criteria pollutant discussion, emissions of GHGs from construction of Alternative 6 would be similar to those that would occur under the Proposed Project. The circuit breakers under this alternative would be the same as for the Proposed Project, thus GHG emissions from SF_6 leaks would be the same as those identified for the Proposed Project. GHG emissions from construction of Alternative 6 would be approximately the same as those that would occur under the Proposed Project. Implementation of Mitigation Measure 4.3-6 would reduce GHG impacts to less than significant (Class II).

Alternative 7

Alternative 7 would include the construction of approximately 9.1 miles of a new overhead single-circuit 115 kV subtransmission line between Farrell Substation and the existing Garnet-Santa Rosa 115 kV ROW. This alternative would be greater in length than the Proposed Project and would therefore take longer to construct assuming the same level of daily construction activities. Since impacts from criteria pollutant emissions generated during construction of Alternative 7 would be higher than those expected from the Proposed Project, it can be assumed that impacts would be significant and unmitigable even after implementation of Mitigation Measures 4.3-1a and 4.3-1b (Class I).

Operation of Alternative 7 may result in lower fugitive dust emissions from inspection and maintenance activities than the Proposed Project because the alternative is located in existing franchise locations near paved streets and in existing utility corridors, compared to the Proposed Project which would include 0.6 mile of new dirt access roads. Therefore, it can be assumed that emissions of criteria pollutants during operation of Alternative 7 would be less than significant (Class III).

Odors created during construction and operation of Alternative 7 would be similar to those from the Proposed Project. Although this alignment would pass by a greater number of sensitive

receptors, the emissions would be spatially dispersed and impacts would be less than significant with regards to odors (Class III).

The additional length of Alternative 7 would result in higher emissions of GHGs compared to construction of the Proposed Project. The circuit breakers under this alternative would be the same as for the Proposed Project, thus GHG emissions from SF_6 leaks would be the same as those identified for the Proposed Project. Although GHG emissions from construction of Alternative 7 could be slightly higher than those anticipated for the Proposed Project, it can be assumed that this increase would not lead to a significant unmitigable impact to air quality. Implementation of Mitigation Measure 4.3-6 would reduce GHG impacts to less than significant (Class II).

References – Air Quality

California Air Pollution Control Officers Association (CAPCOA), 2008. CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.

California Air Resources Board (CARB), 2006. Climate Change website (http://www.arb.ca.gov/cc/120106workshop/intropres12106.pdf) accessed June 11, 2008.

CARB, September 2007a. *Draft List of Early Action Measures To Reduce Greenhouse Gas Emissions In California Recommended For Board Consideration*.

CARB, October 2007b. *Expanded List of Early Action Measures To Reduce Greenhouse Gas Emissions In California Recommended For Board Consideration*.

CARB, 2008a. *Ambient Air Quality Standards*, website (http://www.arb.ca.gov/research/aaqs/aaqs2.pdf) accessed October 21, 2009, last updated November 17, 2008.

CARB, 2008b. *Preliminary Draft Staff Proposal. Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act.* Released October 24, 2008.

CARB, 2008c. *Climate Change Scoping Plan: a framework for change*. California Air Resources Board (CARB). Released December, 2008. Retrieved from http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

CARB, 2009a. *Aerometric Data Analysis and Management*, website (http://www.arb.ca.gov/adam/welcome.html) accessed October 21, 2009.

CARB, 2009b. *California Greenhouse Gas Inventory for 2000-2006 – Summary by IPCC Category*, (http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_ipcc_00-06_sum_2009-03-13.pdf), accessed June 26, 2009, last updated Friday March 13, 2009.

California Climate Action Registry (CCAR), 2009. *Annual Emissions Report – Southern California Edison,* October 22, 2009.

City of Cathedral City, 2002. *City of Cathedral City General Plan, Chapter 4 – Environmental Resources, Air Quality Element*, adopted July 31, 2002.

City of Cathedral City, 2008. *Cathedral City Municipal Code, Chapter 11.96, Noise Control.* Accessed online (http://www.qcode.us/codes/cathedralcity/) June 12, 2008.

City of Indian Wells, 1996. *Indian Wells General Plan, Chapter IIIA – Resource Management, Conservation and Open Space*, Adopted February 1, 1996.

City of Indian Wells, 2008. *Indian Wells Municipal Code, Chapter 8.20, Fugitive Dust Control*. Accessed online (http://qcode.us/codes/indianwells/) June 18, 2008.

City of Palm Desert, 2004. *City of Palm Desert General Plan, Environmental Resources Chapter, Air Quality Element*, adopted March 15, 2004.

City of Palm Desert. 2008. *Palm Desert Municipal Code, Chapter 24.12, Fugitive Dust (PM10) Control*, Accessed online (http://www.qcode.us/codes/palmdesert/) June 12, 2008.

City of Palm Springs, 2007. *Palm Springs General Plan. Chapter 7 – Air Quality Element*, adopted October 2007.

City of Palm Springs. 2008. *Palm Springs Municipal Code, Chapter 8.50, Fugitive Dust Control.* Accessed online (http://www.qcode.us/codes/palmsprings/) June 11, 2008.

City of Rancho Mirage, 2005. *Rancho Mirage General Plan, Chapter 6 – Air Quality Element,* adopted November 2005.

City of Rancho Mirage, 2008. *Rancho Mirage Municipal Code, Chapter 7.01, Control of PM10, Fugitive Dust and Other Emissions.* Accessed online (http://www.amlegal.com/nxt/gateway.dll/California/ranchomirage/ranchomiragemunicipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:ranchomirage_ca) June 12, 2008.

Governor's Office of Planning and Research (OPR), 2008. CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review. Sacramento, CA: OPR. Retrieved October 23, 2008, from http://opr.ca.gov/index.php?a=ceqa/index.html.

OPR, 2009. *CEQA Guidelines Sections Proposed to be Added or Amended*, submitted to Natural Resources Agency on April 13, 2009, accessed online (http://www.opr.ca.gov/ceqa/pdfs/PA_CEQA_Guidelines.pdf), November 13, 2009.

Intergovernmental Panel on Climate Change (IPCC), 2001. Climate Change 2001: Working Group I: The Scientific Basis, Section F.5, Table 4; http://www.grida.no/climate/ipcc%5Ftar/wg1/032.htm#f5, accessed June 11, 2008.

Riverside County, 2003. *Riverside County General Plan – Chapter 9: Air Quality Element*, adopted October 7, 2003.

South Coast Air Quality Management District (SCAQMD), 1993. *CEQA Air Quality Handbook*, April 1993.

SCAQMD, 2006. *Final Methodology to Calculate PM2.5 and PM2.5 Significance Thresholds, Appendix A – Updated CEIDARS Table with PM2.5 Fractions*, October 2006.

SCAQMD, 2008a. *Off-road Mobile Source Emission Factors*, Accessed online (http://www.aqmd.gov/CEQA/handbook/offroad/offroad.html) June 19, 2008, by ESA for review of SCE calculations.

SCAQMD, 2008b. *EMFAC 2007 (v2.3) Emission Factors (On-Road)*, Accessed online (http://www.aqmd.gov/CEQA/handbook/onroad/onroad.html) June 19, 2008, by ESA for review of SCE calculations.

SCAQMD, 2008c. *Mitigation Measures and Control Efficiencies, Fugitive Dust*, Accessed online (http://www.aqmd.gov/CEQA/handbook/mitigation/fugitive/MM_fugitive.html) June 20, 2008.

SCAQMD, 2008d. *Localized Significance Threshold Methodology, Appendix C – Mass Rate LST Look-up Table*, revised July 2008.

SCAQMD, 2008e. *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*, accessed online (http://www.aqmd.gov/hb/2008/December/081231a.htm), last updated November 26, 2008.

SCAQMD, 2009. *SCAQMD Air Quality Significance Thresholds*, website (http://www.aqmd.gov/CEQA/handbook/signthres.pdf) accessed October 23, 2009, last revised March 2009.

Southern California Edison (SCE), 2008. *Proponents Environmental Assessment: Devers-Mirage 115 kV Subtransmission System Split Project, Appendix F1: Air Quality Calculations*, January 2008.

USEPA (United States Environmental Protection Agency), 1992. *Procedures for Emission Inventory Preparation, Volume IV, Mobile Sources*, Accessed online (http://www.epa.gov/oms/invntory/r92009.pdf) June 19, 2008.

USEPA, 2006. SF6 Leak Rates from High Voltage Circuit Breakers – U.S. EPA Investigates Potential Greenhouse Gas Emissions Source. IEEE Power Engineering Society General Meeting, Montreal, Quebec, Canada, June 2006. Obtained online (http://www.epa.gov/electricpower-sf6/documents/leakrates_circuitbreakers.pdf).

WRCC (Western Regional Climate Center), 2009a. *Climate of California Narrative*, website (http://www.wrcc.dri.edu/narratives/CALIFORNIA) accessed on October 21, 2009.

WRCC, 2009b. *Period of Record Monthly Climate Summaries for Palm Springs, California*, website (http://www.wrcc.dri.edu/summary/Climsmsca.html) accessed on October 21, 2009.

4.4 Biological Resources

4.4.1 Setting

The setting information for this section was compiled based on Environmental Science Associates field reconnaissance of the Proposed Project components and alternatives. Site visits were conducted by Environmental Science Associates biologists Suk Ann Yee on 3/21/08 and Mitchell Jenkins on 06/11/08 and 07/16/08. Further information was obtained from a review of the Southern California Edison's (SCE) Proponent's Biological Assessment (2007) and Environmental Assessment (PEA) (2008); biological resources surveys for the Proposed Project and alternative alignments and sites (EPG, 2006a, 2006b, and 2006c; SCE and TRC, 2009a, 2009b, and 2009c); the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP) (CVAG, 2007); resource agency websites and databases (U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Game (CDFG)); and field review and consultation with USFWS Section 7/10 coordinator for the region, Peggy Bartels.

This chapter breaks the Proposed Project components and alternatives into two study areas, Farrell-Garnet and Mirage-Santa Rosa. The Farrell-Garnet study area is in the western portion of the Proposed Project and includes the proposed Farrell-Garnet 115 kV subtransmission line alignment, the proposed transmission line reconfiguration at Date Palm Drive and Varner Road, and the Alternative 2, 3, 6, and 7 alignments. The Mirage-Santa Rosa study area covers the eastern portion of the Proposed Project and includes the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment, the proposed Devers-Coachella 220 kV Loop-In alignment, the proposed reconfiguration at Bob Hope and Dinah Shore Drive, the proposed reconfiguration at Portola Avenue and Gerald Ford Drive, and the Alternative 5 alignment. The proposed substation modifications are within both study areas.

The study areas lie within the Coachella Valley, in west-central Riverside County, California. The biotic community present in the Coachella Valley is xeric and considered part of the Lower Colorado River Valley Subdivision of the Sonoran Desert; an area referred to as the Colorado Desert (Jaeger, 1957; Raven and Axelrod, 1978; Turner and Brown, 1982). Surface elevations of the study area range from approximately 215 to 875 feet (65 to 267 meters). The Lower Colorado River Valley Subdivision characteristically covers broad alluvial valley floors and is dominated by creosote bush (*Larrea tridentata*), in association with white bursage (also called burrobush) (*Ambrosia dumosa*) on gravelly soils, and with big galleta grass (*Pleuraphis rigida*) on finer-textured soils. Washes that dissect valley bottoms of creosote-bush scrub support woodland-like communities of blue palo verde (*Parkinsonia florida*), ironwood (*Olneya tesota*), and several species of shrubs where soils are coarse and rocky. Where soils are finer-textured, mesquite (*Prosopis sp*.) may occur as dominant. Washes may also be inhabited by shrubs such as white burrobrush (also called cheeseweed) (*Hymenoclea salsola*), smoke tree (*Psorothamnus spinosus*), and sweetbush (*Bebbia juncea*).

The Coachella Valley receives great influxes of fine sand washed and blown down from drainages in the San Bernardino and San Jacinto mountains (Griffiths et al., 2002). As a result,

the landscape is spatially and temporally dynamic, with sand deposition and erosion occurring almost daily. Sand deposits form on the lee side of shrub hummocks and other obstructions, providing fine-scale topography across an otherwise flat landscape. Vegetation in the resultant sand dunes is sparse and dominated by creosote bush, sandpaper bush (*Petalonyx thurberi*), and white dalea (*Psorothamnus emoryi*). To reduce the infiltration of sandblows across roads, highways, and railroad tracks, windbreaks of tamarisk (*Tamarix* sp.) have been planted along major vehicular routes (e.g., Interstate 10 [I-10] and Union Pacific Railroad [UPRR] tracks). In addition, some established dune areas have retaining fences designed to minimize (or delay) the movement of sand across the landscape.

The climate of the biological resources study area is typical of the Colorado Desert, with high daytime temperatures, low humidity, and low average annual precipitation. Temperatures are high in the summer, with common maxima near 120 degrees Fahrenheit. Winter maximum temperatures average in the upper 60 degrees Fahrenheit. Daily variations of 30 to 50 degrees are common, because of the minimal cloudiness and lack of vegetative cover to hold heat. Low relative humidity accompanies the high summer temperatures, with daytime relative humidity readings frequently between five and 10 percent. Precipitation occurs primarily in the winter months (from December to February). The Lower Colorado River Valley Subdivision is the driest of the Sonoran Desert subdivisions (Turner and Brown, 1982) because of the high temperatures and low precipitation, with as little as two inches of annual rainfall in some places. The City of Palm Springs receives an average of 5.3 inches of rainfall per year (Turner, 1994).

The primary land uses in the Coachella Valley are open space, residential, commercial, roads and highways, golf resorts, wind power generation stations, an airport, and habitat preserves. In both Palm Springs and Thousand Palms, there is on-going construction of, and plans for, new residential developments and infrastructure. Roads in the area receive a high volume of traffic and serve as feeder routes to I-10.

A series of protected areas have been set aside in the Coachella Valley to preserve dune-endemic plants and animals and to maintain sand transport processes. Of particular relevance to the Proposed Project and alternatives is the CVMSHCP and Coachella Valley fringe-toed lizard (*Uma inornata*) USFWS-designated critical habitat.

The CVMSHCP is split into 21 conservation areas. Of these, the Farrell-Garnet study area partially overlaps with the Whitewater River Floodplain Conservation Area and borders the Willow Hole Conservation Area; and the Mirage-Santa Rosa study area is along the western boundary of the Thousand Palms Conservation Area. The CVMSHCP is discussed below under *Regulatory Framework*. The CVMSHCP supersedes the Coachella Valley Fringe-Toed Lizard Habitat Conservation Plan (HCP) that covers the Farrell-Garnet study area, which is also discussed below under *Regulatory Framework*. USFWS-designated critical habitat for the Coachella Valley fringe-toed lizard is also located north and east of the Mirage Substation, and the Devers-Coachella 220 kV Loop-In would cross through this critical habitat.

Vegetation Communities and Wildlife Habitats

Biological resources are determined largely by vegetation communities and by the related, but not identical, wildlife habitats. Vegetation communities are assemblages of plant species that occur together in the same area, and are defined by species composition and relative abundance.

A dominant feature of the study area is the Whitewater Wash, which is also referred to as the Whitewater River. The floodplain is a large desert wash containing active desert dunes and sand fields, ephemeral sand fields, and some areas of stabilized sand fields. The sand fields and dunes provide habitat for several sand endemic species which are species of special concern discussed below.

The following descriptions of natural vegetation communities in the study areas are based on the Holland classification system (1986).

Sonoran Creosote Bush Scrub (Holland Code 33100)

Sonoran creosote bush scrub is a low, widely spaced natural community characterized by shrubs spaced by bare ground. Ephemeral herbs may flower in the spring if winter rains are sufficient. This habitat is dominated by creosote bush (*Larrea tridentata*) and white bursage. Other species present in this natural community in the project area include white dalea (*Psorothamnus emoryi*), and Meditteranean schizmus (*Schizmus barbatus*).

Sonoran creosote bush scrub is the most common community in the study area, and is present along the portion of the proposed Farrell-Garnet 115 kV alignment north of the UPRR, and along Alternatives 2, 3, 6, and 7. This natural vegetation community is also present along the proposed Mirage-Santa Rosa 115 kV alignment, Devers-Coachella Valley 220 kV Loop-In, and Alternative 5, although it is more disturbed in these areas.

Stabilized and Partially Stabilized Desert Dunes (Holland Code 22200)

Stabilized and partially stabilized desert dunes are sand dune accumulations that are stabilized or partially stabilized by evergreen and/or deciduous shrubs, scattered low annuals, and perennial grasses. These dunes are characterized by prominent dune features, with consistent cover of vegetation. This community may intergrade with active desert dunes in windier sites, and with stabilized and partially stabilized desert sand fields, or sandier phases of creosote bush scrub. This community includes perennial plant species typical of a creosote bush scrub matrix, with perennial shrub species including creosote bush, four-wing saltbush, California croton, and indigo bush. However, the dune characteristics are the defining feature. The total cover of vegetation increases as the dunes are progressively stabilized. Stabilization varies based on input of sand, rainfall, which influences vegetative cover, and other factors (CVAG, 2007).

This natural community is present along the proposed Farrell-Garnet alignment, and Alternatives 2, 3, 6, and 7.

Developed

Developed areas occur where the Proposed Project and alternatives intersect residential or commercial development. In these areas, ornamental trees, lawns, hedges, and golf courses comprise the vegetation, and paved city streets, sidewalks, parking lots, and buildings are the dominant topographic features. Vehicular traffic may be very heavy at times in these areas. The proposed modifications at the Devers Substation, Eisenhower Substation, Farrell Substation, Garnet Substation, Thornhill Substation, Mirage Substation, Concho Substation, Indian Wells Substation, Santa Rosa Substation, and Tamarisk Substation are all within developed areas that lack native habitat. All of the Proposed Project subtransmission lines and alternatives go through at least a portion of developed habitat.

Ruderal

Parts of the Proposed Project and alternatives occur in areas previously developed or routinely disturbed but that have retained a naturalistic setting. Some native vegetation may occur in these areas, such as arroweed (*Pluchea sericea*), fanleaf crinklemat, California croton, brittlebush, and desert sand verbena (*Abronia villosa*). A high proportion of vegetation is comprised of weedy introduced species such as mustard, Russian thistle (*Salsola tragus*), Arabian grass (*Schismus arabicus*), and tamarisk. Soils in these areas tend to be sandy but compacted and exhibit frequent signs of human influence in the forms of litter or off-road vehicle tracks.

The vegetation community in the vicinity of the subtransmission line reconfiguration at the intersection of Date Palm Drive and Varner Road is ruderal. Soils consist of compacted sands with a source for windblown sand existing 0.25 miles to the west. Non-native mustard and Arabian grass are the dominant species within the area surrounding this intersection. This area is impacted by a high volume of street traffic and contains an abundance of litter.

The vegetation community in the vicinity of the subtransmission line reconfiguration at Bob Hope Drive and Dinah Shore Drive is ruderal. The southwestern and southeastern corners are urban and developed, with a vacation resort at the southwestern corner and new construction at the southeastern corner. The northwestern and northeastern corners are vacant lots consisting primarily of bare ground and non-native, early successional plants (e.g., mustard, Russian thistle).

The vegetation community in the vicinity of the subintersection of Portola Avenue and Gerald Ford Drive is ruderal and developed. There is a 1993 California Natural Diversity Database (CNDDB) record for Coachella Valley (CV) milkvetch immediately southeast of this intersection (CDFG, 2009). However, the property owner recently graded the area surrounding this intersection, and the plants present during the 2006 biological surveys consisted only of early successional, non-native annuals.

Sensitive Vegetation Communities

Active Desert Dunes and Sand Fields (Holland Code 22000)

Active sand fields are areas of active sand movement with little or no vegetation, where accumulated sand is not of sufficient depth to form classic formations that characterize dune systems. The distinction between active sand fields and active desert sand dunes is the absence in sand fields of prominent dune landforms. Sand fields may intergrade with active dunes, and stabilized and partially stabilized dunes and sand fields. They may be characterized by hummocks of sand forming behind individual shrubs or clumps of vegetation. Vegetation varies from scant cover of widely scattered shrubs and annual wildflowers to denser shrub cover. This community occurs within a creosote bush scrub matrix. Typical plant species include four wing saltbush, creosote bush, and indigo bush (CVAG, 2007).

Active sand fields are present along portions of the east side of the Gene Autry Trail south of the UPRR where the Farrell-Garnet 115 kV subtransmission line is proposed, as well as east of the proposed Devers-Coachella Valley 220 kV Loop-In. This is considered a sensitive community by CDFG.

Jurisdictional Waters of the U.S., Including Wetlands

Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. They are recognized as important natural systems because of their value to fish and wildlife, and their functions as storage areas for flood flows, groundwater recharge, nutrient recycling, and water quality improvement. Wetlands are defined as areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to saturated soils.

A formal wetland delineation has not been prepared for the Proposed Project or alternatives; however, one primary drainage crosses through the study area, known as the Whitewater Wash. The Whitewater Wash (also called Whitewater River) spans the length of the Coachella Valley. The upper part of the river, in the San Gorgonio Wilderness, is dry throughout most of its length with the exception of its most westerly end, which quickly percolates into the groundwater basin or is diverted for use. The feature is fed by several tributaries, including the San Gorgonio River, Mission Creek, Little and Big Morongo Creeks, and Box Canyon Wash. Within the Farrell-Garnet study area, the bed of the wash is composed of sand fields. The Whitewater Wash is likely a jurisdictional wetland as defined by the Clean Water Act (CWA), and impacts to this potentially jurisdictional feature would be regulated by a CWA Section 401 permit from the Regional Water Quality Control Board (RWQCB), and a CWA section 404 permit from the U.S. Army Corps of Engineers (USACE). In addition, this feature is under the jurisdiction of CDFG, and would require a Streambed Alternation Agreement (see *Regulatory Context*, below) as required by under section 1600 et. seq. of the California Fish and Game Code.

Special-Status Species

Species known to occur on or in the vicinity of the study areas are accorded "special-status" because of their recognized rarity or vulnerability to various causes of habitat loss or population decline. Some of these receive specific protection defined in federal or State endangered species legislation. Others have been designated as "sensitive" on the basis of adopted policies and expertise of State resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special-status species" in this EIR, following a convention that has developed in practice but has no official sanction. The various categories encompassed by the term, and the legal status of each, are presented in the *Regulatory Context* discussion of this section.

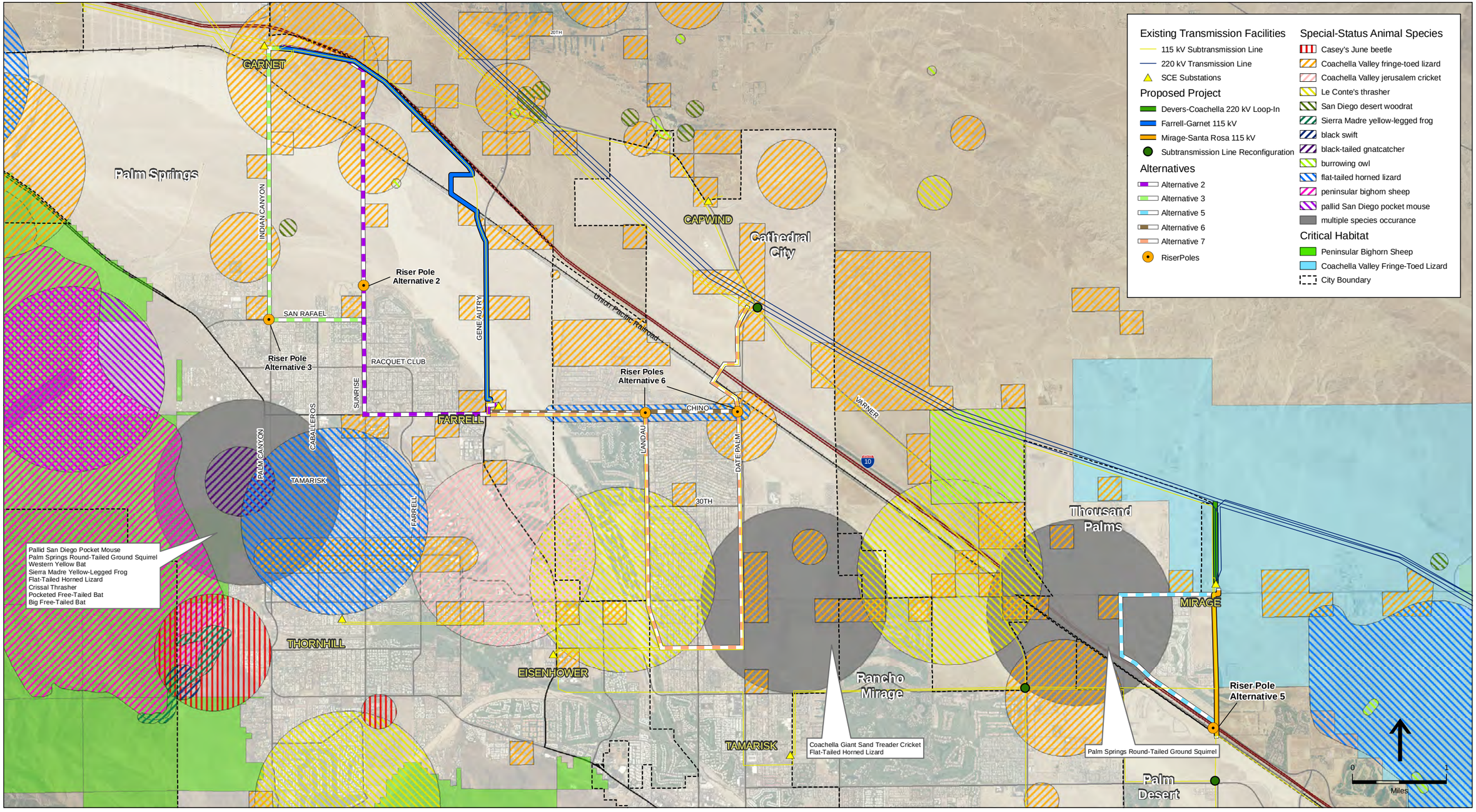
Special-status plant and wildlife species with potential to occur in the study area are discussed in the following sections. Figures 4.4-1 and 4.4-2 display known occurrences of special-status animal and plant species, respectively, for the Farrell-Garnet and Mirage-Santa Rosa study areas.

A list of special-status plant and animal species reported or expected to occur within the vicinity of the study area was compiled on the basis of data in the CNDDB (CDFG, 2009), consultation with the CDFG, California Native Plant Society (CNPS) (2009), Draft Biological Resources Survey Report for Coachella Valley Milkvetch for the Mirage System Split 115 kV Transmission Line Project (SCE and TRC, 2009a), Coachella Valley Fringe-Toed Lizard Focused Survey Results (SCE and TRC, 2009b), and biological literature of the region (Stebbins, 2003; Wheeler, 2003; Zeiner et al., 1990a and 1990b). The list is intended to be comprehensive and the "Potential for Occurrence" designations (see Table 4.4-1) apply to species and their habitats in the vicinity of the study areas, although species with potential to occur in the project vicinity would not necessarily be impacted by project activities.

Special-status species with the potential for occurrence within the study areas *and* anticipated to be exposed to project-related impacts (i.e., species either known to occur or with a high potential for occurrence) are described below. Descriptions of species are taken from various CNPS or CDFG sources unless otherwise cited. Several of the species are associated with the moving fine sand fields and dunes found throughout the area. These local endemics are collectively referred to throughout this document as "Coachella Valley sand endemics" and include the Coachella Valley fringe toed lizard (*Uma inornata*), and Coachella Valley milkvetch (*Astragalus lentiginosus* var. *coachellae*), among others.

Special Status Plants with Potential to Occur

Special status plants with the potential to occur in the biological resources study areas are listed in Table 4.4-1. This table includes conservation status, habitat, and whether the species has been observed in the study areas. Two plants on the list carry federal or State status as listed endangered species; however, only one plant species on the list, Coachella Valley milkvetch, has been documented to occur in the Farrell-Garnet study area (SCE and TRC, 2009a). The second, Mojave tarplant (*Deinandra mohavensis*), is generally associated with riparian scrub communities and has a low probability of occurrence in the study areas. The remainder of the plants listed in

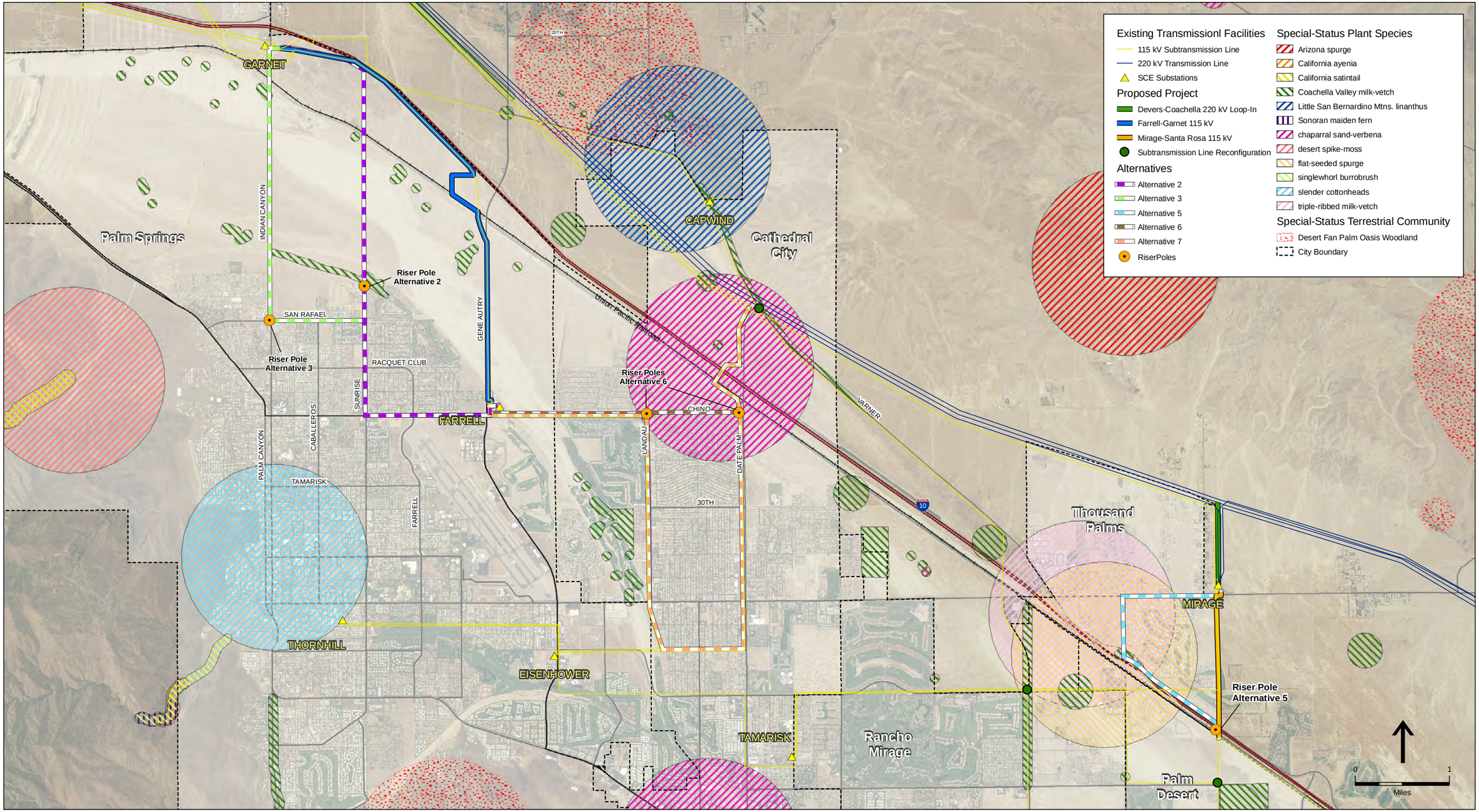


SOURCE: CNDDB, 2009; USFWS, 2009; SCE, 2008; NAIP, 2005

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.4-1

Special-Status Animal Species Occurence
California Natural Diversity Database and
Designated Critical Habitat



SOURCE: SCE, 2008; CNDDB, 2009; NAIP, 2005

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.4-2

Special Status Plant and Terrestrial Community Occurence
California Natural Diversity Database

TABLE 4.4-1
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR WITHININ OR IN THE VICINITY OF THE PROJECT SITES

Scientific Name **Common Name**	**Listing Status (USFWS/ CDFG/CNPS)**	**Habitat Requirements**	**Occurrence and/or Potential Occurrence in Study Areas**
Plants			
Abronia villosa var. Aurita Chaparral sand-verbena	--/--/1B.1	Chaparral, coastal scrub, desert dunes.	**Low potential**, limited habitat, not observed during recent special-status plant surveys (SCE and TRC, 2009a and 2009b), no CNDDB records within study areas.
Ambrosia monogyra Singlewhorl burrobrush	--/--/1B.1	Chaparral, Sonoran desert scrub.	**Low potential**, limited habitat, not observed during recent special-status plant surveys (SCE and TRC, 2009a and 2009b), no CNDDB records within study areas.
Astragalus lentiginosus var. coachellae Coachella Valley milkvetch	FE/--/1B.2	Shifting sands <350 m restricted to Coachella Valley, fewer than 20 occurrences documented.	**Present**, documented on proposed Farrell-Garnet alignment, and along the Alternative 2 alignment. Historical CNDDB records throughout the project area (CDFG, 2009).
Astragalus tricarinatus Triple-ribbed milkvetch	FE/--/1B.2	Sandy and gravelly soils of dry washes or on decomposed granite or gravelly soils at the base of canyon slopes. May require some disturbance, natural or man-made.	**Low potential**, limited habitat, no records within study areas.
Atriplex parishii Parish's brittlescale	--/--/1B.1	Chenopod scrub, playas, vernal pools.	**Low potential**, limited habitat, no records within study areas.
Ayenia compacta California ayenia	--/--/2.3	Mojavean desert scrub, Sonoran desert scrub.	**Low potential**, limited habitat, not observed during recent special-status plant surveys (SCE and TRC, 2009a and 2009b), no CNDDB records within study areas.
Chamaesyce arizonica Arizona spurge	--/--/2.3	Sandy Sonoran desert scrub 50-300 meters.	**Low potential**, limited habitat, no records within study areas.
Chamaesyce platysperma Flat-seeded spurge	--/--/1B.2	Desert dunes, Sonoran desert scrub.	**Low potential,** not observed during recent special-status plant surveys (SCE and TRC, 2009a and 2009b), and no recent CNDDB records for this species in the study areas (CDFG, 2009).
Chorizanthe parryi var. parryi Parry's spineflower	--/--/1B.1	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, sandy or rocky openings, 275-1220 meters.	**Low potential**, limited habitat, no records within study areas.
Chorizanthe xanti var. leucotheca White-bracted spineflower	--/--/1B.2	Mojave desert scrub, pinyon-juniper woodlands, 300-1200 meters.	**Low potential**, limited habitat, no records within study areas.
Ditaxis clariana Glandular ditaxis	--/--2.2	Sandy Mojave and Sonoran desert scrub 0-465 meters.	**Low potential**, limited habitat, no records within study areas.
Eriastrum harwoodii	--/--/1B.2	Desert dunes, 200-915 meters.	**Low potential,** no recent CNDDB records within study area (CDFG, 2009), and not detected during recent special-status plant surveys.
Euphorbia misera Cliff spurge	--/--/2.2	Coastal, coastal bluff, or Mojavean desert scrub 10-500 meters.	**Low potential,** no recent CNDDB records within study area (CDFG, 2009), and not detected during recent special-status plant surveys.

TABLE 4.4-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR
WITHININ OR IN THE VICINITY OF THE PROJECT SITES

Scientific Name **Common Name**	**Listing Status (USFWS/ CDFG/CNPS)**	**Habitat Requirements**	**Occurrence and/or Potential Occurrence in Study Areas**
Plants (cont.)			
Heuchera hirsutissima Shaggy-haired alumroot	--/--/1B.3	Subalpine or upper montane coniferous forests with rocky/granitic areas, 1520-3500 meters.	**Absent,** suitable habitat not present for this species.
Imperata brevifolia California satintail	--/--/2.1	Coastal, riparian, or Mojavean desert scrub, chaparral, meadows and seeps, 0-500 meters.	**Low potential,** suitable habitat is not present for this species.
Linanthus jaegeri San Jacinto linanthus	--/--/1B.2	Subalpine or upper montane coniferous forests with rocky/granitic areas, 1520-3500 meters	**Absent,** suitable habitat not present for this species.
Linanthus maculates Little San Bernardino Mountains linanthus	--/--/1B.2	Loose, soft, sandy soils on low benches along washes, generally where the substrate shows some evidence of water flow. Generally associated with creosote bush scrub, but avoids growing in the shadow of other plants.	**Low potentia**l, distribution very limited, no records within study areas.
Matelea parvifolia Spearleaf	--/--/2.3	Mojave and Sonoran desertscrub, 440-1095 meters.	**Low potential**, limited habitat, no records within study areas.
Nemacaulis denudata var. gracilis Slender cottonheads	--/--/2.2	Coastal and desert dunes, Sonoran desertscrub 50-400 meters.	**Low potential**, limited habitat, no records within study areas.
Phaseolus filiformis Slender-stem bean	--/--/2.3	Sonoran desertscrub at approximately 125m. Known only from Coachella Valley.	**Low potentia**l, distribution very limited, no records within study areas.
Saltugilia latimeri Latimer's woodland-gilia	--/--/1B.2	Chaparral, Mojavean desert scrub, pinyon and juniper woodland or sandy, often granitic, sometimes washes.	**Low potentia**l, distribution very limited, no records within study areas.
Selaginella eremophila Desert spike-moss	--/--/2.2	Sonoran desert scrub.	**Low potentia**l, distribution very limited, no records within study areas.
Sidotheca emarginata White-margined oxytheca	--/--/1B.3	Chaparral, lower montane coniferous forest, pinyon and juniper woodland.	**Low potentia**l, distribution very limited, no records within study areas.
Stemodia durantifolia Purple stemodia	--/--/2.1	Mesic sandy soils in Sonoran desertscrub, 180-300 meters.	**Low potential**, no suitable habitat and no records within study areas.
Thelypteris puberula var. sonorensis Sonoran maiden fern	--/--/2.2	Meadows and seeps.	**Low potential,** no suitable habitat within study areas.
Xylorhiza cognate Mecca-aster	--/--/1B.2	Sonoran desert scrub (Indio and Mecca Hills areas), 20-260 meters.	**Low potential**, no suitable habitat. No records within study areas.
Invertebrates			
Calileptoneta oasa Andreas Canyon leptonetid spider	--/--	Found only in Andreas Canyon, Palm Springs, Riverside County.	**Absent,** suitable habitat is not present for this species.
Dinacoma caseyi Casey's June beetle	FCE/--	Sandy soils.	**Low potential,** no recent records for this species in the project vicinity.
Macrobaenetes valgum Coachella Valley giant sand-treader cricket	FSC/--	Shifting sands, less than 350 meters, restricted to the Coachella Valley.	**Moderate potential**, suitable habitat for this species along the proposed Farrell-Garnet and 220 kV loop-in alignments, and the Alternative 2 and 3 alignments (CVAG, 2007).

TABLE 4.4-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR WITHININ OR IN THE VICINITY OF THE PROJECT SITES

Scientific Name **Common Name**	**Listing Status (USFWS/ CDFG/CNPS)**	**Habitat Requirements**	**Occurrence and/or Potential Occurrence in Study Areas**
Invertebrates (cont.)			
Oliarces clara Cheeseweed owlfly (cheeseweed moth lacewing)	--/--	Larvae feed on creosote bush roots.	**Low potential,** no records for this species in study areas.
Stenopelmatus cahuilaensis Coachella Valley Jerusalem cricket	FSC/--	Shifting sands, less than 350 meters, restricted to the Coachella Valley.	**Moderate potentia**l, no records exist for the study area, suitable habitat is present.
Fish			
Cyprinodon macularius Desert pupfish	FE/CE	Desert ponds and other waters in temperatures to 45 degrees Celsius.	**Absent,** no permanent water in the study areas.
Reptiles			
Crotalus ruber ruber Northern red-diamond rattlesnake	--/CSC	Chaparral, woodland, grassland and desert areas Riverside, Orange, and San Diego Counties to eastern slopes of mountains. Rocky areas and dense vegetation, needs rodent burrows, cracks in rocks or surface cover objects.	**Low potential**, habitat limited, records exist west the study areas closer to mountains.
Gopherus agassizii Desert tortoise	FT/CT	Desert alluvial fans, washes, canyon bottoms, hillsides, and other steep terrain. Occurs along the northern, eastern, and western rim of the Coachella Valley in the foothills.	**Low potential.** Occurs along the periphery of Coachella Valley, but no records for this species in the study areas (CDFG, 2009). EPG conducted protocol-level surveys for the desert tortoise in the Farrell-Garnet and Mirage-Santa Rosa study areas in 2006. They did not observe any live tortoises or sign of desert tortoises, and concluded that the alignment provides poor habitat for this species (EPG, 2006c).
Phrynosoma mcallii Flat-tailed horned lizard	--/CSC	Sand flats and sand dunes, concreted silt and gravel substrates.	**Moderate potential**, historic records exist for Coachella Valley and the Farrell-Garnet study area at Gene Autry Trail, but no observations since the mid-1990s (CVAG, 2007). There is potential habitat for this species in both study areas, particularly along the proposed loop-in alignment (CVAG, 2007).
Uma inornata Coachella Valley fringe-toed lizard	FT/CE	Endemic to fine, shifting sands in the Coachella Valley.	**Present**. Documented on proposed Farrell-Garnet alignment and the Alternative 2 alignment (SCE and TRC, 2009b and 2009c). USFWS-designated critical habitat is present in the northeast portion of the Mirage-Santa Rosa area, where the 220 kV loop-in is proposed.
Amphibians			
Rana draytonii California red-legged frog	FT/CSC	Lowlands and foothills in or near permanent sources of water. Shrubby or emergent riparian vegetation required for cover. Dispersal habitat includes upland woodland or grassland with burrows or debris for cover.	**Absent**. No suitable habitat for this species in the project site. Nearest CNDDB record is historical, and the population was extirpated (CDFG, 2009).

TABLE 4.4-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR WITHININ OR IN THE VICINITY OF THE PROJECT SITES

Scientific Name **Common Name**	**Listing Status (USFWS/ CDFG/CNPS)**	**Habitat Requirements**	**Occurrence and/or Potential Occurrence in Study Areas**
Amphibians (cont.)			
Rana muscosa Sierra Madre yellow-legged frog	FE/CSC	In or near high mountain rivers, riverbanks, meadow streams, isolated pools, and lake borders in the Sierra Nevada and rocky stream courses in the mountains of southern CA.	**Low potential**. No suitable habitat for this species in the project site.
Birds			
Aquila chrysaetos Golden eagle	--/CSC, CFP	Remote open hilly and montane areas.	**Low potential**, no records exist for the study area.
Athene cunicularia Burrowing owl	--/CSC	Open dry annual or perennial grasslands, deserts and scrublands with low-growing vegetation. Subterranean nests in abandoned ground squirrel burrows.	**Present**, documented on proposed Farrell-Garnet alignment, west of Gene Autry Trail at Salvia Road, in 2006 (SCE, 2008). Several recent CNDDB records for this species in the project vicinity (CDFG, 2009).
Buteo regalis Ferruginous hawk	--/WL (wintering)	Prairie, grassland desert and forest habitats, usually nests along streams or steep slopes in tall tree snags.	**Present**, non-nesting, documented on proposed Farrell-Garnet alignment, Dec. 2006.
Cypseloides niger Black swift	--/CSC	Nests on steep, rocky cliffs, often near water bodies; forages over nearly any terrain with insect prey. Present May-September.	**Low,** no recent observations or records within the study areas (CDFG, 2009).
Falco mexicanus Prairie falcon	--/WL (nesting)	Arid, open grasslands or scrub vegetation. Nests on cliffs.	**Low**, This species was documented on proposed Farrell-Garnet alignment in December 2006, and there are several CNDDB records for this species in project vicinity (CDFG, 2009). However, suitable nesting habitat is not present for this species along proposed or alternative subtransmission alignments, or where substation modifications are proposed.
Lanius ludovicianus Loggerhead shrike	--/CSC (nesting)	Open habitats, needs perches to hunt from and dense shrubs for nesting.	**Present**, Documented on proposed Farrell-Garnet and Mirage-Santa Rosa alignments (SCE, 2008).
Polioptila melanura Black-tailed gnatcatcher	**--/--**	Nests primarily in wooded desert habitat or desert wash habitat with mesquite, paloverde, ironwood, and acacia.	**Low potential,** limited habitat, no recent CNDDB records (CDFG, 2009).
Toxostoma bendirei Bendire's thrasher	--/CSC	Desert grasslands and agricultural edges.	**Low potential**, limited habitat, no records within study areas.
Toxostoma lecontei Le Conte's thrasher	--/CSC	Sparsely vegetated desert flats, dunes, alluvial fans, or gently rolling hills having a high proportion of one or more species of saltbush and/or cylindrical cholla cactus. Also occupies other desert habitats with similar structural profiles but lacking saltbush/shadscale or cholla cactus.	**Moderate potential**, historic records in the project vicinity (CDFG, 2009), but not documented during recent surveys, and intolerant of disturbance. CVMSHCP considers portions of the Farrell-Garnet and Mirage-Santa Rosa study areas to be suitable habitat for this species (CVAG, 2007).
Vireo bellii pusillus Least Bell's vireo	FE/CE	Riparian woodland habitats along the riverine systems of southern California, primarily in San Diego, Santa Barbara, and Riverside Counties. Prefers a dense shrub cover 1 – 2 meters for nesting, and a dense, stratified canopy for foraging.	**Low potential**, limited habitat and no recent CNDDB records in the study areas (CDFG, 2009).

TABLE 4.4-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR WITHININ OR IN THE VICINITY OF THE PROJECT SITES

Scientific Name **Common Name**	**Listing Status (USFWS/ CDFG/CNPS)**	**Habitat Requirements**	**Occurrence and/or Potential Occurrence in Study Areas**
Mammals			
Chaetodipus fallax fallax Northwestern San Diego pocket mouse	--/CSC	Inhabits sandy open areas in coastal sage scrub, sage scrub/grassland, and chaparral communities. Often associated with rocks or coarse gravel.	**Low potential**, limited habitat, no records within study areas.
Chaetodipus fallax pallidus Pallid San Diego pocket mouse	--/CSC	Sandy herbaceous areas associated with rocks or gravel, including desert wash, desert scrub, succulent scrub, and pinyon-juniper habitats.	**Low potential,** limited habitat in the study area. 2001 CNDDB record is approximately 1.5 miles west of the Alternative 3 alignment, in Palm Springs (CDFG, 2009).
Dipodomys merriami collinus Earthquake Merriam's kangaroo rat	--/--	Sage scrub, chaparral, and non-native grassland. Needs sandy loam substrates to dig burrows.	**Low potential,** limited habitat for this species, and no recent CNDDB records in the study areas (CDFG, 2009).
Lasiurus xanthinus Western yellow bat	--/CSC	Roost in trees, such as palm trees. Forage over water bodies. Though primarily in Mexico and Central America, their range extends into the southern portions of California.	**Low potential**, limited habitat for this species in the study areas.
Neotoma lepida intermedia San Diego desert woodrat	--/CSC	Coastal scrub of southern California, San Diego to San Luis Obispo Counties. Moderate to dense canopies preferred, abundant in areas with rock outcrops and rocky cliffs and slopes.	**Low potential**, limited habitat. 1995 CNDDB record for this species, approximately 0.1 mile east of the Alternative 3 alignment (CDFG, 2009).
Nyctinomops femorosaccus Pocketed free-tailed bat	--/CSC	Pine-juniper woodlands, desert scrub, palm oasis, desert wash.	**Low potential**, limited habitat, no records within study areas.
Nyctinomops macrotis Big free-tailed bat	--/CSC	Rugged, rocky habitats in arid landscapes. Roosts primarily in rock crevices in cliff situations, but can also be found in buildings, caves, and tree cavities.	**Low potential,** may occasionally forage in study areas, but no suitable roosting habitat.
Ovis canadensis nelsoni DPS Peninsular bighorn sheep	FE/CT	Canyon bottoms, alluvial fans, and mountain slopes at the east-facing, lower elevations of the Peninsular Ranges.	**Low potential,** no suitable habitat in the study areas. 1984 CNDDB record of this DPS approximately 1.5 miles west of the proposed Farrell-Garnet study area (CDFG, 2009), but this species is unlikely to move out of the mountains and through development, to the unsuitable habitat within the study areas.
Perognathus longimembris bangsi Palm Springs pocket mouse	--/CSC	Level to gently sloping topography, sparse to moderate vegetative cover, and loosely packed or sandy soils.	**High potential,** suitable habitat is present for this species in the Farrell-Garnet and Mirage-Santa Rosa study areas; this species was recently trapped in the Farrell-Garnet study area (CVAG, 2007).
Phyrynosoma blainvillii Coast horned lizard	--/CSC	Open sandy washes, flood plains. Also found in valley-foothill hardwood, conifer and riparian habitats, pine-cypress, juniper, and annual grassland habitats.	**Low potential,** limited habitat. The nearest CNDDB record is approximately 5 miles west of the Garnet Substation, from 1967 (CDFG, 2009).
Spermophilus tereticaudus chlorus Palm Springs round-tailed ground squirrel	FCE/CSC	Coachella Valley endemic, desert succulent scrub, desert wash, alkali scrub. Typically associated with sand fields and dune formations, but does not require active blowsand areas.	**High potential**, 1954 CNDDB record along the Alternative 5 alignment (CDFG, 2009). Suitable habitat for this species is present in both study areas (CVAG, 2007).

TABLE 4.4-1 (Continued)
SPECIAL-STATUS PLANTS AND ANIMALS WITH POTENTIAL TO OCCUR
WITHININ OR IN THE VICINITY OF THE PROJECT SITES

Scientific Name **Common Name**	**Listing Status (USFWS/ CDFG/CNPS)**	**Habitat Requirements**	**Occurrence and/or Potential Occurrence in Study Areas**
Mammals (cont.)			
Taxidea taxus American badger	--/CSC	Drier, open stages of most shrub, forest and herbaceous habitats with friable soils. Preys on burrowing rodents.	**Low potential**, limited habitat, no records within study areas.

STATUS CODES:

Federal (USFWS)
FE = Federally Endangered
FCE = Federal Candidate Endangered
FT = Federally Threatened
FSC = Former Federal Species of Concern

State (CDFG)
CE = California Endangered
WL = Watch List
CT = California Threatened
CFP = California Fully Protected
CSC = California Species of Special Concern

CNPS
1B = plants rare, threatened, or endangered in the states and elsewhere
1B.1 = seriously threatened in California
1B.2 = rare, threatened, or endangered in California and elsewhere; fairly threatened in California
2 = plants rare, threatened, or endangered in the state, but common elsewhere
2.2 = rare, threatened, or endangered in California, not elsewhere; fairly threatened in California
2.3 = rare, threatened, or endangered in California, not elsewhere; not very threatened in California

Table 4.4-1 (CNPS list 1B designation) have documented occurrences in the vicinity of the project (CDFG, 2009), but none were documented within the bounds of the study areas during May 2009 special-status plant surveys (SCE and TRC, 2009a), nor is the potential for occurrence deemed to be moderate or high, due to the lack of suitable habitat.

Coachella Valley Milkvetch. The Coachella Valley (CV) milkvetch is a federally endangered species. This variety is a winter annual or short-lived perennial that typically blooms February through May. CV milkvetch typically grows in loose wind-blown (Aeolian) or alluvial sands on dunes or flats (USFWS, 1998), and is generally limited to elevations from sea level to 350 meters. This variety prefers disturbed margins of sandy washes and non-cohesive sandy soils, and is restricted to the Coachella Valley primarily between Indio and Cabazon, within Riverside County. Threats to the survival of this variety include development, off-highway vehicles, road widening, and nonnative plants such as Saharan mustard (*Brassica tournefortii*) and Mediterranean grass (*Schizmus barbatus*).

In 2004, the USFWS proposed critical habitat for the CV milkvetch species north of I-10, in the vicinity of the study areas (Federal Register, 2004). However in 2005 they removed the entire proposed habitat from critical habitat designation, because habitat with essential features for this species is located in areas to be conserved and managed by the CVMSHCP, or within areas

conserved within the Coachella Valley Preserve System under the Coachella Valley fringe-toed HCP (Federal Register, 2005).

TRC Solutions, Inc. observed approximately 267 CV milkvetch plants along the proposed Farrell-Garnet 115 kV subtransmission line alignment in 2009 south of the UPRR, and has indicated that there is a low to moderate potential for this species to occur in the 0.8-mile stretch of alignment north of the UPRR (SCE and TRC, 2009a and 2009b). EPG, Inc. also observed the CV milkvetch in this area during their 2006 surveys for this species (EPG, 2006a). This species could occur in the area of the line reconfiguration at Varner Road and Date Palm Drive, as there is a 2005 record for the CV milkvetch along Varner Road that includes the Date Palm Drive and Varner Road intersection. This species has only a low potential to occur where new roads are proposed in the Farrell-Garnet study area (i.e., an access road to the new 0.8-mile ROW section of the Farrell-Garnet alignment, and a paved driveway along the northeast corner of the Farrell substation), due to a lack of suitable habitat.

This species is unlikely to occur along the proposed Mirage-Santa Rosa 115 kV alignment and the proposed 220 kV loop-in alignment. The presence of herbaceous plants, combined with the residential development to the west of these areas, cuts off the Aeolian sands and drastically reduces suitable habitat for the CV milkvetch. While there are historic records of this species near this study area, EPG did not observe the CV milkvetch during their 2006 surveys for this species along the Mirage-Santa Rosa 115 kV alignment and the 220 kV loop-in alignment, and concluded that habitat for the CV milkvetch is no longer present there (EPG, 2006a). There is a 1993 record for the CV milkvetch at the southeast corner of the Portola and Gerald Ford Drive where a subtransmission line reconfiguration is proposed, and a 1985 record for this species stretching along Bob Hope Drive, down to the proposed Bob Hope and Dinah Shore Drive subtransmission line reconfiguration location. Both of these subtransmission line reconfiguration locations are now developed or composed of graded or cleared habitat, and there is only a low potential for this species to occur here.

In 2009, TRC observed six CV milkvetch individuals along the surveyed portion of the Alternative 2 alignment, during focused rare plant surveys for this species (SCE and TRC, 2009a). TRC identified all of Alternative 6 and Alternative 7 as high potential habitat for the CV milkvetch, except where it traverses through urban areas (i.e., along Vista Chino beyond the first 0.5 mile) (SCE and TRC, 2009b).

Special Status Animals with Potential to Occur

Special-status animals with the potential to occur in the biological resources study areas are listed in Table 4.4-1. Of these animals, only one federally threatened/endangered species has a moderate or high potential for occurrence in the project site - the Coachella Valley fringe-toed lizard (*Uma inorta*).

Animals that are not threatened/endangered, but are nevertheless considered special-status species and have a moderate or high potential to occur in the study areas, include flat-tailed horned lizard (*Phrynosoma mcalli*), burrowing owl (*Athene cunicularia*), Le Conte's thrasher (*Toxostoma*

lecontei), ferruginous hawk (*Buteo regalis*), loggerhead shrike (*Lanius ludovicianus*), Palm Springs pocket mouse (*Perognathus longimembris bangsi*), and Palm Springs round-tailed ground squirrel (also sometimes referred to as the Coachella Valley round-tailed ground squirrel) (*Spermophilus tereticaudus chlorus*). These species are described briefly below.

Coachella Valley Fringe-Toed Lizard. Coachella Valley (CV) fringe-toed lizard was listed as federally threatened in 1980 (USFWS, 1980), and California endangered in 1980 (CDFG, 2009). It is a small reptile that inhabits sparse desert scrub, alkali scrub, and desert wash habitats (Zeiner et al., 1990b) in Coachella Valley.

Several specialized features allow CV fringe-toed lizard to survive in a loose-sand environment, such as the large scales that line the fringe of their toes from which their name is derived, a shovel-shaped head which allows for quick burrowing, and elongated scales that cover the ears which keep out wind-blown sand. The CV fringe-toed lizard hibernates during winter and is most active during the spring and summer when air temperatures increase. When air temperatures are at their highest, the fringe-toed lizard escapes the heat by burrowing underground and restricts its active time to mornings and evenings.

CV fringe-toed lizard populations have declined for a variety of reasons, including loss of habitat (sand sources), habitat conversion, agriculture, exotic plant invasion, and other development projects within the Coachella Valley.

TRC biologists observed three CV fringe-toed lizards along the proposed Farrell-Garnet 115 kV subtransmission line alignment in 2009, in partially stabilized desert dunes and Sonoran creosote bush scrub just south of the UPRR, along both sides of the Gene Autry Trail (SCE and TRC, 2009c). EPG biologists also observed CV fringe-toed lizards in this portion of the Farrell-Garnet alignment, within 60 feet of the Gene Autry Trail (EPG, 2006b). The Farrell-Garnet alignment north of the UPRR lacks characteristics preferred by this species.

EPG conducted CV fringe-toed lizard surveys along the Mirage-Santa Rosa 115 kV subtransmission line and Devers-Coachella Valley 220 kV Loop-In in 2006, and concluded that there was not suitable habitat for this species there (EPG, 2006b). Suitable habitat occurred here at one time, but the introduction of herbaceous plants and the residential development to the west of the Mirage-Santa Rosa 115 kV and the Devers-Coachella 200 kV loop-in alignments cut off the Aeolian sands, which drastically reduced habitat for this species.

The Alternative 2 alignment crosses through CV fringe-toed lizard habitat. In 2009, TRC conducted focused surveys for CV fringe-toed lizard in the area just south of UPRR, which was determined to have habitat characteristics suitable for this species, and found one individual (SCE and TRC, 2009c).

The Alternative 3 alignment has potential CV fringe-toed lizard habitat in the stabilized and partially stabilized sand dunes on either side of Indian Canyon Drive. Alternatives 6 and 7 have potential CV fringe-toed lizard habitat in the sparse patches of Aeolian sands that occur in the 0.5-mile section immediately east of the Farrell Substation, along Vista Chino; and in the

900-foot stretch of stabilized and partially stabilized sand dunes that is present from the riser pole at Date Palm Avenue north to I-10.

Flat-tailed Horned Lizard. Flat-tailed horned lizard is a California species of special concern. It is found in low-elevation desert with extremely high temperatures and low rainfall and humidity, and is often associated with sand flats and sand dunes, although it is rare on more active dunes. The most common perennial plants associated with their habitat include creosote bush and white bursage. The Coachella Valley is the northern end of this species' range.

This species occurs in less disturbed areas in the Whitewater Floodplain Preserve in the Farrell-Garnet study area, and southeast of the Mirage Substation (CVAG, 2007). It is negatively correlated with urban edges and within 500 feet of roads (Barrows et al., 2006), although Gene Autry Trail and Indian Canyon Drive are not considered as significant barriers for this species (CVAG, 2007). This species was not detected during CV fringe-toed lizard surveys (EPG, 2006b; SCE and TRC, 2009c). There is a 1966 record for the flat-tailed horned lizard along Alternatives 6 and 7, east of Whitewater Wash and along a two-mile stretch of Vista Chino (CDFG, 2009), although there is a low potential that this species still occurs here as this area is currently developed and lacks suitable habitat. The proposed loop-in alignment borders the western edge of what the CVMSHCP considers Core Habitat for the flat-tailed horned lizard, although there are no known locations of this species here (CVAG, 2007) and the alignment in general offers poor quality habitat for this species.

Due to the proximity of most of the proposed and alternative alignments to roads, and the lack of detection during recent lizard surveys, there is not a high potential for this species to be present in the vicinity of the alignments. However, the Alternative 2 alignment crosses through the Whitewater Floodplain Preserve, where this species is known to occur, and the proposed Farrell-Garnet 115 kV subtransmission line and proposed Devers-Coachella Valley 220 kV Loop-In alignments provide close to suitable habitat for this species. Thus, there is moderate potential for this species to occur along any of these three alignments.

Palm Springs Round-Tailed Ground Squirrel. The Palm Springs round-tailed squirrel is a federal candidate endangered species, and a California species of special concern. It is typically associated with sand fields and dune formations, although it does not require active blow sand areas. This species seems to prefer areas where hummocks of sand accumulate at the base of large shrubs and provide burrow sites and adequate cover, as well as sandy areas within creosote bush and alkali sink scrub. The CVMSHCP considers portions of the Whitewater Floodplain Conservation Area, Willow Hole Conservation Area, and Thousand Palms Conservation Area to be "Core Habitat"[1] for this species. The Palm Springs round-tailed ground squirrel is known to occur in the northern portion of the Whitewater Floodplain Preserve, which is south of the UPRR in the Farrell-Garnet study area (CVAG, 2007), and most undeveloped sand dunes and sand fields in the study area provide suitable habitat for this species. There is a moderate potential for this species to be impacted by the proposed Farrell-Garnet alignment, and Alternatives 2, 3, 6, and 7.

[1] "Core Habitat" is defined by the CVMSHCP as areas of unfragmented habitat with intact ecological processes large enough for a self-sustaining population of the species (CVAG, 2007).

Habitat is less suitable for this species in the Mirage-Santa Rosa study area. There is a 1954 Palm Springs round-tail ground squirrel CNDDB record approximately 0.5 mile west of the Devers-Coachella Valley 220 kV Loop-In (CDFG, 2009), but it is unlikely that such occurrences still exists at this location, as most of the Mirage-Santa Rosa study area is highly disturbed. Because of this high amount of disturbance, there is only a low potential for this species to occur along the proposed Mirage-Santa Rosa alignment, the proposed Devers-Coachella Valley loop-in alignment, or the Alternative 5 alignment.

Burrowing Owl. Burrowing owls are a California species of special concern. They are relatively small, semi-colonial owls that are residents of open dry grasslands and barren areas. They breed and roost in burrows excavated by ground squirrels and other small mammals. Where the number and availability of natural burrows is limited, owls may occupy human-made burrows such as drainage culverts, cavities under piles of rubble, discarded pipe, and other tunnel-like structures (Zeiner et al., 1990a). Burrowing owls hunt from perches and are opportunistic feeders, consuming arthropods, small mammals (e.g., meadow voles), birds, amphibians, and reptiles.

This species was observed near the proposed Farrell-Garnet 115 kV subtransmission line alignment during EPG's 2006 biological surveys, and there are several CNDDB nesting burrowing owl records within the vicinity of the Proposed Project, including a 2003 and 2007 record in the Farrell-Garnet study area (CDFG, 2009). There is suitable habitat for this species along undeveloped portions of Alternatives 2, 3, 6, 7. However, no burrowing owls or potential burrows were documented in the Mirage-Santa Rosa study area, and there is only a low potential for this species to occur along the Mirage-Santa Rosa subtransmission line, the Devers-Coachella Valley 220 kV Loop-In, or the Alternative 5 alignments.

Ferruginous Hawk. The ferruginous hawk is a California Watch List species. It is an uncommon winter resident and migrant at lower elevations and open grasslands in the Modoc Plateau, Central Valley, and Coast Ranges, and a fairly common winter resident of grasslands and agricultural areas in southwestern California. There are no breeding records for this species in California. Ferruginous hawks mostly eat lagomorphs, ground squirrels, and mice but may also take birds, reptiles, and amphibians.

This species was observed along the Alternative 2 alignment. There is a moderate potential for this species to winter along all of the Proposed Project subtransmission and transmission line alignments as well as the alternative alignments.

Le Conte's Thrasher. Le Conte's thrasher is a California species of special concern. It is an uncommon resident of the deserts of the American southwest and northwestern Mexico. This species typically inhabits sparsely vegetated desert flats, dunes, alluvial fans, or gently rolling hills that have a high proportion of one or more species of saltbush (*Atriplex* spp.) and/or cylindrical cholla cactus (*Opuntia* spp.), or other desert habitats with similar structural profiles. In its typical habitat, shrubs are well scattered with contiguous or closed cover usually less than 45 feet in any direction. Substrates are typically sandy and rarely composed of a large proportion of rock or of deep silty clays. The habitat requires accumulated leaf litter under most plants, as diurnal cover for most arthropod prey. This species is intolerant of disturbance.

There are CNDDB records for this species nesting in the project vicinity within the last 20 years (CDFG, 2009). There is moderate potential nesting habitat for this species along all of the Proposed Project and alternative alignments.

Loggerhead Shrike. The loggerhead shrike is a California species of special concern. This species is a common resident and winter visitor in lowlands and foothills throughout California. It prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. The species rarely occurs in heavily urbanized areas, but is often found in open cropland.

Several loggerhead shrikes were noted along the proposed Farrell-Garnet subtransmission line alignment, on Salvia Road between Garnet Substation and Gene Autry Trail, as well as along the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. Nesting habitat for loggerhead shrikes is present in the large tamarisk trees bordering the UPRR tracks.

Along the Alternative 2 alignment, one non-nesting loggerhead shrike was documented during reconnaissance-level surveys in December 2006, and there is potential nesting habitat for this species in the tamarisk trees bordering the UPRR tracks along this alignment. This species could also occur along the other alternative alignments for the project.

Palm Springs Pocket Mouse. The Palm Springs pocket mouse is one of seven subspecies of *Perognathus longimembris*, and is a California species of special concern. Their habitat generally has gently sloping topography, sparse to moderate vegetative cover, and loosely packed or sandy soils.

Historic records exist for the Palm Springs pocket mouse west of Gene Autry Trail and south of I-10, as well as near Date Palm Drive. This species was trapped in the Whitewater Floodplain Conservation Area and the Willow Hole Conservation Area of the CVMSHCP during 1995 and 1999 trapping surveys, and the CVMSHCP considers the proposed Farrell-Garnet and 220 kV alignments to be within Core Habitat for this species (CVAG, 2007). There is a moderate potential for the Palm Springs pocket mouse to occur along the Proposed Project subtransmission and transmission lines and alternative alignments in the Farrell-Garnet and Mirage-Santa Rosa study areas, particularly in the undeveloped sand dunes, sand fields, and Sonoran creosote bush scrub habitat.

Coachella Valley Sand-Treader Cricket. While the Coachella Valley sand-treader cricket has no formal rarity status, it is nevertheless considered a special-status species. It inhabits active dunes and ephemeral sand fields at the western end of Coachella Valley. Perennial shrubs, including creosote bush, white bursage, honey mesquite, Mormon tea, desert willow, and sandpaper bush, dominate the preferred habitat of this species in windblown environments while stabilized sand areas (such as that found on the Mirage-Santa Rosa 115 kV subtransmission alignment and the Devers-Coachella Valley 220 kV Loop-In) appear to be avoided.

Trapping studies in the active dune area west of Gene Autry Trail at Whitewater Wash found an average of 6.4 individuals per acre (CVAG, 2007). The species has potential to occur along the Farrell-Garnet alignment, and Alternatives 2, 3, 6, and 7.

Regulatory Context

Many biological resources in California are protected and/or regulated by a variety of laws and policies administered by federal, State, and/or local agencies. The following is an overview of the key agencies, regulations, and policies relevant to the Proposed Project and alternatives.

Federal

U.S. Fish and Wildlife Service

The USFWS administers the Federal Endangered Species Act (FESA) (16 U.S. Code [USC] 153 et seq.), the Migratory Bird Treaty Act (MBTA) (16 USC 703–711), and the Bald Eagle Protection Act (16 USC 668).

Federal Endangered Species Act. Under the FESA, the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as threatened or endangered (16 USC § 1533(c)). Two federal agencies oversee the FESA: the USFWS has jurisdiction over plants, wildlife, and resident fish, while the National Marine Fisheries Service (NMFS) has jurisdiction over anadromous fish and marine fish and mammals. Section 7 of the FESA mandates that federal agencies consult with the USFWS and NMFS to ensure that federal agency actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. The FESA prohibits the "take"[2] of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery.

Section 10 requires the issuance of an "incidental take" permit before any public or private action may be taken that could take an endangered or threatened species. The permit requires preparation and implementation of a habitat conservation plan (HCP) that would offset the take of individuals that may occur, incidental to implementation of the project, by providing for the protection of the affected species.

Currently there is one approved HCP in Coachella Valley, which includes the study area – the Coachella Valley Multiple-Species Habitat Conservation Plan. This HCP was approved and permitted by the USFWS and CDFG in 2008. However, the Proposed Project is not part of this HCP.

Pursuant to the requirements of the FESA, a federal agency reviewing a project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project area and whether the proposed action will have a potentially significant impact on such species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC § 1536(3), (4)). Therefore, project-related impacts to these species or their habitats would be considered significant in this EIR.

[2] Take is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct.

Critical Habitat. The USFWS designates critical habitat for listed species under FESA. Critical habitat designations are specific areas within the geographic region that are occupied by a listed species, that are determined to be critical to its survival and recovery in accordance with FESA. Federal entities issuing permits or acting as a lead agency must show that their actions do not negatively affect the critical habitat to the extent that it impedes the recovery of the species. Within designated critical habitat, the USFWS protects areas that provide the primary constituent elements (PCEs) for the survival and conservation of the subject listed species. PCEs are the physical and biological functions considered essential to species conservation that require special management considerations or protection.

The Mirage Substation is at a western corner of USFWS-designated critical habitat for the Coachella Valley fringe-toed lizard, and the Devers-Coachella loop-in alignment is within this critical habitat. In addition, both the proposed Mirage-Santa Rosa alignment and the Alternative 5 alignment would follow the western border of this critical habitat, although Alternative 5 less so than the proposed alignment (see Figure 4.4-1).

Protection of Nesting Birds - Migratory Bird Treaty Act. The Migratory Bird Treaty Act (MBTA) (16 United States Code § 703 Supp. I, 1989) generally prohibits the killing, possessing, or trading of migratory birds, bird parts, eggs, and nests, except as provided by the statute.

Bald and Golden Eagle Protection Act. The Bald and Golden Eagle Protection Act, enforced by the USFWS, makes it illegal to import, export, take (which includes molest or disturb), sell, purchase, or barter any bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*) or parts thereof.

U.S. Army Corps of Engineers

Clean Water Act, Section 404. The U.S. Army Corps of Engineers (USACE) administers Section 404 of the Clean Water Act (CWA). Section 404 regulates activities in wetlands and "other waters of the United States." Wetlands are a subset of "waters of the United States" that are defined in the Code of Federal Regulations (CFR) (33 CFR 328.3[a]; 40 CFR 230.3[s]) as:

1. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide.

2. All interstate waters including interstate wetlands. (Wetlands are defined by the federal government [33 CFR 328.3(b), 1991] as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances support, a prevalence of vegetation typically adapted for life in saturated soil conditions.)

3. All other waters—such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds—the use, degradation, or destruction of which could affect interstate or foreign commerce. This includes any waters with the following current or potential uses:

- That are or could be used by interstate or foreign travelers for recreational or other purposes,
- From which fish or shellfish are or could be taken and sold in interstate or foreign commerce, or
- That are used or could be used for industrial purposes by industries in interstate commerce.

4. All impoundments of waters otherwise defined as waters of the United States under the definition.

5. Tributaries of waters identified in paragraphs (1) through (4).

6. Territorial seas.

7. Wetlands next to waters identified in paragraphs (1) through (6).

8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding the Clean Water Act jurisdiction remains with the USEPA (328.3[a][8] added 58 CFR 45035, August 25, 1993).

State

California Department of Fish and Game

The CDFG administers a number of laws and programs designed to protect fish and wildlife resources under the Fish and Game Code, such as the California Endangered Species Act (CESA)(FGC Section 2050, et seq.), Fully Protected Species (FGC Section 3511), Native Plant Protection Act (FGC Sections 1900 to 1913), and Lake or Streambed Alteration Agreement Program (FGC Sections 1600 to 1616).

California Endangered Species Act. In 1984, the State of California implemented the CESA, which prohibits the take of State-listed endangered and threatened species; although, habitat destruction is not included in the State's definition of take. Section 2090 requires State agencies to comply with endangered species protection and recovery and to promote conservation of these species. The CDFG administers the act and authorizes take through California Fish and Game Code Section 2081 agreements (except for designated "fully protected species," see below). Unlike its federal counterpart, CESA protections apply to candidate species that have been petitioned for listing.

Regarding listed rare and endangered plant species, CESA defers to the California Native Plant Protection Act (see below).

Fish and Game Code Section 3503 and 3503.5. California Fish and Game Code Section 3503 prohibits the taking and possession of native birds' nests and eggs from all forms of needless take. California Fish and Game Code Section 3503.5 provides that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or

any regulation adopted pursuant thereto. For these regulations, resource agencies typically consider "nests" to be active nests (nests with eggs or chicks). Destruction of inactive nests is generally not considered "take."

Construction activities that result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment and/or reproductive failure are considered a "take" by CDFG, and would constitute a significant project impact.

Native Plant Protection Act. California Fish and Game Code Section 1900–1913, also known as the Native Plant Protection Act, is intended to preserve, protect, and enhance endangered or rare native plants in California. The act directs CDFG to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more cause. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered. The act also directs the CDFG Commission to adopt regulations governing the taking, possessing, propagation, or sale of any endangered or rare native plant.

Vascular plants that are identified as rare by the CNPS, but which may have no designated status or protection under federal or State endangered species legislation, are defined as follows:

- **List 1A:** Plants Presumed Extinct.
- **List 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere.
- **List 2:** Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere.
- **List 3:** Plants about Which More Information is Needed – A Review List.
- **List 4:** Plants of Limited Distribution – A Watch List.

In general, plants appearing on CNPS List 1A, 1B, or 2 are considered to meet the criteria of CEQA Guidelines Section 15380 and effects to these species are considered "significant" in this EIR. Additionally, plants listed on CNPS List 1A, 1B or 2 meet the definition of Section 1901, Chapter 10 (Native Plant Protection Act) and Sections 2062 and 2067 (California Endangered Species Act) of the California Fish and Game Code.

Lake or Streambed Alteration Program. The CDFG regulates activities that would interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream. Section 1602 of the California Fish and Game Code requires notification of the CDFG for lake or stream alteration activities. If, after notification is complete, the CDFG determines that the activity may substantially adversely affect an existing fish and wildlife resource, the CDFG has authority to issue a Streambed Alteration Agreement under Section 1603 of the California Fish and Game Code. Requirements to protect the integrity of biological resources and water quality are often conditions of Streambed Alteration Agreements. These may include avoidance or minimization of heavy equipment use within stream zones, limitations on work periods to avoid impacts to wildlife and fisheries resources, and measures to restore degraded sites or compensate for permanent habitat losses.

Species of Special Concern. CDFG maintains lists for candidate-endangered species and candidate-threatened species. California candidate species are afforded the same level of protection as listed species. California also designates species of special concern, which are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species or fully protected species, but may be added to official lists in the future. CDFG intends the species of special concern list to be a management tool for consideration in future land use decisions.

State Water Resources Control Board

Porter Cologne Water Quality Act. The State Water Resources Control Board (SWRCB), through its nine Regional Water Quality Control Boards (RWQCB), regulates waters of the State through the California Clean Water Act (i.e., Porter-Cologne Act). If the USACE determines wetlands or other waters to be isolated waters and not subject to regulation under the federal CWA, the RWQCB may choose to exert jurisdiction over these waters under the Porter-Cologne Act as waters of the State.

CEQA Guidelines Section 15380

Although threatened and endangered species are protected by specific federal and State statutes, CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or State list of protected species may be considered rare or endangered if the species can be shown to meet certain specific criteria. These criteria have been modeled after the definition of FESA and the section of Fish and Game Code discussing rare or endangered plants or animals. This section was included in the CEQA Guidelines primarily for situations in which a public agency is reviewing a project that may have a significant effect on a candidate species that has not yet been listed by CDFG or USFWS. CEQA provides the ability to protect species from potential project impacts until the respective agencies have the opportunity to designate the species protection.

CEQA also specifies the protection of other locally or regionally significant resources, including natural communities or habitats. Although natural communities do not presently have legal protection, CEQA requires an assessment of such communities and potential project impacts. Natural communities that are identified as sensitive in the CNDDB are considered by CDFG to be significant resources and fall under the CEQA Guidelines for addressing impacts. Local planning documents such as general and area plans often identify natural communities.

Local Policies and Ordinances

The CPUC has preemptive jurisdiction over the construction, maintenance, and operation of public utilities in the State of California, and is not required to comply with these local policies and ordinances, but they should be considered in the *Regulatory Context*. Several local policies and ordinances were considered for this project, including Riverside County General Plan and the Coachella Valley Western Area Plan, city general plans, and the Bureau of Land Management's (BLM's) California Desert Conservation Area Plan.

Riverside County General Plan

The Riverside County General Plan, updated and adopted in October 2003, serves as the blueprint for planning decisions in Riverside County. It sets the foundation for growth and land-use related decisions within Riverside County over a 20-year period. The Riverside County General Plan is comprised of the seven mandatory elements plus the Air Quality Element. The Multipurpose Open Space Element of the General Plan recognizes the importance of open space with scenic, habitat, and recreational values, and outlines policies to protect and preserve natural resources, agriculture, and open space areas. Several biological resource policies in the General Plan defer to the CVMSHCP. The General Plan is also supplemented by 19 detailed area plans covering the County's territory, including the Coachella Valley Western Area Plan. The Coachella Valley Western Area Plan includes the Proposed Project study areas, and is discussed below. The following policies from the Riverside County General Plan would be applicable to the Proposed Project and alternatives (Riverside County, 2003a):

Floodplain and Riparian Area Management Policies

Policy OS 5.1c: Substantially alter floodways or implement other channelization only as a "last resort," and limit the alteration to projects where the primary function is improvement of fish and wildlife habitat.

Policy OS 5.2: If substantial modification to a floodway is proposed, design it to reduce adverse environmental effects to the maximum extent feasible, considering:

c. wildlife habitat and linkages; and

f. design (a natural effect, examples could include soft riparian bottoms and gentle bank slopes, wide and shallow floodways, minimization of visible use of concrete, and landscaping with native plants to the maximum extent possible).

Policy OS 5.3: Based upon site, specific study, all development shall be set back from the floodway boundary a distance adequate to address the following issues:

c. riparian or wetland buffer; and

d. wildlife movement corridor or linkage.

Policy OS 5.5: New development shall preserve and enhance existing native riparian habitat and prevent obstruction of natural watercourses. Incentives shall be utilized to the maximum extent possible.

Policy OS 5.6: Identify and, to the maximum extent possible, conserve remaining upland habitat areas adjacent to wetland and riparian areas that are critical to the feeding, hibernation, or nesting of wildlife species associated with these wetland and riparian areas.

Wetlands

Policy OS 6.1: During the development review process, ensure compliance with the Clean Water Act's Section 404 in terms of wetlands mitigation policies and policies concerning fill material in jurisdictional wetlands.

Policy OS 6.2: Preserve buffer zones around wetlands where feasible and biologically appropriate.

Forest Resources

Policy OS 8.1: Cooperate with federal and state agencies to achieve the sustainable conservation of forest land as a means of providing open space and protecting natural resources and habitat lands included within the multi-species habitat conservation plans (MSHCPs).

Policy OS 8.2: Support conservation programs to reforest privately held forest lands.

Vegetation

Policy OS 9.1: Update the Vegetation Map for Western Riverside County in consultation with the California Department of Fish and Game's Natural Diversity Data Base, the United States Forest Service, and other knowledgeable agencies. The County shall also provide these agencies with data as needed.

Policy OS 9.2: Expand vegetation mapping to include the eastern portion of the County of Riverside.

Policy OS 9.3: Maintain and conserve superior examples of native trees, natural vegetation, stands of established trees, and other features for ecosystem, aesthetic, and water conservation purposes.

Policy OS 9.4: Conserve the oak tree resources in the County.

Policy OS 9.5: Encourage research and education on the effects of smog and other forms of pollution on human health and on natural vegetation.

Multi-Species Habitat Conservation Plans (MSHCPs)

Policy OS 17.1: Enforce the provisions of applicable MSHCPs, if adopted, when conducting review of development applications.

Policy OS 17.2: Enforce the provisions of applicable MSHCPs, if adopted, when developing transportation or other infrastructure projects that have been designated as covered activities in the applicable MSHCP.

Environmentally Sensitive Lands

Policy OS 18.1: Preserve multi-species habitat resources in the County of Riverside through the enforcement of the provisions of applicable MSHCPs, if adopted.

Policy OS 18.2: Provide incentives to landowners that will encourage the protection of significant resources in the County beyond the preservation and/or conservation required to mitigate project impacts.

Coachella Valley Western Area Plan

One of the primary goals of the Western Coachella Valley Area Plan is to contain and concentrate growth in several strategic unincorporated areas while preserving the rural and open space characteristics of the outlying areas. The Western Coachella Valley Area Plan (WCVAP) provides the following policies that would be applicable to the Proposed Project and alternatives (Riverside County, 2003b):

Light Pollution

WCVAP Policy 15.1: Where outdoor lighting is proposed, require the inclusion of outdoor lighting features that would minimize the effects on the nighttime sky and wildlife habitat areas.

Multipurpose Open Space

WCVAP Policy 19.1: Protect visual and biological resources in the Western Coachella Valley through adherence to General Plan policies found in the Fish and Wildlife Habitat section of the Multipurpose Open Space Element.

Watershed, Floodplains, and Watercourses

WCVAP Policy 20.1: Protect the Whitewater River watershed and habitat, and provide recreational opportunities and flood protection through adherence to policies in the Open Space, Habitat and Natural Resources Preservation section of the General Plan Land Use Element and the Watershed Management section of the General Plan Multipurpose Open Space Element.

Habitat Conservation

WCVAP Policy 21.1: Protect biological resources in the Western Coachella Valley through adherence to General Plan policies found in the Fish and Wildlife Habitat section of the Multipurpose Open Space Element, as well as policies contained in the Coachella Valley Multiple Species Habitat Conservation Plan.

WCVAP Policy 21.2: Require all development activities within fringe-toed lizard habitat areas be compatible with the conservation principles and provisions of the Fringe-toed Lizard Habitat Conservation Plan and the standards of the Multipurpose Open Space Element.

WCVAP Policy 21.3: Preserve the environmentally sensitive alluvial fan areas flowing out of the canyons of the Santa Rosa Mountains.

City of Palm Springs General Plan

The following policies from the City of Palm Springs General Plan would be applicable to the Proposed Project and alternatives (City of Palm Springs, 2007):

Parks and Recreation Policies

Policy RC7.1: Support local and regional efforts to evaluate, acquire, and protect natural habitats for sensitive, threatened, and endangered species occurring in the City and vicinity.

Policy RC4.3: Develop and regulate the use of trails in a manner consistent with regional and tribal habitat conservation plans so that they do not affect sensitive habitats and wildlife.

Policy RC4.5: Recognize the Whitewater River Wash, the Palm Canyon Wash, and the Tahquitz Wash as valuable open spaces and community resources and promote recreational uses and trail and park development in these areas.

Biological Resources Policies

Policy RC7.1: Support local and regional efforts to evaluate, acquire, and protect natural habitats for sensitive, threatened, and endangered species occurring in the City and vicinity.

Policy RC7.3: Support the adoption of the Coachella Valley Multiple Species Habitat Conservation Plan and Agua Caliente Tribal Habitat Conservation Plan.

Policy RC7.4: Coordinate special-status species management with the California Department of Fish and Game, United States Fish and Wildlife Service, researchers, and local jurisdictions to promote consistency, effectiveness, and efficiency of recovery and monitoring activities.

Policy RC7.5: Protect and enhance known wildlife and migratory corridors, including corridors leading into the Santa Rosa Mountains, the San Jacinto Mountains, and along the Whitewater River.

Water Resources Policy

Policy RC9.5: Protect the quality and quantity of water from adverse impacts of development activities so that sufficient water is available to sustain habitats and wildlife.

City of Palm Desert General Plan

The City of Palm Desert General Plan includes the following policies that would be applicable to the Proposed Project and alternatives (City of Palm Desert, 2004):

Biological Resources Policies

Policy 2: The City shall proactively monitor the conversion of open lands to urban uses by reviewing all development proposals on vacant land to determine their potential to adversely impact sensitive plants, animals and habitats, and to assure minimal impacts on habitats and wildlife.

Policy 4: To the greatest extent practical, the City shall encourage and in some instances may require developers to salvage native vegetation occurring on proposed development sites for incorporation into project landscaping or shall transplant viable trees and shrubs to other development sites.

City of Cathedral General Plan

The following policies from the City of Cathedral City General Plan would be applicable to the Proposed Project and alternatives (City of Cathedral City, 2002):

Biological Resources Policies

Policy 2: As part of the development review process, projects shall be evaluated for the project's impacts on existing habitat and wildlife, and for the land's value as viable open space.

Policy 4: Assure that sensitive habitat and wildlife areas, as well as state and federal lands, are appropriately buffered from the built environment.

Policy 5: Promote the protection of biodiversity and proactively encourage an appreciation for the natural environment and biological resources.

Open Space and Conservation Policies

Policy 6: The City shall retain significant areas of natural desert, watercourse and hillside habitat, including migration corridors and wildlife preserves, in order to maintain and enhance the preservation of sensitive biological resources.

City of Rancho Mirage General Plan

The City of Rancho Mirage General Plan includes the following policies and programs that would be applicable to the Proposed Project and alternatives (City of Rancho Mirage, 1997):

Parks and Recreation Policy

Policy 8: Trails shall not encroach upon bighorn sheep lambing areas and shall be designed to minimize impacts to sensitive biological resources.

Biological Resources Policy and Programs

Policy 1: The City shall support and participate in local and regional efforts to evaluate and protect natural habitats, including suitable habitats for rare and endangered species occurring in the City and the vicinity.

Program 1.A. Review and evaluate all development proposals on vacant lands for their impacts on existing habitats and wildlife.

Program 1.B. Maintain an accurate and regularly updated map and information base on sensitive species and habitats in Rancho Mirage and the vicinity.

Program 1.C. Continue to participate in the development and implementation of the Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan with special emphasis on habitats located in the Edom Hill and Santa Rosa Mountain areas.

Program 1.D. Continue to require new developments to prepare wildlife and plant surveys and implement the requirements of the Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan.

City of Indian Wells General Plan

The following policies from the City of Indian Wells General Plan would be applicable to the Proposed Project and alternatives (City of Indian Wells, 1996):

Biological Resources Policies

Policy IIIA4.1: Direct development away from areas of sensitive biological habitat, unless effective mitigation measures can be implemented. Prior to the approval of any development proposed in areas of "high ecological sensitivity," require the applicant to prepare a biological study for the area.

Policy IIIA4.2: Require development proposals to identify significant biological resources and provide mitigation including the use of adequate buffering, selective preservation, the provision of replacement habitat, the used of sensitive site planning techniques and other appropriate measures.

Policy IIIA4.3: Encourage the preservation of areas of riparian vegetation and wildlife habitat along the Whitewater River and Deep Canyon storm channels. Notify the State Department of Fish and Game of any proposed alteration to the floodway riparian habitat.

Policy III4A.4: Support the preservation of wildlife preserves in the area including The Living Desert Reserve, the Phillip L. Boyd Deep Canyon Research Center, the State Bighorn Sheep Reserve, and the Fringe-Toes Lizard Preserve.

Policy IIIA4.5: Require development within the Fringe-Toed Lizard Habitat Conservation Plan boundary to pay an approved fee to be used for the purchase of a refuge for this endangered species.

Policy IIIA4.6: Work with State and regional agencies to preserve and enhance significant biological resources on publicly owned lands.

Water Resources Policy

Policy IIIA5.5: Institute floodplain management techniques, when feasible, such as linear parks, golf courses, and/or open space preservation in lieu of channelization, in conjunction with the preservation of habitat areas as stated in Policy IIIA4.3.

BLM's California Desert Conservation Area Plan

The BLM's California Desert Conservation Area (CDCA) Plan was published in 1980 and amended several times, with the most recent amendments occurring in 1994. The CDCA is a 25-million acre expanse of lands in southern California, of which 10 million acres are administered by the BLM. The BLM was required to inventory resources in the CDCA area after the passage of the Federal Land Policy and Management Act (FLPMA) of 1976. This act required the plan to protect public lands in the California Desert while maintaining multiple land use policies, sustained yield of resources, and environmental quality. All other public land use laws applicable to the CDCA were also required to be viewed within the context of the plan's requirements. The overall goal of the plan is to "provide for the use of the public lands, and resources of the California Desert Conservation Area, including economic, educational, scientific, and recreational uses, in a manner which enhances wherever possible—and which does not diminish, on balance—the environmental, cultural, and aesthetic values of the Desert and its productivity" (BLM, 1994). The following goals are relevant to biological resources, and may be applicable to the BLM lands in the Farrell-Garnet study area:

Wildlife

Goal W.1: Avoid, mitigate, or compensate for impacts of conflicting uses on wildlife populations and habitats. Promote wildlife populations through habitat enhancement projects so that balanced ecosystems are maintained and wildlife abundance provides for human enjoyment.

Goal W.2: Develop and implement detailed plans to provide special management for:

a) Areas which contain rare or unique habitat;

b) Areas with habitat which is sensitive to conflicting uses;

c) Areas with habitat which is especially rich in wildlife abundance or diversity; and

d) Areas which are good representatives of common habitat types. Many areas falling into these categories contain listed species[3], which may become the focus of management as indicator[4] species.

Goal W.3: Manage those wildlife species on the Federal and State lists of threatened and endangered species and their habitats so that the continued existence of each is not jeopardized. Stabilize and, where possible, improve populations through management and recovery plans developed and implemented cooperatively with the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

Goal W.4: Manage those wildlife species officially designated as sensitive by the BLM for California and their habitats so that the potential for Federal or State listing is minimized.

Goal W.5: Include consideration of crucial habitats of sensitive species in all decisions so that impacts are avoided, mitigated, or compensated.

Vegetation

Goal V.1: Maintain the productivity of the vegetative resource while meeting the consumptive needs of wildlife, livestock, wild horses and burros, and man. Provide for such uses under the principles of sustained yield.

Goal V.2: Manage those plant species on the Federal and State lists of threatened and endangered species and their habitats so that the continued existence of each is not jeopardized. Stabilize and, where possible, improve populations through management and recovery plans developed and implemented cooperatively with the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

Goal V.3: Manage those plant species officially designated as sensitive by the BLM for California and their habitats so that the potential for Federal or State listing is minimized. Include consideration of sensitive species habitats in all decisions such that impacts are avoided, mitigated, or compensated.

Goal V.4: Manage unusual plant assemblages (UPAs) so that their continued existence is maintained. In all actions, include consideration of UPA's so that impacts are avoided, mitigated or compensated.

Goal V.5: Manage wetland and riparian areas in the CDCA, with the following specific objectives:

a) Avoid the long-term and short-term impacts associated with the destruction, loss, or degradation of wetland and riparian areas;

b) Preserve and enhance the natural and beneficial values of wetland and riparian areas which may include constraining or excluding those uses that cause significant long-term ecological damage;

[3] A plant or animal species which is on the U.S. Fish and Wildlife Service list of threatened or endangered species, the California State list of rare, threatened or endangered species, or the BLM California State list of sensitive species.

[4] Any species which is so closely tied to a vegetative community that its presence indicates the presence of that community and its absence indicates the absence of that community.

c) Include practical measures to minimize harm in all actions causing adverse impacts on wetlands and riparian areas; and

d) Retain all wetlands and riparian habitats presently under BLM administration wherever high resource values exist and adverse impacts cannot be mitigated.

Goal V.6: Accomplish the objectives of other resource by altering plant composition, density, and/or cover. Objectives include eliminating harmful or noxious plants, increasing livestock or wildlife forage production, and improving wildlife habitat characteristics. Diversified, native plant communities are favored over monocultures or communities based on non-native species.

Coachella Valley CDAC Plan Amendment

The Coachella Valley Amendment of the CDAC was completed in 2002 to more specifically address land use issues in the Coachella Valley area. Most of the guidance in the CDAC remains implemented, and proposed plans and objectives in the Amendment are largely in addition to goals identified in the CDAC. The Amendment for the Coachella Valley includes four alternatives for amended categories; Alternatives A through C represent options for each plan element ranging from less restrictive (A) to more restrictive (C) land uses. Alternative D is a no-action alternative, which effectively means no change from the CDAC will be implemented. The preferred alternative for all measures is an amalgamation of individual plan elements chosen from Alternatives A through C. Preferred alternatives for relevant plan elements are discussed below. The following overall goal of the Coachella Valley Amendment of the CDAC could be relevant to the Proposed Project and alternatives (BLM, 2002):

Goal 2.1.2 (2): Achieve recovery of listed species, and manage species to avoid future listings.

Land Health Standards Element. The purpose of the Land Health Standards Element is to adopt rangeland health standards developed for livestock grazing in consultation with the California Desert District Advisory Council for use as regional land health standards. These standards apply to all BLM lands and programs, and would be implemented through terms and conditions of permits, leases and other authorizations, actions, resource monitoring, and assessments undertaken in accordance with BLM's land use plans. BLM would seek to incorporate these standards into the multi-jurisdictional monitoring program for the CVMSHCP, and to coordinate with local jurisdictions in monitoring and assessment of land health. These standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans. Standards for native species and wetland systems are as follows (BLM, 2002):

Standard 2.1.3.3 (2) Native Species. Healthy, productive, and diverse habitats for native species, including special-status species (Federal T&E, Federal proposed, Federal candidates, BLM sensitive, or California State T&E, and CDD UPAs) are maintained in places of natural occurrence. As indicated by:

a) Photosynthetic and ecological processes continue at levels suitable for the site, season, and precipitation regimes;

b) Plant vigor, nutrient cycle, and energy flow are maintaining desirable plants and ensuring reproduction and recruitment;

c) Plant communities are producing litter within acceptable limits;

d) Age class distribution of plants and animals are sufficient to overcome mortality fluctuations;

e) Distribution and cover of plant species and their habitats allow for reproduction and recovery from localized catastrophic events;

f) Alien and noxious plants and wildlife do not exceed acceptable levels;

g) Appropriate natural disturbances are evident; and

h) Populations and their habitats are sufficiently distributed to prevent the need for listing special status species.

Standard 2.1.3.3 (3) Riparian/Wetland and Stream Function. Wetland systems associated with subsurface, running, and standing water, function properly and have the ability to recover from major disturbances. Hydrologic conditions are maintained. As indicated by:

a) Vegetative cover will adequately protect banks, and dissipate energy during peak water flows;

b) Dominant vegetation is an appropriate mixture of vigorous riparian species;

c) Recruitment of preferred species is adequate to sustain the plant community;

d) Stable soils store and release water slowly;

e) Plant species present indicate soil moisture characteristics are being maintained;

f) There is minimal cover of invader/shallow-rooted species, and they are not displacing deep-rooted native species;

g) Maintain shading of stream courses and water sources for riparian dependent species;

h) Stream is in balance with water and sediment being supplied by the watershed;

i) Stream channel size and meander is appropriate for soils, geology, and landscape; and

j) Adequate organic matter (litter and standing dead plant material) is present to protect the site and to replenish soil nutrients through decomposition.

Habitat Conservation Objectives Element. For the purposes of the Coachella Valley CDCA Plan Amendment, the BLM lands were categorized into eight vegetation community types: (1) sand dunes and sand fields, (2) desert scrub communities, (3) chaparral communities, (4) desert alkali scrub communities, (5) marsh communities, (6) dry wash woodland and mesquite communities, (7) riparian communities, and (8) woodland and forest communities. Conservation objectives were established based on the resource needs for each community type. For each of the eight vegetation community types, the habitat conservation objectives would be used to assess compatible uses and to develop appropriate mitigation measures within CVMSHCP conservation areas on BLM-managed lands. Future activities would be required to conform to the habitat conservation objectives established for a particular community type within the CVMSHCP conservation areas. Activities that cannot meet the habitat conservation objectives would be disallowed. New utilities within utility corridors would be designed to avoid impacts to sensitive

plants and endemic species and their habitats. Two of these vegetation community types are present in BLM lands within the Farrell-Garnet study area: sand dunes and sand fields, and desert scrub communities. Habitat conservation objectives for these two vegetation community types are listed below (BLM, 2002).

Sand Dunes and Sand Fields

a) Conserve at least 99% of extant sand dunes and sand fields.

b) Avoid stabilization of sand dunes due to adjacent development and spread of non-native species.

c) Maintain, and enhance where feasible, aeolian (wind blown) and fluvial (water borne) sand transport systems.

d) Minimize sand compaction to protect CV Jerusalem cricket and giant sand-treader habitat and to minimize crushing of fringe-toed lizards.

e) Minimize roads within flat-tailed horned lizard habitat which are prone to crushing by vehicles.

f) Avoid crushing of burrows, especially for burrowing owl, giant sand-treader cricket, Jerusalem cricket and round-tailed ground squirrel.

g) Avoid disturbance and compaction of sandy habitats associated with CV milk-vetch and avoid crushing of CV milk-vetch plants.

h) Reduce/control spread of non-native plants like Russian thistle and Saharan mustard; and exotic animals such as non-native ants and brown-headed cowbirds.

i) Protect *Tiquilia palmeri* sites, host plant for CV grasshopper.

j) Minimize loss of native vegetation, minimize habitat fragmentation and maintain habitat patch connectivity.

k) Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds.

Desert Scrub Communities

a) Conserve at least 99% of extant desert scrub communities.

b) Minimize habitat loss and fragmentation in bighorn sheep essential habitat.

c) Suppress fire in Sonoran scrub communities to maintain bighorn sheep and desert tortoise habitat.

d) Exclude bighorn sheep from urban areas /provide alternative water sources.

e) Prohibit artificial illumination of mountain slopes on public lands.

f) Prohibit use of pesticides harmful to wildlife.

g) Maintain, and enhance where feasible, aeolian (wind blown) and fluvial (water borne) sand transport systems.

h) Avoid disturbance and compaction of sandy habitats associated with CV giant sand-treader cricket, and CV milk-vetch.

i) Avoid crushing of sensitive plant and animal species.

j) Protect *Tiquilia palmeri* sites, host plant for CV grasshopper.

k) Avoid disturbance to existing /potential Casey's June beetle habitat.

l) Reduce/control spread of non-native plants like Russian thistle, Saharan mustard, and to the extent feasible, exotic annual grasses and forbs to protect desert tortoise forage species.

m) Reduce/control spread of exotic animals such as non-native ants and brown-headed cowbirds.

n) Avoid overgrazing, soil compaction and erosion caused by domestic animals to protect desert tortoise forage species.

o) Minimize poaching, crushing and illegal collection of desert tortoise.

p) Avoid crushing of burrows, especially for burrowing owl, sand-treader cricket, desert tortoise, and Palm Springs round-tailed ground squirrel.

q) Rehabilitate disturbed areas with native vegetation only.

r) Minimize loss of native vegetation, minimize habitat fragmentation and maintain habitat patch connectivity.

s) Prohibit uncontrolled household pets on public lands to minimize predation of reptiles, small mammals and birds.

Communication Sites and Utilities Element. The Communication Sites and Utilities Element states that proposed utilities within designated utility corridors and within conservation areas may be considered, consistent with the habitat conservation objectives. Proposed utilities would be designed or mitigation measures imposed to ensure new utilities within conservation areas avoid impacts to sensitive plants, endemic species, and their habitats (BLM, 2002).

Coachella Valley Fringe-toed Lizard Habitat Conservation Plan

In 1985, The Nature Conservancy wrote the Coachella Valley Fringe-Toed Lizard Habitat Conservation Plan (CVFTL HCP). This HCP established three preserves to protect this reptile, near Thousand Palms, in the Whitewater River floodplain, and on Edom Hill. A mitigation fee area was established and was drawn to include all existing and former habitat. Fees collected were used to acquire and manage lands in the three reserves (The Nature Conservancy, 1985). This HCP was subsumed by the CVMSHCP in 2008 (see below).

Of the three preserves established under this HCP, the Whitewater Floodplain Preserve occurs south of the UPRR tracks, east of Indian Canyon Drive, west of Gene Autry Trail, and north of Whitewater River Canal, and consists of 1,230 acres of BLM and Coachella Valley Water District land. This Whitewater Floodplain Preserve overlaps with portions of the Farrell-Garnet study area, and specifically with portions of the Alternative 2 alignment.

The Coachella Valley Multiple Species Habitat Conservation Plan

The Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) was developed for the Coachella Valley Association of Governments to guide growth and development in the Coachella Valley over a 75-year period. This plan protects 240,000 acres of open space and 27 species, and aims to preserve a system of natural areas and maintain or restore viable populations of the species included therein. Provisions in the plan allow for take permits from the

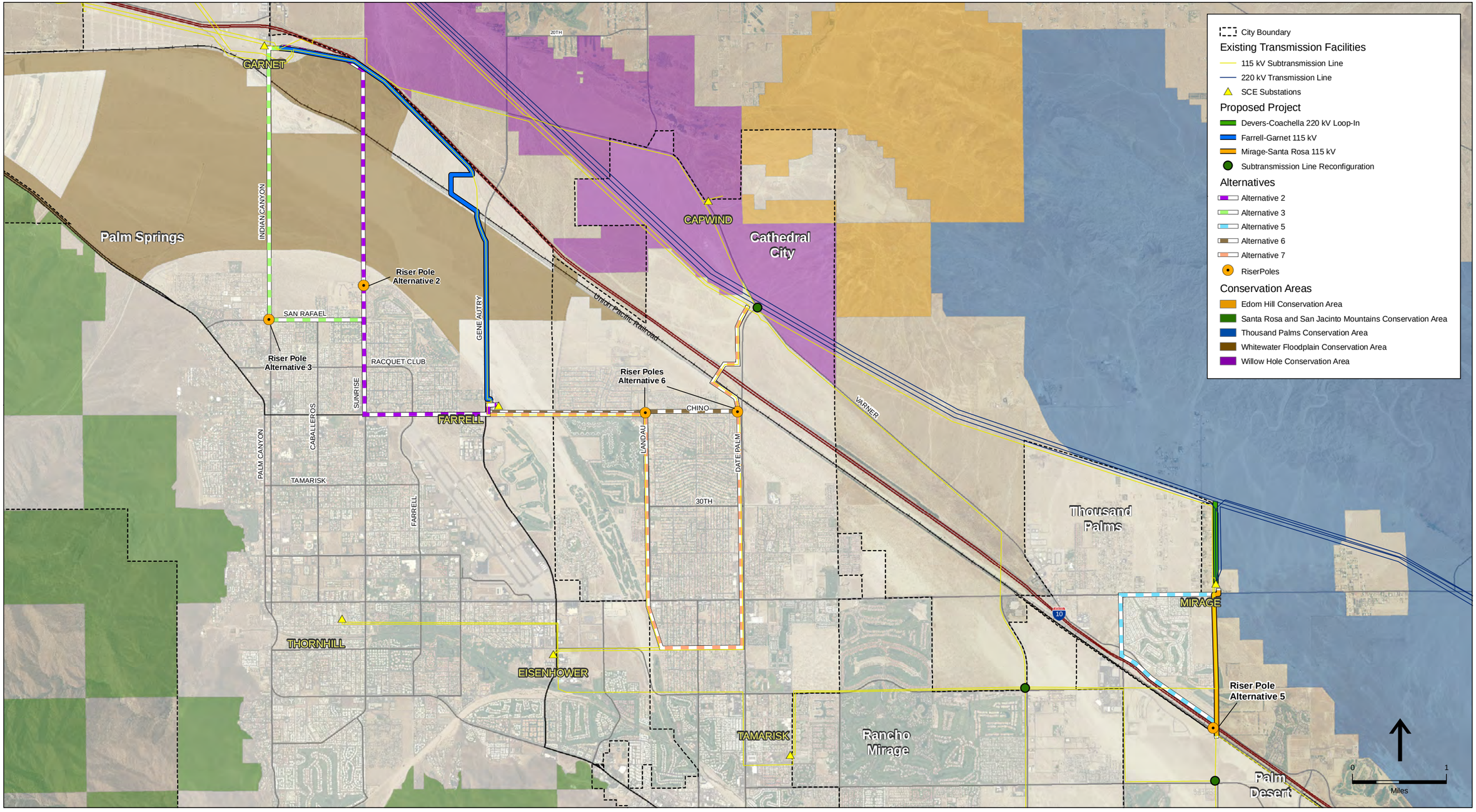
USFWS (Section 10(a)(1)(A) and 10(a)(1)(B)) and the CDFG (Natural Community Conservation Plan) to be obtained for currently listed species and non-listed species that may be listed in the future. The CDFG issued the Natural Community Conservation Plan (NCCP) Permit for the CVMSHCP on September 9, 2008, and the USFWS issued the final permit for the CVMSHCP on October 1, 2008. The proposed Devers-Mirage 115 kV Subtransmission System Split Project is within three CVMSHCP-designated conservation areas – the Whitewater Floodplain Conservation Area, Thousand Palms Conservation Area, and Willow Hole Conservation Area – although this project is not a participant of the CVMSHCP.

Whitewater Floodplain Conservation Area. This conservation area encompasses portions of the Whitewater River floodplain south of I-10 eastward to the existing Whitewater Floodplain Preserve, established by the CVFTL HCP, and now part of the CVMSHCP. See Figure 4.4-3 for an illustration of the Whitewater Floodplain Conservation Area relative to the Proposed Project and alternative alignments and sites. The Whitewater Floodplain Conservation Area contains a total of approximately 7,400 acres. It contains Core Habitat for the CV milkvetch, CV giant sand-treader cricket, CV fringe-toed lizard, Palm Springs round-tailed ground squirrel, and Palm Springs pocket mouse. The proposed Farrell-Garnet 115 kV subtransmission line, Alternative 2, and Alternative 3 alignments all cross through this conservation area.

Willow Hole Conservation Area. This conservation area includes the portions of the Mission Creek flood control channel and Morongo Wash south of the City of Desert Hot Springs; the Mission Creek and Morongo Wash sand depositional areas and aeolian sand transport areas, generally from Mission Creek on the west to Flattop Mountain on the east; and blowsand habitat areas along the San Andreas Fault and at Stebbins' Dune south of Varner Road and west of Date Palm Drive. See Figure 4.4-3 for an illustration of the Willow Hole Conservation Area relative to the Proposed Project and alternative alignments and sites. The Willow Hole Conservation Area contains a total of approximately 5,600 acres, and Core Habitat for the CV milkvetch, CV fringe-toed lizard, Palm Springs round-tailed ground squirrel, and Palm Springs pocket mouse. Alternatives 6 and 7, and the reconfiguration of the subtransmission line at Varner Road and Date Palm Drive are all along the southern boundary of the Willow Hole Conservation Area.

Thousand Palms Conservation Area. This conservation area includes approximately 25,900 acres, composed of the CVFTL Preserve (created under the CVFTL HCP) and the sand source/transport area to the west of it, emanating from Indio Hills. See Figure 4.4-3 for an illustration of the Thousand Palms Conservation Are relative to the Proposed Project and alternative alignments and sites. The Thousand Palms Conservation Area contains Core Habitat for the CV milkvetch, CV giant sand-treader cricket, CV fringe-toed lizard, flat-tailed horned lizard, Palm Springs round-tailed ground squirrel, and Palm Springs pocket mouse. The proposed Devers-Coachella Valley 220 kV Loop-In alignment lies within the western boundary of this conservation area.

Species Conservation Objectives. Each species protected within the HCP has its own set of species conservation objectives. For most species these objectives are similar in that they identify the conservation area where the species is present, and the objectives that apply to that area.



SOURCE: SCE, 2008; CVAG, 2007

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.4-3

Coachella Valley Multiple Species Habitat Conservation Plan Areas

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Table 4.4-2 below summarizes how each objective applies to species that would be potentially affected by the Proposed Project and alternatives, and each of the objectives is paraphrased below.

Objective 1. Ensure conservation of Core or Riparian Habitat within the Conservation Areas.

Objective 1b. Ensure that Coachella Valley Water District will establish permanent riparian habitat, including at least 44 acres of Sonoran cottonwood-willow riparian forest in the Coachella Valley Stormwater Channel and Delta Conservation Area, to replace the habitat that is periodically altered by flood control maintenance activities. This habitat will provide for the conservation of the riparian birds covered by the CVMSHCP.

Objective 2. Conserve Other Conserved Habitat through adherence to other Conservation Objectives (for another species, a natural community, Essential Ecological Process area, Biological Corridor, or Linkage area) in the Conservation Areas.

Objective 3. Ensure protection of Essential Ecological Process areas through Conservation Area Conservation Objectives for Essential Ecological Processes.

Objective 4. Protect Biological Corridors and Linkages through Conservation Area Conservation Objectives for Biological Corridors and Linkages.

Objective 5a. Implement biological monitoring and Adaptive Management actions to ensure self-sustaining populations within each Core Habitat.

Objective 5b. Establish at least two additional self-sustaining populations of the species, if feasible, in previously occupied habitat.

Objective 6. Implement Management and Monitoring Programs to ensure self-sustaining populations within each Core Habitat area.

Natural Community Conservation Objectives. The CVMSHCP established three objectives for conserving and managing occurrences of natural communities in the conservation areas:

Objective 1. Ensure Conservation of this natural community within the Conservation Area.

Objective 2. Ensure protection of Essential Ecological Process areas through Conservation Area Conservation Objectives for Essential Ecological Processes.

Objective 3. Implement biological monitoring and Adaptive Management actions to ensure Conservation of this natural community.

Table 4.4-3 below summarizes which natural community these objectives apply to, as well as which conservation area contains these natural communities.

TABLE 4.4-2
SPECIES CONSERVATION OBJECTIVES BY SPECIES

Species	Conservation Areas Where Species or Potential Habitat is Present	Applicable Objective(s) for Species							
		1a	1b	2	3	4	5a	5b	6
Coachella Valley milkvetch	Whitewater Floodplain, Willow Hole, Thousand Palms	X		X	X	X	X		
Triple-ribbed milkvetch	Whitewater Floodplain	X		X	X	X	X		
Coachella Valley giant sand-treader cricket	Whitewater Floodplain, Willow Hole, Thousand Palms	X		X	X	X	X		
Coachella Valley Jerusalem cricket	Whitewater Floodplain, Willow Hole, Thousand Palms	X		X	X	X	X	X	
Coachella Valley fringe-toed lizard	Whitewater Floodplain, Willow Hole, Thousand Palms	X		X	X	X	X		
Desert tortoise	Whitewater Floodplain, Willow Hole	X		X		X	X		
Flat-tailed horned lizard	Whitewater Floodplain, Willow Hole, Thousand Palms	X		X	X	X	X	X	
Burrowing owl	Whitewater Floodplain, Willow Hole, Thousand Palms	X		X	X	X			X
Crissal thrasher	Willow Hole, Thousand Palms	X		X	X	X	X		
Le Conte's thrasher	Whitewater Floodplain, Willow Hole, Thousand Palms	X					X		
Least Bell's vireo	Willow Hole, Thousand Palms	X	X		X	X			
Yellow warbler	Willow Hole, Thousand Palms	X	X		X	X			
Yellow-breasted chat	Willow Hole, Thousand Palms	X	X		X	X			
Summer tanager	Willow Hole, Thousand Palms	X	X		X	X			
Southwestern willow flycatcher	Willow Hole, Thousand Palms	X	X		X	X			
Palm Springs round-tailed ground squirrel	Whitewater Floodplain, Willow Hole, Thousand Palms	X		X	X	X	X		
Palm Springs pocket mouse	Whitewater Floodplain, Willow Hole, Thousand Palms	X		X	X	X	X		

SOURCE: CVAG, 2007.

TABLE 4.4-3
NATURAL COMMUNITIES PROTECTED AT EACH CONSERVATION AREA

Natural Community	Conservation Areas Where Present
Active desert dunes	Thousand Palms
Stabilized and partially stabilized desert dunes	Willow Hole
Active desert sand fields	Whitewater Floodplain, Willow Hole, Thousand Palms
Ephemeral desert sand fields	Whitewater Floodplain, Willow Hole
Stabilized and partially stabilized desert sand Fields	Whitewater Floodplain, Willow Hole
Stabilized shielded desert sand fields	Whitewater Floodplain
Mesquite hummocks	Willow Hole, Thousand Palms
Sonoran creosote bush scrub	Whitewater Floodplain, Willow Hole, Thousand Palms
Sonoran mixed woody and succulent scrub	Whitewater Floodplain, Willow Hole, Thousand Palms
Sonoran cottonwood-willow riparian forest	Thousand Palms
Desert saltbush scrub	Willow Hole
Desert dry wash woodland	Thousand Palms

SOURCE: CVAG, 2007.

4.4.2 Significance Criteria

Based on Section 15065 and Appendix G of the CEQA Guidelines, the project would result in a significant impact on the environment if it would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS (including List 1A, 1B, and 2 plant species of the CNPS Inventory);

b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS;

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, other approved local, regional, or state habitat conservation plan.

CEQA Section 15380 provides that a plant or animal species may be treated as "Rare or Endangered" even if not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future. As species of plants and animals become restricted in range and limited in population numbers, species may become listed or candidates for listing as Endangered or Threatened and become recognized under CEQA as a significant resource.

In conducting the following impact analysis, three principal components of the CEQA Guidelines outlined above were considered:

- Magnitude of the impact (e.g., substantial/not substantial);
- Uniqueness of the affected resource (i.e., rarity of the resource); and
- Susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource).

The evaluation of the significance of the following impacts considered the interrelationship of these three components. For example, a relatively small magnitude impact to a State or federally listed species would be considered significant because the species is very rare and is believed to be very susceptible to disturbance. Conversely, a natural community such as California annual grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact would be required to result in a significant impact.

4.4.3 Applicant Proposed Measures

SCE has proposed the following APMs to be implemented as part of the Proposed Project.

APM BIO-1. Preconstruction Surveys. Preconstruction biological clearance surveys will be performed to minimize impacts to special-status plant and wildlife.

APM BIO-2. Minimize Vegetation Impacts. Every effort will be made to minimize vegetation removal and permanent loss at construction sites. If necessary, native vegetation will be flagged for avoidance.

APM BIO-3. Avoid Impacts to State and Federal Jurisdiction Wetlands**.** Construction crews will avoid impacting the streambeds and banks of streams along the route to the extent possible. If necessary, a Streambed Alteration Agreement (SAA) will be secured from the CDFG. Impacts will be mitigated based on the terms of the SAA. No streams with flowing waters capable of supporting special-status species will be expected to be impacted by the project.

APM BIO-4. BMPs**.** Crews will be directed to use Best Management Practices (BMPs) where applicable. These measures will be identified prior to construction and incorporated into the construction operations**.**

APM BIO-5. Biological Monitors**.** Biological monitors will be assigned to the project in areas of sensitive biological resource. The monitors will be responsible for ensuring that impacts to special status species, native vegetation, wildlife habitat, or unique resources will be avoided to the fullest extent possible. Where appropriate, monitors will flag the boundaries of areas where activities need to be restricted in order to protect native plants and wildlife or special status species. Those restricted areas will be monitored to ensure their protection during construction.

APM BIO-6. Worker Environmental Awareness Program. A Worker Environmental Awareness Program (WEAP) will be prepared. All construction crews and contractors will be required to participate in WEAP training prior to starting work on the project. The WEAP training will include a review of the special status species and other sensitive resources that could exist in the project area, the locations of sensitive biological resources and their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. A record of all trained personnel will be maintained.

APM BIO-7. Avoid Impacts to Active Nests. SCE will conduct project-wide raptor surveys and remove trees, if necessary, outside of the nesting season (nesting season is usually February 1 to August 31). If a tree or pole containing a raptor nest must be removed during nesting season, or if work is scheduled to take place in close proximity to an active nest on an existing transmission tower or pole, SCE will coordinate with the CDFG and USFWS and obtain written verification prior to moving the nest.

APM BIO-8.[5] Avian Protection. All transmission and subtransmission towers and poles will be designed to be raptor-safe in accordance with the Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006 (Avian Power Line Interaction Committee, 2006).

[5] APM BIO-8 was identified as BIO-9 in the PEA.

APM BIO-9.[6] Coachella Valley Milkvetch. Surveys for Coachella Valley milkvetch will be performed within 1 year prior to construction, between February and early May, during the plant's growing and flowering season. GPS coordinates of plant locations will be recorded with high precision (to within 1 meter) and stored in an electronic database. Plants will be marked conspicuously with pin flags and avoided during construction to the greatest extant possible. Following the completion of construction, areas compacted during temporary construction activities (e.g., lay-down areas, pulling sites) will be scarified, if deemed necessary, to enhance germination of this species.

A compensation fee for habitat loss shall be paid to BLM or a land conservation organization, as approved by the USFWS, for acquisition of replacement habitat. The agreed-upon fee amount will be $5,000 (not to exceed $7,246) per acre for the three acres of temporary impacts ($15,000 total). In addition, there will also be a one-time fee of 15 percent, in the amount of $2,250 (not to exceed $3,261) to cover overhead costs associated with habitat acquisition. Total compensation funds will not exceed $25,000 without the written concurrence of SCE, BLM, and the USFWS. These actions shall be coordinated with the BLM or a land conservation agency and approved by the USFWS. Funds shall be paid prior to beginning the Proposed Project and will mitigate both direct/indirect impacts of construction and operations and management.

APM BIO-10.[7] Coachella Valley Fringe-toed Lizard. Coachella Valley fringe-toed lizards are restricted to isolated deposits of loose windblown sand associated with hummocks west and east of Gene Autry Trail (where the road crosses the UPRR tracks). The Farrell-Garnet easement in this area encompasses approximately 3.35 acres of potential habitat, of which approximately 1.0 acre was occupied by fringe-toed lizards in June 2006. While active, Coachella Valley fringe-toed lizards flee readily from danger and threats and will be inclined to move as construction activities begin. All construction work within Coachella Valley fringe-toed lizard habitat will be performed during the lizards' active season. Determination of the active season will be based on temperatures being consistently above 80 degrees Fahrenheit and the observation of activity at a nearby reference population. The active season is typically between May and September. Specific protections that SCE will implement for the Coachella Valley fringe-toed lizard are summarized as such:

1. Protocol-level surveys will be conducted within 1 year of construction activities to determine presence or absence of Coachella Valley fringe-toed lizards.

2. All construction areas in Coachella Valley fringe-toed lizard habitat will be fenced and completely enclosed to keep the lizards from entering active work areas. Fencing will include fences leading up to and encircling the specific subtransmission poles where work will be performed and along the western edge of Gene Autry Trail, north along the overpass (to prevent lizards from entering the road). Silt fencing will be used and buried to a depth of 8 to 12 inches. The access end of the enclosed area shall be kept closed except to allow immediate access to equipment and personnel. An area between the existing tamarisk trees (bordering the UPRR tracks) and the northern-most pole south of the railroad tracks will remain unfenced to allow fringe-toed lizards to move back and forth.

3. Qualified biologists shall conduct clearance surveys within the enclosed construction sites. Parallel transects spaced 20 feet apart will be performed within 48 hours before the initiation of construction. Surveys shall provide 100-percent coverage of the

6 APM BIO-9 was identified as BIO MIT-1 in the PEA.
7 APM BIO-10 was identified as BIO MIT-2 in the PEA.

entire enclosed construction area. The area underneath shrubs and surrounding large rocks and boulders will be gently raked to expose hidden lizards. Surveys will be repeated and construction not allowed to begin until two consecutive surveys fail to reveal fringe-toed lizards.

4. A biological monitor will oversee all construction activities within Fringe-toed Lizard habitat. The monitor will have in their possession a federal 10(a)(1)(A) permit and associated Memorandum of Understanding (MOU) from CDFG. When a Coachella Valley fringe-toed lizard is found during surveys, the exclusionary fencing will be opened or lifted, and the lizard will be encouraged to run through the opening to the outside of the work area, after which the fencing will be closed again. Capture of fringe-toed lizards will be allowed by net, noose, or by hand only if a lizard is not moving out of the fenced project area through encouragement or of its own volition. A new pair of latex or synthetic gloves will be used for each lizard handled.

5. If any Coachella Valley fringe-toed lizards are captured as above, they will be released immediately to the west of the project footprint (to a distance of up to 500 feet outside the enclosed area, away from any active roadways) in loose sand contiguous with the area at which construction is occurring. The immediate area will be searched for snakes, and if found, a different microsite will be found. Fringe-toed lizards will be released in the shade of a shrub. No lizards will be in captivity or in transport for longer than 10 minutes after their initial capture within an enclosed construction area. Lizards will be transported in clean, white, plastic 5-gallon buckets.

6. All movement of construction vehicles outside of the ROW will be restricted to predesignated access, contractor-acquired access, or public roads.

7. If road stabilization is required for the temporary access roads, the materials used for stabilization will consist of temporary, easily removable material (e.g., mats laid down on sand, rather than gravel).

8. The real limits of construction within the ROW will be predetermined, with activity restricted to and confined within those limits. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.

9. Construction and maintenance vehicles will not exceed a speed of 10 miles per hour in Coachella Valley fringe-toed lizard habitat.

10. To the extent possible, construction operations within habitat for the Coachella Valley fringe-toed lizard shall occur when the air temperatures 1 inch above the ground in the shade are between 96 degrees and 112 degrees Fahrenheit, preferably between April 1 and October 30, contingent upon activity being observed at a nearby reference population. However, if protocol-level clearance surveys have been performed within 48 hours prior to construction, work may proceed (with a biological monitor present) outside of these parameters (e.g., construction during the evening hours).

11. Any spoils will be stockpiled in previously disturbed areas that have been examined for the presence of Coachella Valley fringe-toed lizards by a qualified biologist. Those areas will be fenced and cleared of lizards prior to use as in steps 1 through 5 above.

12. Existing sand-retaining lattice fences in the ROW will be repaired or replaced.

13. After construction, compacted soils will be scarified and seeded with twinbugs (*Dicoria canescens*) in low density.

14. Clearance surveys will be repeated if more than 72 hours elapse between work sessions, if any portion of a fence is removed or blown down, or if measurable rainfall occurs.

APM BIO-11.[8] Burrowing Owl. During and prior to breeding season, preconstruction surveys will be performed in all work areas to identify areas where burrowing owls or potential burrows exist. Previously documented burrows will be revisited. Potential burrows will be searched to determine occupancy, and if vacant, will be collapsed outside of nesting season. In collaboration with CDFG and the accepted relocation strategy, occupied burrows, if any, will be fitted with exclusionary devises that allow exit, but not re-entrance, of a burrowing owl into a burrow outside of nesting season. If active burrows are located during nesting season, construction within 450 feet of the burrow will be delayed until the young have fledged.

4.4.4 Biological Resources Impacts and Mitigation Measures

Approach to Analysis

This section identifies potential impacts to the biological resources that would result under the Proposed Project, while Section 4.4.5, below, identifies potential impacts that would result under the alternatives. For both sections, the impact analysis focuses on foreseeable changes to the baseline conditions in the context of the significance criteria presented above and restated below for ease of reference. This analysis includes an evaluation of the potential direct and indirect effects of the Proposed Project and alternatives. Definitions and examples of these effects within the context of biological resources are provided below.

- **Direct Effects.** Direct or primary effects are those effects that are caused by the project and occur at the same time and place (CEQA Guideline Section 15358). Examples of these types of effects to biological resources include incidental take during construction, elimination of suitable habitat due to project construction, and degradation of habitats due to construction related activities.

- **Indirect Effects.** Indirect or secondary effects are those effects that are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable (CEQA Guideline Section 15358). Examples of these types of effects to biological resources include the discharge of sediment or chemicals that adversely affect water quality downstream of the project site, an increase in human activity during project operations, and potential growth-inducement effects.

- **Cumulative Impacts.** Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts (CEQA Guideline Section 15355). These include the effects of future projects that are reasonably certain to occur within the area of the Proposed Project, and which may cumulatively increase the magnitude of effects described previously.

8 APM BIO-11 was identified as BIO MIT-3 in the PEA.

Examples of these types of effects to biological resources include the effects of a cumulative loss of habitat for a special status species due to other planned projects in the area.

The Proposed Project subtransmission and transmission lines would have the potential to have direct and indirect effect on terrestrial biological resources in the region. These potential effects include construction-related disturbance to wetlands (i.e., Whitewater Wash), loss of sensitive natural communities, and impacts to special-status plant and wildlife species and their habitat. Mitigation measures were developed to reduce the level of significance of potential impacts. Mitigation measures focused first on minimization and avoidance of biological resources where possible. Where impacts could not be avoided, compensation for potential impacts is proposed.

The proposed substation modifications at the Devers, Eisenhower, Farrell, Garnet, Thornhill, Mirage, Concho, Indian Wells, Santa Rosa, and Tamarisk substations consist solely of electrical system and safety upgrades in developed habitat (except where a driveway is proposed on the east side of Farrell Substation, in undeveloped and highly disturbed habitat with one ornamental shrub), and the associated construction, operation, and maintenance activities would have no impact with respect to biological resources.

The impacts and mitigations below are organized to respond to the broad impact significance categories as defined in CEQA Guidelines (14 Cal. Code Regs. Sec. 15064).

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS (including List 1A, 1B, and 2 plant species of the CNPS Inventory).

Several special-status species are present in the Farrell-Garnet and Mirage-Santa Rosa study areas. The greatest potential for impacts to special-status species would occur as a result of construction activities associated with the proposed Farrell-Garnet 115 kV subtransmission line because the proposed alignment for this line has less disturbed habitat and more known occurrences of the CV milkvetch and CV fringe-toed lizard, and is within the CVMSHCP's Whitewater Floodplain Conservation Area. While most of the poles associated with the proposed Farrell-Garnet 115 kV subtransmission line would be installed within existing ROW, a portion of the line would deviate from the existing SCE ROW north of the UPRR for approximately 0.8 mile, and a new road would be constructed to access this portion of the alignment. In addition, a new access road would be constructed along the east side of the Farrell Substation.

Development west of the Mirage-Santa Rosa study area has reduced Aeolian sands in all but approximately 100 feet of the northern portion of the proposed Mirage-Santa Rosa 115 kV alignment, making most of the Devers-Coachella Valley 220 kV Loop-In and Mirage-Santa Rosa 115 kV alignments low quality habitat for most sand-endemic species. In addition, the proposed 220 kV loop-in would be built within a long-existing and frequently maintained utility corridor, where habitat is currently degraded and has a low potential for listed species.

Construction

Impact 4.4-1: Construction activities could result in adverse impacts to Coachella Valley milkvetch. ***Less than significant with mitigation*** **(Class II)**

Coachella Valley (CV) milkvetch is known to occur in the Farrell-Garnet study area – primarily in the disturbed roadside within 60 feet of Gene Autry Trail. There are currently subtransmission lines and an established ROW that is periodically disturbed in areas where suitable habitat is present for the CV milkvetch along the proposed Farrell-Garnet alignment (within 60 feet of Gene Autry Trail, south of the UPRR). Removal of eight wood poles in this stretch of the alignment would temporarily impact approximately 0.48 acre, and installation of nine new poles would permanently impact approximately 0.54 acre of CV milkvetch habitat. These estimates are based on an assumed 0.06 acres of disturbance for each structure.

CV milkvetch was observed in 2005 along Varner Road near the proposed subtransmission line reconfiguration at Date Palm Drive and Varner Road (CDFG, 2009). Although this location is predominantly composed of ruderal species, there is still potential for this species to occur.

There are also several CNDDB records for this species within the Mirage-Santa Rosa study area (CDFG, 2009), although there is less suitable habitat for this species due to the lack of Aeolian sands. There is a 1993 CNDDB record for CV milkvetch at the location of the proposed subtransmission line reconfiguration at Portola and Gerald Ford Drive (CDFG, 2009), and a 1985 record for CV milkvetch along Bob Hope Drive where the Bob Hope and Dinah Shore Drive reconfiguration is proposed. Although both of these locations are currently predominantly composed of ruderal species, there is still potential for the CV milkvetch to occur.

Direct impacts could occur if construction activities associated with the Proposed Project crush this species, or disturb its habitat by compacting or excavating the soil where it grows. However, since proposed construction activities would occur from April to October, when the CV milkvetch, a winter annual or semi-perennial, will have already flowered and gone to seed. Therefore, reproductive output for the year would not be affected.

Indirect impacts could occur if non-native species such as Russian thistle and Saharan mustard are introduced into CV milkvetch habitat through construction activities, and the introduced species outcompete the CV milkvetch for habitat. However, the CV milkvetch seems to prefer disturbed soils (SCE, 2007), and thus construction activities could actually improve habitat in the project area for this species.

Implementation of APM BIO-1 (Preconstruction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-5 (Biological Monitors), and APM BIO-6 (Worker Environmental Awareness Program) would help mitigate impacts to the CV milkvetch. With the additional implementation of Mitigation Measure 4.4-1, which supersedes APM BIO-9 (Coachella Valley Milkvetch), as well as any additional measures required by the USFWS, the Proposed Project would result in less than significant impacts to the CV milkvetch.

Mitigation Measure 4.4-1: Coachella Valley Milkvetch. Surveys for Coachella Valley milkvetch shall be performed within one year prior to construction, between February and early May, during the plant's growing and flowering season. GPS coordinates of plant locations shall be recorded with high precision (to within one meter), stored in an electronic database, and submitted to the USFWS and the CNDDB within one year of the survey. Plants shall be marked conspicuously with pin flags and avoided during construction to the greatest extent possible. Following the completion of construction, areas compacted during temporary construction activities (e.g., lay-down areas, pulling sites) shall be scarified, if deemed necessary, to enhance germination of this species.

Temporary and permanent impacts to habitat for the CV milkvetch shall be compensated for through conservation of suitable habitat for this species. The calculated replacement for habitat loss for the CV milkvetch shall be based on a ratio of 3:1 (compensation to impact) per acre for temporary impacts and 9:1 for permanent impacts, for an estimated total of 6 acres. Ratios reflect the limited habitat and low populations of this species across its range, and the loss of habitat available for this species in the project area. The replacement habitat shall be within the Whitewater Floodplain Conservation Area of the CVMSHCP. Total compensation funds shall include the costs of acquisition and long-term management, and shall be paid prior to the start of project operations. This replacement habitat shall mitigate for both direct and indirect impacts of construction and operations/management on this species, as well as the CV fringe-toed lizard (see Mitigation Measure 4.4-2, below), Palm Springs pocket mouse, Palm Springs round-tailed ground squirrel, CV giant sand-treader cricket, and Le Conte's thrasher.

Significance after Mitigation: Less than Significant.

Impact 4.4-2: Construction activities could result in adverse impacts to Coachella Valley fringe-toed lizard and flat-tailed horned lizard. ***Less than significant with mitigation*** **(Class II)**

The Coachella Valley (CV) fringe-toed lizard occurs in the Farrell-Garnet study area along the proposed Farrell-Garnet 115 kV subtransmission line alignment south of the UPRR, on the east and west sides of Gene Autry Trail. The Farrell-Garnet alignment in this area encompasses approximately 3.35 acres of potential habitat, of which approximately 1.0 acre was occupied by fringe-toed lizards during EPG protocol-level surveys in 2006. In this area of potential habitat, there are currently subtransmission lines, poles, access roads, and an established ROW that is periodically disturbed. Thus, replacing poles and using existing roads would not cause additional obstruction of natural sand transport, which would potentially reduce CV fringe-toed lizard habitat quality. However, removal of eight wood poles in this stretch of the alignment would temporarily impact approximately 0.48 acres, and installation of nine new poles would permanently impact approximately 0.54 acres of CV fringe-toed lizard habitat, assuming that 0.06 acres of habitat would be impacted per structure.

The Devers-Coachella Valley 220 kV Loop-In would permanently impact approximately 8.75 acres of USFWS-designated critical habitat for the CV fringe-toed lizard and would

temporarily impact approximately 9.1 acres through the addition of nine lattice-steel towers (LSTs) and the widening of existing access and spur roads. New temporary laydown and pulling areas would be required for construction, resulting in approximately 5.5 acres that would be temporarily affected. To reduce temporary impacts, the areas would be scarified and allowed to return to natural conditions after the completion of work. Although the proposed loop-in alignment passes through critical habitat for the CV fringe-toed lizard, constituent habitat components (e.g., Aeolian sand) are not present along the alignment and this species was not detected along this alignment during EPG's 2006 surveys; thus, the potential for actual impacts to this species is considered low (EPG, 2006b).

CV fringe-toed lizards could be directly impacted by the Proposed Project if they are crushed by construction equipment, particularly if they are in torpor (i.e. if they are hibernating in cold temperatures, or aestivating in hot temperatures) and cannot flee from the equipment. They could also be impacted if they become trapped in holes that are excavated for power poles, if they become stressed from project construction noise or vibration, or if there is temporary or permanent loss of habitat where access roads are constructed, where poles are installed, at wire-pulling and wire splicing sites, or at construction and staging yards. Indirect impacts could occur if non-native plant species are introduced into the area by construction workers and equipment.

The flat-tailed horned lizard could also occur in the project area. Although not observed during 2006 or 2009 focused surveys for the Coachella Valley fringe-toed lizard (SCE and TRC, 2009b and 2009c), at which time this species would have been identifiable, there is a 1995 record of this species near the Gene Autry Trail (CDFG, 2009). The CVMSHCP considers the area where the proposed Farrell-Garnet 115 kV subtransmission is proposed to be moderately suitable habitat, and the area where the loop-in is proposed to be suitable habitat (CVAG, 2007).

Implementation of APM BIO-1 (Preconstruction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-5 (Biological Monitors), and APM BIO-6 (Worker Environmental Awareness Program), would help mitigate potential impacts to the CV fringe-toed lizard and flat-tailed horned lizard during construction activities. Implementation of Mitigation Measure 4.4-2, below, supersedes measure APM BIO-10 (Coachella Valley Fringe-toed Lizard), and would also reduce impacts on CV fringe-toed lizard and flat-tailed horned lizard. Together, these measures would reduce potential adverse affects on these species during construction activities, to a less-than-significant level.

> **Mitigation Measure 4.4-2: Coachella Valley fringe-toed lizard and flat-tailed horned lizard**. Construction work within Coachella Valley fringe-toed lizard habitat shall adhere to the following measures:
>
> - As determined at the time of construction, depending upon existing habitat conditions and the results of the protocol-level surveys for the CV fringe-toed lizard, a survey for this species according to the approved USFWS and CDFG Coachella Valley fringe-toed lizard survey protocol shall be conducted to determine presence or absence of Coachella Valley fringe-toed lizards, within 48 hours of erecting an Environmental Sensitive Area (ESA) exclusion fence.

- ESA exclusion fences shall enclose all construction areas in fringe-toed lizard habitat. The location of these fences shall be based on existing conditions and the results of protocol-level surveys for this species, and a map indicating the proposed location of these fences shall be submitted to the USFWS for approval, prior to erecting them. At a minimum, ESA fences shall be erected along the proposed Farrell-Garnet alignment, on both sides of the Gene Autry Trail south of the UPRR. Fences shall be erected after one pre-construction survey (described in the previous bullet) is conducted, and shall be maintained to keep the Coachella Valley fringe-toed lizards from entering active work areas. Silt fencing shall be buried to a depth of eight to 12 inches. A second pre-construction survey within the ESA shall be conducted to remove any remaining fringe-toed lizards from the construction footprint. Generally, ESA fencing is anticipated to be erected along the Farrell-Garnet alignment.

- SCE and/or its construction contractors shall retain and have available, the services of a CPUC authorized biologist who shall perform the duties of the biological monitor. The biological monitor shall be required to conduct a pre-construction survey of the project site and any associated staging areas; provide employee WEAP training (see APM BIO-6 [Worker Environmental Awareness Program], above); monitor the temporary ESA fence installation; and perform construction monitoring. The construction monitor shall ensure that the contractor maintains the integrity of the biological fencing during the entire construction duration. The authorized biologist shall have previous experience handling fringe-toed lizards. The authorized biologist shall submit a protocol for capture and release of Coachella Valley fringe-toed lizards prior to initiating survey methods. Capture of Coachella Valley fringe-toed lizards and flat-tailed horned lizards shall be allowed by net, noose, or by hand. A new pair of latex or synthetic gloves shall be used for each lizard handled.

- If any Coachella Valley fringe-toed lizards of flat-tailed horned lizards are captured, they shall be released immediately in a mapped area approved by the USFWS prior to the pre-construction survey. The release area shall be searched for snakes, and if found, a different location shall be found. Lizards shall be released in the shade of a shrub. No lizards shall be in captivity or in transport for longer than 10 minutes after their initial capture within an enclosed construction area. Lizards shall be transported in clean, white, plastic five-gallon buckets.

- All movement of construction vehicles outside of the ROW shall be restricted to pre-designated access or public roads. Access sites along Gene Autry Trail and in the Coachella Valley fringe-toed lizard critical habitat shall be designated on the ESA fencing map and approved by the USFWS, prior to construction.

- If road stabilization is required for the temporary access roads, the materials used for stabilization shall consist of temporary, easily removable material (e.g. mats laid down on sand, rather than gravel). No gravel shall be dumped on the ROW in fringe-toed lizard habitat.

- The real limits of construction within the ROW shall be predetermined, with activity restricted to and confined within those limits and placed on a map, submitted to the USFWS for their approval prior to construction. No paint or permanent discoloring agents shall be applied to rocks or vegetation to indicate survey or construction activity limits.

- Construction and maintenance vehicles shall not exceed a speed of 10 miles per hour in Coachella Valley fringe-toed lizard habitat (on the access roads and road shoulders along the Gene Autry Trail roadway, and in designated Coachella Valley fringe-toed lizard critical habitat).

- Construction operations within occupied Coachella Valley fringe-toed lizard habitat shall occur when this species is typically active, which is when the air temperatures one inch above the ground in the shade are between 96 degrees and 112 degrees Fahrenheit, preferably between April 1 and October 30, contingent upon activity being observed at a nearby reference population. Work may occur during the evening hours and outside the active season (when the temperatures are cooler and the electrical demand is lower), if the necessary clearance surveys are conducted during the appropriate temperatures, the silt fencing is maintained, and no Coachella Valley fringe-toed lizards have entered the project area.

- Spoils shall be stockpiled in previously disturbed areas that have been examined for the presence of Coachella Valley fringe-toed lizards and flat-tailed horned lizards by the authorized biologist. Stockpile placement sites shall be mapped on the ESA fencing map and submitted to the USFWS for approval prior to beginning construction.

- Existing sand-retaining lattice fences in the ROW shall be repaired or replaced.

- At least one month prior to construction, a vegetation restoration plan shall be submitted to the USFWS for approval in the areas of occupied Coachella Valley fringe-toed lizard habitat (generally, on the east and west side of the Gene Autry roadway). Each plant that is destroyed due to construction in the ROW along the east and west side of Gene Autry Trail roadway shall be replaced and monitored for at least ten years, or other period of time approved by the USFWS, to ensure at least 60 percent replacement of the impacted Coachella Valley fringe-toed lizard habitat.

- Clearance surveys shall be repeated if more than 72 hours elapse between work sessions, if any portion of a fence is removed or blown down, or if measurable rainfall occurs.

- Temporary and permanent impacts to CV fringe-toed lizard habitat shall be mitigated through conservation of suitable habitat for this species. The calculated replacement for habitat loss for this species shall be based on a ratio of 3:1 (compensation to impact) per acre for temporary impacts and 9:1 for permanent impacts, for an estimated total of 6 acres. Ratios reflect the limited habitat and low populations of this species across its range, and include both the loss of habitat use by the species, and the adverse effect of raptor predation caused by the new raptor perch availability at the new poles. The replacement habitat shall be within the Whitewater Floodplain Conservation Area of the CVMSHCP. Total compensation funds shall include the costs of acquisition and long-term management, and shall be paid prior to the start of Proposed Project operations. This replacement habitat shall mitigate for both direct and indirect impacts of construction and operations/management on this species, as well as the Palm Springs pocket mouse, Palm Springs round-tailed ground squirrel, CV giant sand-treader cricket, Le Conte's thrasher, flat-tailed horned lizard, and CV milkvetch (habitat conserved through this measure may be the same as that conserved through Mitigation Measure 4.4-1 for the CV milkvetch).

Significance after Mitigation: Less than Significant.

Impact 4.4-3: Construction activities could result in adverse impacts to Palm Springs round-tailed ground squirrel and Palm Springs pocket mouse. ***Less than significant with mitigation*** **(Class II)**

As discussed in the setting above, there is potential for the Palm Springs round-tailed ground squirrel and the Palm Springs pocket mouse to be present in the project area. If present, these species could be directly impacted if they are crushed by construction equipment or if their burrow is collapsed while they are inside. Furthermore, impacts may occur if there is a loss of habitat due to clearing and grading activities for access roads, ROW, pole and tower pads, and staging areas. Implementation of APM BIO-1 (Pre-Construction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-4 (BMPs), APM BIO-5 (Biological Monitors), APM BIO-6 (Worker Environmental Awareness Program), and Mitigation Measure 4.4-1, which calls for the replacement habitat for impacts to CV milkvetch habitat, would reduce potential impacts on this species. These measures, in addition to Mitigation Measure 4.4-3 for the Palm Springs round-tailed ground squirrel, would reduce impacts on these two species to a less-than-significant level.

> **Mitigation Measure 4.4-3: Palm Springs round-tailed ground squirrel colonies.** SCE and/or its contractors shall flag and avoid all known Palm Springs round-tailed ground squirrel burrow colonies within the area of impact. To the extent feasible, ground squirrel colonies of unknown species within the project alignment shall also be avoided.

Significance after Mitigation: Less than Significant.

Impact 4.4-4: Construction activities could result in adverse impacts to Coachella Valley giant sand-treader cricket. ***Less than significant with mitigation*** **(Class II)**

The Coachella Valley giant sand-treader cricket could be present in the project area. If present, this species could be directly impacted if it is crushed by construction equipment, or if there is a loss of habitat due to clearing and grading activities for access roads, ROW, tower pads, and staging areas. Surveys and avoidance for this species would be difficult. Implementation of APM BIO-1 (Pre-Construction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-4 (BMPs), APM BIO-5 (Biological Monitors), APM BIO-6 (Worker Environmental Awareness Program), and the replacement habitat for impacts to CV milkvetch and CV fringe-toed lizard habitat described above in Mitigation Measures 4.4-1 and 4.4-2 would reduce potential impacts on this species to a less-than-significant level.

> **Mitigation Measure:** Implement Mitigation Measures 4.4-1 and 4.4-2.

Significance after Mitigation: Less than Significant.

Impact 4.4-5: Construction activities may impact protected native, nesting birds. *Less than significant with mitigation* (Class II)

Several native bird species are known to occur in the project areas; including special-status species such as ferruginous hawk, loggerhead shrike, and burrowing owl (impacts specifically for the burrowing owl are discussed under Impact 4.4-6). Construction activities associated with the Proposed Project, including installation and removal of poles/towers, grading, preparation of temporary work areas, and operation of heavy equipment could disturb wintering birds and nesting birds, and cause nest site abandonment and/or reproductive failure through an increase in noise, human presence, and/or removal of habitat. Implementation of APM BIO-1 (Pre-Construction Surveys), APM BIO-7 (Avoid Impacts to Active Nests), and Mitigation Measure 4.4-5, below, are consistent with the CVMSHCP's *Required Avoidance, Minimization, and Mitigation Measures,* and would reduce potential impacts to nesting birds to a less-than-significant level.

> **Mitigation Measure 4.4-5: Nesting native birds.** SCE and/or its contractors shall implement the following measures to avoid impacts on nesting raptors and other protected birds for activities that are scheduled during the breeding season (February 1 through August 31):
>
> - No more than two weeks before construction within each new construction area, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within 500 feet of construction sites where access is available.
>
> - If active nests are not identified, no further action is necessary. If active nests are identified during preconstruction surveys, a no-disturbance buffer shall be created around active raptor nests and nests of other special-status birds during the breeding season, or until it is determined that all young have fledged. Typical buffers are 500 feet for raptors and Le Conte's thrasher, and 250 feet for other nesting birds (e.g., waterfowl, and passerine birds). The size of these buffer zones and types of construction activities that are allowed in these areas could be further modified during construction in coordination with CDFG, and shall be based on existing noise and disturbance levels in the project area.

Significance after Mitigation: Less than Significant.

Impact 4.4-6: Construction activities could result in direct and indirect impacts on burrowing owl. *Less than significant with mitigation* (Class II)

Burrowing owls are present within the Farrell-Garnet study area, and could occur in the Mirage-Santa Rosa study area. If present, the burrowing owl could be directly impacted if they are injured or killed from construction equipment, or if there is a loss of habitat due to clearing and grading

activities for access roads, ROW, tower pads, and staging areas. This species could be indirectly impacted if construction-related noise and activity, such as installation and removal of poles/towers, grading, preparation of temporary work areas, and operation of heavy equipment, disturbs nesting owls and causes nest failure. In addition, this species could be indirectly impacted if the proposed poles/towers and conductor lines result in increased raptor perches, and the raptors then predate on the burrowing owls.

Implementation of APM BIO-1 (Preconstruction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-5 (Biological Monitors), and APM BIO-6 (Worker Environmental Awareness Program) would help reduce adverse impacts to this species. These measures and Mitigation Measure 4.4-6, which supersedes APM BIO-11 (Burrowing Owl), and which is consistent with the CVMSHCP's *Required Avoidance, Minimization, and Mitigation Measures* for burrowing owls, would reduce potential impacts on burrowing owls to a less-than-significant level.

> **Mitigation Measure 4.4-6: Burrowing owl.** No more than two weeks before beginning construction, a survey for burrows and burrowing owls shall be conducted by a qualified biologist within 500 feet of the project (access permitting), where suitable habitat is present. The survey shall conform to the protocol described by the California Burrowing Owl Consortium (1995), which includes up to four surveys on different dates if there are suitable burrows present. If unoccupied burrows are found within the survey area, they shall be collapsed outside of nesting season.
>
> If occupied owl burrows are found within the survey area, a determination shall be made by a qualified biologist, in consultation with the CDFG, as to whether or not work will affect the occupied burrows or disrupt reproductive behavior.
>
> - If it is determined that construction will not affect occupied burrows or disrupt breeding behavior, construction shall proceed without any restriction or mitigation measures.
>
> - If it is determined that construction will affect occupied burrows during the non-breeding season (August through February), the subject owls shall be passively relocated from the occupied burrow(s) according to a plan approved by the CDFG. The plan shall include installation of one-way doors in occupied burrows at least 48 hours before the burrows are excavated, and shall provide for the owl's relocation to nearby lands that possess available nesting habitat.
>
> - If it is determined that construction will physically affect occupied burrows or disrupt reproductive behavior during the nesting season (March through July), then avoidance is the only mitigation available. Construction shall be delayed within 250 feet of occupied burrows until it is determined that the subject owls are not nesting or until a qualified biologist determines that juvenile owls are self-sufficient or are no longer using the natal burrow as their primary source of shelter.

Significance after Mitigation: Less than Significant.

Operations

Impact 4.4-7: Operation of new subtransmission and transmission lines could impact raptors as a result of electrocution or collision. *Less than significant* (Class III)

Poles, towers, and power lines pose a danger to raptors as a result of electrocution and collision hazards, and are a recognized source of raptor mortality. Power line electrocution is the result of two interacting factors: raptor behavior and pole design. Raptors are opportunistically attracted to power lines because they provide perch sites for hunting, resting, feeding, for territorial defense, or as nesting structures. Many standard designs of electrical industry hardware place conductors and groundwires close enough together that raptors can touch them simultaneously with their wings or other body parts, causing electrocution. Raptors and other birds may also collide with power lines, which can be difficult for birds to detect for various reasons such as during night flight or during inclement weather conditions.

The type and magnitude of such impacts, and strategies to avoid conflicts between birds and new transmission lines have been well described by the Edison Electric Institute's Avian Power Line Interaction Committee (APLIC). The APLIC (2006) characterizes potential impacts as follows:

> "Birds are generally electrocuted by transmission lines due to environmental factors such as topography, vegetation, available prey and other, behavioral or biological factors influence avian use of power poles and inadequate separation between energized conductors or energized conductors and grounded hardware can provide two points of contact.
>
> Raptors and other large birds are opportunistic and may use power poles for a number of purposes, such as nest sites, high points from which to defend territories, and perches from which to hunt. Some structures are preferred by birds because they provide considerable elevation above the surrounding terrain, thereby offering a wide field of view. Electrocution can occur when a bird completes an electric circuit by simultaneously touching two energized parts or an energized part and a grounded part of electrical equipment. Most electrocutions occur on medium-voltage distribution lines (4-34.5 kV), in which the spacing between conductors may be small enough to be bridged by birds. Poles with energized hardware, such as transformers, can be especially hazardous, even to small birds, as they contain numerous, closely-spaced energized parts.
>
> "Avian-safe" structures are those that provide adequate clearances to accommodate a large bird between energized and/or grounded parts. Consequently, 60 inches of horizontal separation, which can accommodate the wrist-to-wrist distance of an eagle (which is approximately 54 inches), is used as the standard for raptor protection Likewise, vertical separation of at least 48 inches can accommodate the height of an eagle from its feet to the top of its head (which is approximately 31 inches). Because dry feathers act as insulation, contact must be made between fleshy parts, such as the wrists, feet, or other skin, for electrocution to occur. In spite of the best efforts to minimize avian electrocutions, some degree of mortality may always occur due to influences that cannot be controlled, e.g. weather."

Implementation of APM BIO-8 (Avian Protection), above, would reduce impacts on raptors as a result of electrocution or collision to a less-than-significant level.

Mitigation: None required.

Impact 4.4-8: New subtransmission and transmission line poles/towers could be used as perches by predatory birds, which could result in increased predation on special-status species in the project area. ***Less than significant with mitigation*** **(Class II)**

Avian predators, particularly raptors, are attracted to utility lines poles and towers, because they provide perches with increased visibility of the surrounding area. Adding perches to the project areas could increase the ability of avian predators to exploit the habitat, generating negative effects on prey populations (Hawlena and Bouskila, 2006) such as CV fringe-toed lizard, flat-tailed horned lizard, and Palm Springs pocket mouse. This effect would be particularly significant where new towers and transmission line conductors are introduced or increased in special-status species habitat (e.g., the proposed Farrell-Garnet subtransmission line along the Gene Autry Trail).

There are currently wood poles along most of the Proposed Project subtransmission line alignments, but the Proposed Project would replace several wood poles with larger tubular steel poles (TSPs) and light-weight steel poles (LWS), and also increase the number of subtransmission line poles and transmission line towers/poles in the project area (a net increase of four towers and one TSP would result along the Devers-Coachella Valley 220 kV Loop-In alignment, 21 new poles along the proposed Farrell-Garnet 115 kV subtransmission line alignment (including two new poles at Eisenhower Substation), and 26 new poles along the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment (including new poles at the reconfiguration locations). Subtransmission lines would also be introduced where they don't currently occur, in a 0.8-mile stretch of the proposed Farrell-Garnet alignment line north of the UPRR. This increase in poles, and the replacement of existing poles with larger poles, could result in an increase in predation on special-status species, which would be a significant impact. Implementation of Mitigation Measures 4.4-1 above and 4.4-8, below, would reduce the impacts from potential increases in predation on special-status species that could occur as a result of increased predatory birds in the project area, to a less-than-significant level.

> **Mitigation Measure 4.4-8: Anti-perching device.** Anti-perching devices shall be placed on the new subtransmission line poles and new transmission line towers and poles.

Significance after Mitigation: Less than Significant.

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b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS.

Impact 4.4-9: Construction and operation activities could impact active sand fields along the Farrell-Garnet 115 kV subtransmission line alignment. ***Less than significant with mitigation*** **(Class II)**

"Active sand fields" are a sensitive natural community that are present along portions of the proposed Farrell-Garnet subtransmission line alignment, south of the UPRR and east of Gene Autry Trail. Each new tower installed in the active sand fields would permanently impact approximately 0.06 acre of habitat, and this community would be temporarily impacted as a result of access to the ROW, removal of existing wood poles, and installation of new poles. Impacts would be reduced to less than significant through implementation of APM BIO-2 (Minimize Vegetation Impacts), Mitigation Measure 4.4-1, which requires replacement of impacted habitat along this portion of the Farrell-Garnet alignment, and Mitigation Measure 4.4-2, which requires a vegetation restoration plan for disturbed vegetation along the Gene Autry Trail (although active sand fields are sparsely vegetated). These measures would reduce construction impacts to active sand fields to a less-than-significant level.

The proposed Farrell-Garnet alignment follows existing SCE infrastructure where active sand fields are present, so no new subtransmission line ROW would be introduced into this habitat. The new TSP and LWS power poles would be slightly larger than the existing wood poles along this alignment, but would not significantly alter the movement of wind-blown sand that occurs in its natural state. Therefore, operational impacts would be less than significant.

Mitigation Measure: Implement Mitigation Measures 4.4-1 and 4.4-2.

Significance after Mitigation: Less than Significant.

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c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Construction

Impact 4.4-10: Construction activities could impact jurisdictional waters of the United States and waters of the State, including drainages and seasonal wetlands. ***Less than significant with mitigation*** **(Class II)**

The proposed Farrell-Garnet alignment would cross through Whitewater Wash (also called Whitewater River), which is a wetland as defined by Section 404 of the Clean Water Act. A wetland delineation would be required to verify the extent of USACE jurisdiction, and whether or not Whitewater Wash would be impacted by the Proposed Project. Any direct or indirect impacts

to this feature would require permits from the USACE, RWQCB, and CDFG. These permits are likely to include provisions for avoiding sensitive resources, seasonal restrictions, and restoration of disturbed habitat. Implementation of APM BIO-3 (Avoid Impacts to State and Federal Jurisdiction Wetlands) and Mitigation Measures 4.4-10, below, would reduce impacts to jurisdictional wetlands to a less-than-significant level.

> **Mitigation Measure 4.4-10: Wetlands.** SCE and/or its construction contractors shall perform a wetland delineation and incorporate the results into the final design of subtransmission lines and access roads. The project shall be modified to minimize disturbance of Whitewater Wash, whenever feasible. In the event of any project changes that involve ground disturbance outside of the boundary of the existing wetland delineation, a new wetland delineation shall be performed.
>
> Where jurisdictional wetlands and other waters cannot be avoided, to offset temporary and permanent impacts that occur as a result of the project, mitigation shall be provided through the following mechanisms:
>
> - Purchase or dedication of land to provide wetland preservation, restoration, or creation. If restoration is available and feasible, then a mitigation replacement ratio of at least 2:1 shall be used. If a wetland needs to be created, at least a 3:1 ratio shall be implemented to offset losses. Where practical and feasible, onsite mitigation shall be implemented.
>
> - A wetland mitigation and monitoring plan shall be developed by a qualified biologist or wetland scientist in coordination with CDFG, USFWS, USACE, and/or RWQCB that details mitigation and monitoring obligations for temporary and permanent impacts to wetlands and other waters as a result of construction activities. The plan shall quantify the total acreage lost, describe mitigation ratios for lost habitat, annual success criteria, mitigation sites, monitoring and reporting requirements, and site specific plans to compensate for wetland losses resulting from the project. The mitigation and monitoring plan shall be submitted to the appropriate regulatory agencies for approval. The plan and documentation of such agency approval shall be submitted to the CPUC prior to construction.

Significance after Mitigation: Less than Significant.

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d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Construction

There are no major wildlife movement corridors through the study areas, although Whitewater Wash is occasionally used by wildlife for travel. The project's construction phases would not significantly interfere with the movement of any migratory fish or wildlife species, obstruct established wildlife movement corridors, or impede the use of native wildlife nursery sites (No Impact).

Operations

Impact 4.4-11: Operation of new subtransmission and transmission lines could interfere with movement of migratory birds or wildlife. ***Less than significant*** **(Class III)**

During the operational phase, ground facilities, including power poles/towers, access roads, and substation upgrades would not create a barrier to wildlife movement or interfere with established wildlife corridors or nursery sites. However, the presence of new subtransmission and transmission lines bring the potential to increase electrocution and collision hazards to resident and migratory birds. While there are currently subtransmission and transmission lines in the project area, the Proposed Project would introduce new lines along a 0.8-mile section of the proposed Farrell-Garnet alignment, between the I-10 freeway and the UPRR. Impacts to resident and migratory birds from interactions with power lines, principally by electrocution, are discussed under Impact 4.4-7 above, and would be less than significant with APM BIO-8 (Avian Protection). Therefore, Proposed Project impacts to wildlife movement or on wildlife nursery sites would be minimal and are considered to be less than significant.

Mitigation: None required.

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e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Several city and Riverside County general plans, and BLM's California Desert Conservation Area Plan (including the Amendment for the Coachella Valley) cover portions of the Proposed Project alignments and sites. The CPUC has preemptive jurisdiction over the construction, maintenance, and operation of public utilities in the State of California, and this project is not required to comply with these local policies and ordinances. Nevertheless, the project would not conflict with the policies and objectives that are directed towards minimizing/avoiding impacts to biological resources; therefore, no impact would occur (No Impact).

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f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact 4.4-12: The Proposed Project could conflict with provisions set forth in the Coachella Valley Multi-Species Conservation Plan. ***Less than significant with mitigation*** **(Class II)**

The proposed Farrell-Garnet alignment overlaps with the Whitewater Floodplain Conservation Area, the proposed loop-in alignment falls within the Thousand Palms Conservation Area, and the proposed subtransmission line reconfiguration site at Date Palm Drive and Varner Road is at the southern boundary of the Willow Hole Conservation Area; all of these conservation areas are

part of the CVMSHCP. The Proposed Project would not introduce any subtransmission or transmission lines or substations where they do not already occur, except for the approximately 0.8-mile section of the proposed Farrell-Garnet alignment immediately north of the UPRR, which would be outside of the Whitewater Floodplain Conservation Area.

While this project is not part of the CVMSHCP, the applicable APMs and mitigation measures described in this EIR section (i.e., APM BIO-1 though BIO-8, and Mitigation Measures 4.4-1 through 4.4-10) are at least as strict as the Avoidance, Minimization, and Mitigation Measures described in Section 4.4 of the HCP. Furthermore, these measures would not conflict with the Conservation Objectives for the Whitewater Floodplain Conservation Area and would cover the same special-status species that are covered in the HCP. Impacts would therefore be less than significant with mitigation incorporated.

> **Mitigation Measures:** Implement Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10.

Significance after Mitigation: Less than Significant.

4.4.5 Cumulative Impacts

The geographical context includes urban and open space land uses in the Coachella Valley that support common and sensitive biological resources.

Construction of the Proposed Project could result in both temporary and permanent impacts on special-status species (i.e., CV fringe-toed lizard, burrowing owl, Le Conte's thrasher, ferruginous hawk, loggerhead shrike, Palm Springs pocket mouse, and Palm Springs round-tailed ground squirrel), and their habitats. It is anticipated that ongoing and future development projects as described in Section 3.6, *Cumulative Projects*, would contribute to the incremental loss of undeveloped natural lands that provide habitat for these special-status species. Many development activities in the Coachella Valley would be guided by the recently adopted CVMSHCP. The CVMSHCP aims to guide growth in a way that would not result in cumulatively significant impacts on special-status species, through special-status species minimization measures, conservation planning, and establishing preserves in biologically rich areas. Past, present, and reasonably foreseeable projects, whether they are part of the CVMSHCP or not, are required to comply with federal and State regulations protecting special-status species through implementation of mitigation measures during construction. Activities associated with the construction of the Proposed Project would cause relatively minor loss of undeveloped Sonoran creosote bush scrub, stabilized and partially stabilized desert dunes, and active sand fields in the area; most of these losses would be associated with the footprint of individual transmission towers/poles and access roads that would traverse native habitat. Therefore, implementation of APM BIO-1 through APM BIO-11 and Mitigation Measures 4.4-1 through 4.4-10, which require SCE to conduct surveys and to avoid, minimize, and mitigate for potential impacts to special-

status species and their habitat, would reduce the cumulative contribution of the Proposed Project to less than significant (Class II).

Construction of the Proposed Project could impact active sand fields, a sensitive natural community, and Whitewater Wash, which is a jurisdictional water of the United States. It is anticipated that ongoing and future development projects as described in Section 3.6, *Cumulative Projects*, would contribute to impacts to such features. As with special-status species, past, present and reasonably foreseeable projects are required to comply with federal and State regulations protecting sensitive natural communities and jurisdictional waters.

The proposed Farrell-Garnet subtransmission line would cross through active sand fields and Whitewater Wash; therefore, it is expected that there would be temporary and/or permanent impacts to both of these features. The Proposed Project's impact in combination with other projects could contribute to a cumulatively significant impact on sensitive natural communities and jurisdictional waters of the United States. Implementation of APM BIO-2 (Minimize Vegetation Impacts), and Mitigation Measures 4.4.1 and 4.4.2 would require SCE to minimize impacts to existing vegetation (although Active Sand Fields contain little vegetation cover) and replace lost habitat. Implementation of APM BIO-3 (Avoid Impacts to State and Federal Jurisdiction Wetlands), and Mitigation Measures 4.4-10 would require SCE to avoid jurisdictional waters to the extent possible, to perform a wetland delineation and have it verified by the USACE. Additionally, SCE would be required to avoid, minimize or mitigate potential impacts. As noted above, it is anticipated that impacts from construction of the Proposed Project to sensitive natural communities and jurisdictional waters would be avoided or minimal; therefore, in combination with other projects as described in Section 3.6, *Cumulative Projects*, the Proposed Project would not contribute to a cumulatively significant impact on sensitive natural communities or jurisdictional waters of the United States or waters of the State (Class II).

4.4.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) a new transmission line and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Construction of new infrastructure under the No Project Alternative would likely result in similar impacts to those which would occur from construction of the Proposed Project. Depending on the location of new facilities, construction activities would have the potential to impact special status species that may occur in the study area. Such species include CV milkvetch, the CV fringe-toed lizard, the flat-tailed horned lizard, the Palm Springs round-tailed ground squirrel, burrowing

owls, ferruginous hawk, Le Conte's thrasher, loggerhead shrike, the palm springs pocket mouse, and the Coachella Valley sand-treader cricket. Implementation of applicable APMs and Mitigation Measures identified for the Proposed Project would help reduce potential impacts to special status species; however, depending on the location of facilities impacts would potentially be significant.

If the No Project Alternative would include construction of transmission facilities within active desert dunes and sand fields, impacts may occur. However, it is likely that, as with the Proposed Project, impacts from the No Project Alternative would be mitigable through implementation of APM BIO-2 and Mitigation Measures 4.4-1 and 4.4-2.

If the No Project Alternative would include construction of transmission facilities through Whitewater Wash, it would have the potential to impact jurisdictional waters of the United States. Whitewater Wash is under the jurisdiction of the USACE, RWQCB, and CDFG. However, depending upon the extent of the impact, it is likely that impacts to Whitewater Wash would be reduced to less than significant through implementation of APM BIO-3 (Avoid Impacts to State and Federal Jurisdiction Wetlands), and Mitigation Measures 4.4-10.

Alternative 2

Compared to the Proposed Project, Alternative 2 would have fewer impacts on biological resources both directly and indirectly. Alternative 2 would be placed underground for approximately three miles, which would result in more construction-related ground disturbance through the developed portion of this alignment, but less operational impacts on special-status species compared to the proposed Farrell-Garnet subtransmission line (i.e., less potential for collision or electrocution of raptors, and less potential perching sites for predatory birds that could prey on special-status species). The Alternative 2 and proposed Farrell-Garnet alignments would traverse through potential habitat for the same special-status species, although Alternative 2 would have lower quality habitat for most of these species than the proposed Farrell-Garnet alignment. Specifically, TRC observed both the CV milkvetch and the CV fringe-toed lizard along this alignment in 2009, although in lower densities than along the proposed Farrell-Garnet alignment (SCE and TRC, 2009a, 2009b, and 2009c). Similar to the proposed Farrell-Garnet alignment, the Alternative 2 alignment would also cross through Whitewater Wash, which is a jurisdictional wetland, and would traverse through the Whitewater Floodplain Conservation Area, which is part of the CVMSHCP.

Special-Status Plants and Wildlife

The Alternative 2 alignment has known and potential occurrences for the same special-status species as the proposed Farrell-Garnet alignment. Specifically, there are known occurrences of CV milkvetch and CV fringe-toed lizard, and potential habitat for burrowing owls, Palm Springs pocket mouse, flat-tailed horned lizard, Palm Springs round-tailed ground squirrel, CV giant sand-treader cricket, and Le Conte's thrasher. In addition, loggerhead shrikes were observed

along this alignment, and could nest within or near the Alternative 2 alignment. Construction-related impacts to these species would be considered significant prior to mitigation.

Implementation of APM BIO-1 (Preconstruction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-5 (Biological Monitors), and APM BIO-6 (Worker Environmental Awareness Program) would generally reduce impacts to special-status species along the Alternative 2 alignment.

TRC conducted botanical surveys in 2009, and observed six CV milkvetch individuals along the Alternative 2 alignment. This is significantly less than the 267 individuals observed along the proposed Farrell-Garnet subtransmission line alignment; nevertheless impacts to these individuals would still be significant prior to mitigation. If present, this species could be directly or indirectly affected by the construction associated with Alternative 2. Implementation of APM BIO-9 (Coachella Valley Milkvetch) and Mitigation Measure 4.4-1, as well as the general special-status species mitigation measures listed above, would reduce impacts to this species to a less-than-significant level (Class II).

TRC conducted focused surveys for CV fringe-toed lizard along the Alternative 2 alignment in 2009, and found one individual (SCE and TRC, 2009c). In addition, the Alternative 2 alignment crosses through the Whitewater Floodplain Preserve, where flat-tailed horned lizards were observed (CVAG, 2007). Impacts to these species during the construction activities associated with Alternative 2, such as injury or mortality, would be significant. The implementation of Mitigation Measure 4.4-2, as well as the general special-status species mitigation measures listed above, would reduce impacts to the CV fringe-toed lizard as well as the flat-tailed horned lizard, to a less-than-significant level (Class II).

There is a 2007 CNDDB record for a burrowing owl burrow approximately 0.3 mile east of the Alternative 2 alignment (CDFG, 2009), and others could occur in the area. Construction associated with Alternative 2 could result in direct mortality of this species, temporary habitat loss, or stress from construction noise or activity that leads to nest failure. The implementation of Mitigation Measure 4.4-6, in addition to the general special-status species mitigation measures listed above, would reduce impacts on burrowing owls to less than significant (Class II).

Several special-status birds have been observed near the Alternative 2 alignment, including ferruginous hawk, prairie falcon, and loggerhead shrike. These or other native bird species that are protected under the federal Migratory Bird Treaty Act and/or California Fish and Game Code Section 3503 and 3503.5, could be directly or indirectly impacted through activities such as grading and preparation of work areas, operation of heavy equipment, installation and removal of poles, and conductor installation. These impacts would be reduced to less than significant through implementation of APM BIO-7 (Avoid Impacts to Active Nests), as well as Mitigation Measure 4.4-5 (Class II).

Similar to the Proposed Project, operation of the new subtransmission lines that would be associated with Alternative 2 could potentially result in raptor electrocution or collision. The implementation

of APM BIO-8, (Avian Protection), which requires compliance with avian protection standards on powerlines, would ensure that impacts would be less than significant (Class III).

Similar to the Proposed Project, subtransmission line poles along Alternative 2 could result in an increase in perching structures for predatory birds, which could consequently result in increased predation on special-status species in the area, particularly where poles are placed in undeveloped areas. However, approximately three miles of the line would be placed underground for Alternative 2, so there would be less overall perching structures for predatory birds in the area. With less perching structures, there would be less potential for adverse affects on special-status wildlife (such as the CV fringe-toed lizard) during the operational phase of the alternative compared to the Proposed Project. Nevertheless, any increased predation on special-status species as a result of the alternative would be significant. Implementation of Mitigation Measure 4.4-8, (Anti-perching device) would reduce this potential impact on special-status species to a less-than-significant level (Class II).

Sensitive Natural Communities

Alternative 2 would not be expected to impact any sensitive natural communities, unlike the proposed Farrell-Garnet line, which would impact active desert dunes and sand fields habitat. Therefore this alternative would result in no impact (No Impact).

Wetlands

The Alternative 2 alignment would cross through Whitewater Wash, similar to the Proposed Project, although Alternative 2 would cross through a greater extent of Whitewater Wash than the proposed Farrell-Garnet alignment. Whitewater Wash is under the jurisdiction of the USACE, RWQCB, and CDFG. Impacts to Whitewater Wash would be reduced to less than significant through implementation of APM BIO-3 (Avoid Impacts to State and Federal Jurisdiction Wetlands), and Mitigation Measures 4.4-10 (Class II).

Wildlife Corridor and Nursery Sites

Construction activities under Alternative 2 would not adversely affect wildlife corridors or nursery sites. During the operational phase, ground facilities, including power poles and access roads, would not create a barrier to wildlife movement or interfere with established wildlife corridors or nursery sites. The presence of new transmission lines brings the potential to increase electrocution and collision hazards to resident and migratory birds, but these impacts would be less than significant with implementation of APM BIO-8 (Avian Protection). Therefore, impacts to wildlife movement or wildlife nursery sites would be expected to be less than significant under Alternative 2 (Class III).

Local Policies and Ordinances

Alternative 2, like the Proposed Project, would not conflict with any local policies and ordinances (No Impact).

HCPs

The Alternative 2 alignment, like the proposed Farrell-Garnet alignment, would traverse through a portion of the CVMSHCP's Whitewater Floodplain Conservation Area. The CVMSHCP considers the area that the Alternative 2 alignment traverses to be Core Habitat for the CV fringe-toed lizard, Palm Springs pocket mouse, Palm Springs round-tailed ground squirrel, CV milkvetch, CV giant sand-treader cricket, and Le Conte's thrasher. The APMs and mitigation measures described in this EIR section (i.e., APM BIO-1 through BIO-11, and Mitigation Measures 4.4-1 though 4.4-10) are at least as strict as the Avoidance, Minimization, and Mitigation Measures described in Section 4.4 of the HCP, do not conflict with the Conservation Objectives for the Whitewater Floodplain Conservation Area, and cover the same special-status species that are covered in the HCP. Thus, conflicts would be less than significant with mitigation (Class II).

Alternative 3

Alternative 3 would have less overall impacts on biological resources than the proposed Farrell-Garnet subtransmission line. Alternative 3 would be longer in length than the proposed Farrell-Garnet subtransmission line and would include an underground component; therefore, this alternative would result in greater ground disturbance. However, much of the alignment goes through an urban area that lacks suitable habitat for most special-status species, and the undeveloped portion of the alignment crosses through lower quality habitat for most special-status species; therefore, this alternative would result in fewer potential impacts on special-status plants and wildlife. Like the proposed Farrell-Garnet alignment, Alternative 3 would also impact Whitewater Wash, which is a jurisdictional feature, and this alternative is within the CVMSHCP's Whitewater Floodplain Conservation Area. These potentially significant biological impacts are discussed below.

Special-Status Plants and Wildlife

The first portion of the Alternative 3 alignment would be placed underground through an urban area, which is generally unsuitable habitat for special-status species. Alternative 3 would then turn west on San Rafael Road, where it would transition to an above-ground line, and head north on Indian Canyon Drive to Garnet Substation. This section of the alignment would primarily traverse undeveloped and unpopulated desert land along an existing SCE ROW, which has potential for the same special-status species to occur as the proposed Farrell-Garnet alignment (i.e., CV fringe-toed lizard, Palm Springs pocket mouse, flat-tailed horned lizard, Palm Springs round-tailed ground squirrel, CV giant sand-treader cricket, burrowing owl, prairie falcon, loggerhead shrike, and Le Conte's thrasher). Construction-related impacts to these species would be considered significant prior to mitigation. Implementation of APM BIO-1 (Preconstruction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-5 (Biological Monitors), and APM BIO-6 (Worker Environmental Awareness Program) would generally reduce impacts to special-status species along Alternative 3.

TRC conducted focused rare plant surveys for CV milkvetch in 2009, but did not observe this species along the Alternative 3 alignment. However, there are several 2005 and 2006 CNDDB records for this species along the Alternative 3 alignment (CDFG, 2009), and there is suitable habitat for this species in the undeveloped portions of this alignment. If present, this species could be directly or indirectly affected by the construction, operation, and maintenance associated with the alternative. Implementation of APM BIO-9 (Coachella Valley Milkvetch) and Mitigation Measure 4.4-1, as well as the general special-status species mitigation measures listed above, would reduce impacts to CV milkvetch to a less-than-significant level (Class II).

TRC conducted a habitat assessment for CV fringe-toed lizard along Alternative 3 in 2009, and did not observe this species. Nevertheless, there are 1975 CNDDB records of this species along this alignment (CDFG, 2009), and recent records for this species along Alternative 2, one mile to the east (SCE and TRC, 2009c); suitable habitat is present for this species along Alternative 3. If present, CV fringe-toed lizard could be directly or indirectly affected by the construction, operation, and maintenance associated with the alternative. Implementation of Mitigation Measure 4.4-2, as well as the general special-status species mitigation measures listed above, would reduce impacts to this species as well as the flat-tailed horned lizard, to a less than significant level (Class II).

There is a 2007 CNDDB record for a burrowing owl approximately 1.3 miles east of the Alternative 3 alignment (CDFG, 2009), and others could occur in the area. Construction associated with Alternative 3 could result in direct mortality of this species, temporary habitat loss, or stress from construction noise or activity that leads to nest failure. The implementation of Mitigation Measure 4.4-6, in addition to the general special-status species mitigation measures listed above would reduce impacts on burrowing owls to a less-than-significant level (Class II).

No nesting special-status birds were observed along the Alternative 3 alignment, but several special-status birds occur nearby, including ferruginous hawk, prairie falcon, and loggerhead shrike. These or other native bird species that are protected under the federal Migratory Bird Treaty Act and/or California Fish and Game Code Section 3503 and 3503.5, could be directly or indirectly impacted through construction activities associated with Alternative 3 such as grading and preparation of work areas, operation of heavy equipment, installation and removal of poles, and conductor installation. These impacts would be reduced to less than significant through implementation of APM BIO-7 (Avoid Impacts to Active Nests), as well as Mitigation Measure 4.4-5 (Class II).

Similar to the Proposed Project, the new transmission lines associated with Alternative 3 could potentially result in raptor electrocution or collision during operations. However, Alternative 3 would have less potential operational impacts on raptors, because only three miles of Alternative 3 would be above-ground, while 5.8 miles of the proposed Farrell-Garnet line would be above-ground. Implementation of APM BIO-8 (Avian Protection), which requires compliance with avian protection standards on powerlines, would reduce this potential impact to less than significant (Class II).

Similar to the Proposed Project, transmission line poles along the Alternative 3 alignment could result in an increase in perching structures for predatory birds, which could consequently result in increased predation on special-status species in the area, particularly where poles are placed in undeveloped areas (i.e., along Indian Canyon Drive). However, Alternative 3 would provide less potential perches than the proposed Farrell-Garnet line, because only three miles of Alternative 3 would be above-ground, while 5.8 miles of the proposed Farrell-Garnet line would be above-ground. With less perching structures, there would be less potential for adverse affects on special-status wildlife (such as the CV fringe-toed lizard) during the operation phase of the alternative, compared with the Proposed Project. Nevertheless, any increased predation on special-status species as a result of Alternative 3 would be significant. Implementation of Mitigation Measure 4.4-8 (Anti-perching device) would reduce this potential impact on special-status species to a less-than-significant level (Class II).

Sensitive Natural Communities

Alternative 3 is not expected to impact any sensitive natural communities, unlike the proposed Farrell-Garnet line, which would impact active desert dunes and sand field habitat. Therefore this alternative would result in no impact (No Impact).

Wetlands

Alternative 3 would cross through a greater extent of Whitewater Wash than the proposed Farrell-Garnet subtransmission line. The Whitewater Wash is under the jurisdiction of the USACE, RWQCB, and CDFG. Impacts to Whitewater Wash would be reduce to less than significant, through implementation of APM BIO-3 (Avoid Impacts to State and Federal Jurisdiction Wetlands), and Mitigation Measures 4.4-10 (Class II).

Wildlife Corridor and Nursery Sites

Construction activities for Alternative 3 would not adversely affect wildlife corridors or nursery sites. During the operational phase, ground facilities, including power poles and access roads, would not create a barrier to wildlife movement or interfere with established wildlife corridors or nursery sites. The presence of new subtransmission lines would bring the potential to increase electrocution and collision hazards to resident and migratory birds, but these impacts would be reduced through implementation of APM BIO-8 (Avian Protection). Therefore, no impacts to wildlife movement or wildlife nursery sites are expected as a result of Alternative 3 (No Impact).

Local Policies and Ordinances

Alternative 3, like the Proposed Project, would not conflict with any local policies and ordinances (No Impact).

HCPs

Alternative 3, like the proposed Farrell-Garnet alignment, would traverse through a portion of the CVMSHCP's Whitewater Floodplain Conservation Area. The CVMSHCP considers the area that the Alternative 3 alignment traverses to be Core Habitat for the CV fringe-toed lizard, Palm Springs

pocket mouse, Palm Springs round-tailed ground squirrel, CV milkvetch, CV sand-treader cricket, and Le Conte's thrasher. The mitigation measures described in this EIR section (i.e., APM BIO-1 through BIO-11, and Mitigation Measures 4.4-1 through 4.4-10) are at least as strict as the Avoidance, Minimization, and Mitigation Measures described in Section 4.4 of the HCP, do not conflict with the Conservation Objectives for the Whitewater Floodplain Conservation Area, and cover the same special-status species that are covered in the HCP. Thus, conflicts would be less than significant with mitigation (Class II).

Alternative 5

Compared to the proposed Mirage-Santa Rosa subtransmission line, construction and operations of Alternative 5 would have fewer impacts on biological resources both directly and indirectly through habitat modification. Alternative 5 would be approximately 3.1 miles long, which would be approximately twice the length of the proposed Mirage-Santa Rosa line; therefore, a greater area would be impacted by construction activities. Furthermore, Alternative 5 would be predominantly underground, and thus would result in greater ground disturbance compared to the proposed Mirage-Santa Rosa 115 kV subtransmission line during construction activities. However, with almost no overhead lines there would be fewer impacts on special-status species during the operational phase of the alternative, because there would be less potential for raptor collision or electrocution from overhead lines, and less potential perching sites for predatory birds that could prey on special-status species. Most of this alignment is through paved streets bordered by ornamental trees in an urban environment, which provides poor quality habitat for most special-status species. However, there is a 2005 CNDDB record of CV milkvetch at the intersection of Monterey Avenue and Varner Road (CDFG, 2009).

Special-Status Plants and Wildlife

Compared with the proposed Mirage-Santa Rosa alignment, there would be fewer impacts on special-status species along the Alternative 5 alignment. Most of Alternative 5 would go through paved streets bordered by ornamental tree plantings, which is unsuitable habitat for most special-status species. The potential for special-status species along the Alternative 5 alignment is lower than it is along the proposed Mirage-Santa Rosa alignment, because the Mirage-Santa Rosa alignment is closer to undeveloped habitat and CV fringe-toed lizard critical habitat than the Alternative 5 alignment.

Implementation of APM BIO-1 (Preconstruction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-5 (Biological Monitors), and APM BIO-6 (Worker Environmental Awareness Program) would generally reduce impacts to special-status species along the Alternative 5 alignment.

There is a 2005 CNDDB record for CV milkvetch at the intersection of Monterey Avenue and Varner Road (CDFG, 2009). Alternative 5 would be predominantly confined to roads, and therefore, there is only a low potential for the CV milkvetch to be impacted by this alternative.

Nevertheless, any impacts to this species during the alternative's construction, operation, or maintenance would be significant; impacts would be reduced to a less than significant level through implementation of APM BIO-9 (Coachella Valley Milkvetch) and Mitigation Measure 4.4-1, as well as the general special-status species mitigation measures listed above (Class II).

There is a low likelihood that CV fringe-toed lizard is present in the vicinity of the Alternative 5 alignment, because this alternative is predominantly confined to roads, and is located in an urban environment. Nevertheless, there are historic records for this species along the Alternative 5 alignment (CDFG, 2009), and it is close enough to suitable habitat for this species (there are several recent records for the CV fringe-toed lizard within five miles of this alternative on the north, east, and south sides), that potential impacts on the CV fringe-toed lizard cannot be ruled out. However, implementation of Mitigation Measure 4.4-2, as well as the general special-status species mitigation measures listed above, would reduce impacts to this species as well as the flat-tailed horned lizard, to a less-than-significant level (Class II).

There is a 2007 CNDDB record for a burrowing owl approximately two miles east of the Alternative 5 alignment, and a 2006 record approximately two miles west (CDFG, 2009). While the Alternative 5 alignment does not provide suitable habitat for burrowing owls, this species could be close enough to the alternative to be adversely affected. Construction associated with Alternative 5 could result in direct mortality of this species, temporary habitat loss, or stress from construction noise or activity that leads to nest failure. The implementation of Mitigation Measure 4.4-6, in addition to the general special-status species mitigation measures listed above would reduce impacts on burrowing owls to a less-than-significant level (Class II).

Similar to the proposed Mirage-Santa Rosa alignment, Alternative 5 could impact special-status bird species such as loggerhead shrike, and ferruginous hawk, or other native bird species that are protected under the federal Migratory Bird Treaty Act and/or California Fish and Game Code Section 3503 and 3503.5. Construction activities associated with Alternative 5, such as grading and preparation of work areas, operation of heavy equipment, installation conduit and cables, could result in indirect impacts on existing populations of, and habitat for, these protected birds. These impacts would be reduced to less than significant through implementation of Mitigation Measure APM BIO-7 (Avoid Impacts to Active Nests), as well as Mitigation Measure 4.4-5 (Class II).

Unlike the Proposed Project, which would result in the construct of the Mirage-Santa Rosa subtranmission line above-ground, potential impacts of overhead transmission lines resulting in bird electrocution or collision would be less than significant, because most of Alternative 5 would be installed underground. Similarly, potential impacts of predatory birds perching on transmission lines and preying on special-status species would be less than significant (Class III).

Sensitive Natural Communities

Alternative 5, like the proposed Mirage-Santa Rosa 115 kV subtransmission line, would not impact any sensitive natural communities (No Impact).

Wetlands

Alternative 5, like the proposed Mirage-Santa Rosa 115 kV subtransmission line, would not impact any wetlands (No Impact).

Wildlife Corridor and Nursery Sites

Similar to the Proposed Project, construction and operation activities for Alternative 5 would not adversely affect wildlife corridors or nursery sites.

During the operational phase, Alternative 5 would not create a barrier to wildlife movement or interfere with established wildlife corridors or nursery sites. The majority of the Alternative 5 would be underground; however, there would be overhead subtransmission lines in the vicinity of I-10, which would bring the potential to increase electrocution and collision hazards to resident and migratory birds, but these impacts would be reduced through implementation of APM BIO-8 (Avian Protection). Therefore, impacts to wildlife movement or wildlife nursery sites would be less than significant under Alternative 5 (Class III).

Local Policies and Ordinances

Alternative 5, like the proposed Mirage-Santa Rosa subtransmission line, would not conflict with any local policies and ordinances (No Impact).

HCPs

Alternative 5, like the proposed Mirage-Santa Rosa subtransmission line, would not be within any CVMSHCP Conservation Area, and in general would provide poor quality habitat for the species covered by this HCP. Alternative 5 would not conflict with the CVMSHCP or any other HCP (No Impact).

Alternative 6

Compared to the proposed Farrell-Garnet subtransmission line, Alternative 6 would have substantially less impacts on biological resources. The Alternative 6 alignment would be approximately 4.2 miles, which would be shorter than the proposed 5.8-mile Farrell-Garnet line; thus, this alternative would result in less ground disturbance. Alternative 6 would follow existing subtransmission lines except for a one mile segment along Vista Chino, which would be installed underground through an urban area. The same special-status species that could be present along the proposed Farrell-Garnet 115 kV subtransmission line could be present along the Alternative 6 alignment, although there is less suitable habitat for special-status species compared to along the proposed Farrell-Garnet alignment (SCE and TRC, 2009a, 2009b, and 2009c). Construction of both Alternative 6 and the proposed Farrell-Garnet subtransmission line could impact Whitewater Wash, which is a wetland as defined by the Clean Water Act.

Special-Status Plants and Wildlife

Construction activities within the Alternative 6 alignment would have the potential to impact the same special-status species as within the proposed Farrell-Garnet alignment. Specifically, where the Alternative 6 alignment crosses Whitewater Wash for 0.5 mile and for the 900-foot-long section south of I-10, there is potential habitat for the Palm Springs pocket mouse, flat-tailed horned lizard, Palm Springs round-tailed ground squirrel, CV giant sand-treader cricket, burrowing owl, prairie falcon, loggerhead shrike, and Le Conte's thrasher. Construction-related project impacts to these species would be considered significant prior to mitigation. Implementation of APM BIO-1 (Preconstruction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-5 (Biological Monitors), and APM BIO-6 (Worker Environmental Awareness Program) would generally reduce impacts to special-status species along the Alternative 6 alignment.

Similar to the proposed Farrell-Garnet alignment, construction along the Alternative 6 alignment would have the potential to impact the CV milkvetch. TRC biologists observed this species in Whitewater Wash on either side of Vista Chino, and TRC's habitat assessment for this alternative identified the entire alignment to have a high potential for this species, except where it traverses through urban areas (e.g., along Vista Chino after the first 0.5-mile section of the alignment) (SCE and TRC, 2009b). This species could be adversely affected through the alternative's construction activities. Implementation of APM BIO-9 (Coachella Valley Milkvetch) and Mitigation Measure 4.4-1, as well as the general special-status species mitigation measures listed above, would reduce impacts to CV milkvetch to a less-than-significant level (Class II).

Similar to the proposed Farrell-Garnet alignment, construction along the Alternative 6 alignment would have the potential to impact the CV fringe-toed lizard and flat-tailed horned lizard. TRC conducted a habitat assessment for CV fringe-toed lizard along the Alternative 6 alignment in 2009. They did not observe this species, but identified the 0.5-mile section of Sonoran creosote bush scrub immediately east of the Farrell Substation (in Whitewater Wash) as having a moderate potential for this species, and the 900-foot stretch that traverses stabilized and partially stabilized sand dune habitat just south of I-10 as high quality habitat for this species (SCE and TRC, 2009b). There are several historic records for this species along this alignment (CDFG, 2009), and recent records for this species along the proposed Farrell-Garnet alignment, less than two miles northwest (SCE and TRC, 2009c). In addition, there is also a 1972 record for the flat-tailed horned lizard along the Alternative 6 alignment, east of Whitewater Wash and along a two-mile stretch of Vista Chino (CDFG, 2009), although there is a low potential that this species still occurs here because this area is currently developed and lacks suitable habitat. Direct or indirect impacts to these lizard species during construction activities would be significant prior to mitigation. The implementation of Mitigation Measure 4.4-2, as well as the general special-status species mitigation measures listed above, would reduce impacts to the CV fringe-toed lizard as well as the flat-tailed horned lizard, to a less-than-significant level (Class II).

Construction in both the Alternative 6 and the proposed Farrell-Garnet alignments would have the potential to impact burrowing owls in the undeveloped habitat along the alignments (CDFG, 2009). Construction associated with Alternative 6 could result in direct mortality of this species, temporary habitat loss, or stress from construction noise or activity that leads to nest failure. The

implementation of Mitigation Measure 4.4-6, in addition to the general special-status species mitigation measures listed above would reduce impacts on burrowing owls to a less-than-significant level (Class II).

Similar to the proposed Farrell-Garnet alignment, there is the potential for special-status birds or native birds protected by the federal Migratory Bird Treaty Act and/or California Fish and Game Code Section 3503 and 3503.5 to nest along or near the Alternative 6 alignment. Construction activities associated with Alternative 6, such as grading and preparation of work areas, operation of heavy equipment, installation and removal of poles, and conductor installation, could result in direct or indirect impacts on existing populations of, and habitat for, these protected birds. These impacts would be reduced to less than significant through implementation of Mitigation Measure APM BIO-7 (Avoid Impacts to Active Nests), as well as Mitigation Measure 4.4-5 (Class II).

Similar to the Proposed Project, the new overhead transmission lines that would be associated with Alternative 6 could potentially result in raptor electrocution or collision during operations. Approximately 3.2 miles of the Alternative 6 subtransmission line would be above-ground, although no new above-ground powerlines would be introduced into areas where they don't already occur. Implementation of APM BIO-8 (Avian Protection), which requires compliance with avian protection standards on powerlines, would reduce this potential impact to less than significant (Class II).

Similar to the Proposed Project, transmission line poles along approximately 3.2 miles of the Alternative 6 alignment could potentially increase perching structures for predatory birds, which could consequently result in increased predation on special-status species in the area, particularly where poles are placed in undeveloped habitat. Implementation of Mitigation Measure 4.4-8 (Anti-perching device) would reduce this potentially significant impact on special-status species to a less than significant level (Class II).

Sensitive Natural Communities

No sensitive natural communities are present along the Alternative 6 alignment; there would be no impact (No Impact).

Wetlands

The first 0.5 mile of the Alternative 6 alignment would cross Whitewater Wash, which is a wetland as defined by the Clean Water Act. Similar to the proposed Farrell-Garnet 115 kV subtransmission line, construction activities associated with Alternative 6 would have temporary or permanent impacts on this feature. This significant impact would be reduced to less than significant through implementation of APM BIO-3 (Avoid Impacts to State and Federal Jurisdiction Wetlands), and Mitigation Measures 4.4-10 (Class II).

Wildlife Corridor and Nursery Sites

Construction activities for Alternative 6 would not adversely affect wildlife corridors or nursery sites. During the operational phase, ground facilities, including power poles and access roads,

would not create a barrier to wildlife movement or interfere with established wildlife corridors or nursery sites. The presence of new transmission lines brings the potential to increase electrocution and collision hazards to resident and migratory birds, but these impacts would be reduced through implementation of APM BIO-8 (Avian Protection). Therefore, impacts to wildlife movement or wildlife nursery sites would be less than significant under Alternative 6 (No Impact).

Local Policies and Ordinances

Alternative 6, like the proposed Farrell-Garnet 115 kV subtransmission line, would not conflict with any local policies and ordinances (No Impact).

HCPs

The Alternative 6 alignment would end at the southern edge of the CVMSHCP's Willow Hole Conservation Area, near Varner Road and Date Palm Road. This corner of the Willow Hole Conservation Area is considered Core Habitat for the CV milkvetch, Palm Springs pocket mouse, Palm Springs round-tailed ground squirrel, CV fringe-toed lizard, and Le Conte's thrasher (CVAG, 2007). The APMs and mitigation measures described in this EIR section (i.e., APM BIO-1 through BIO-11, and Mitigation Measures 4.4-1 through 4.4-10) are at least as strict as the Avoidance, Minimization, and Mitigation Measures described in Section 4.4 of the HCP, do not conflict with the Conservation Objectives for the Whitewater Floodplain Conservation Area, and cover the same special-status species that are covered in the HCP. Thus, conflicts would be less than significant with mitigation (Class II).

Alternative 7

Compared to the proposed Farrell-Garnet 115 kV subtransmission line, Alternative 7 would have substantially less impacts on biological resources. This alternative is similar to Alternative 6, except that instead of going underground for one mile along Vista Chino, it would head south continuing overhead on Landau Boulevard, east on 33rd Street, and north on Date Palm Avenue. Alternative 7 would be approximately 9.3 miles and would be entirely above-ground, following pre-existing power lines. Alternative 7 has the potential to impact the same species as those that are present in the proposed Farrell-Garnet subtransmission line alignment, although there is less suitable habitat for special-status species along this alternative alignment. Both Alternative 7 and the proposed Farrell-Garnet line could have temporary or permanent impacts on Whitewater Wash, a jurisdictional wetland, during construction activities.

Special-Status Plants and Wildlife

Construction within the Alternative 7 alignment would have the potential for the same special-status species as along the proposed Farrell-Garnet alignment. Specifically, there are known occurrences of CV milk-vetch along the alignment (CDFG, 2009), historic occurrences for the CV fringe-toed lizard (CDFG, 2009), and potential for the Palm Springs pocket mouse, flat-tailed horned lizard, Palm Springs round-tailed ground squirrel, CV giant sand-treader cricket,

burrowing owl, prairie falcon, loggerhead shrike, and Le Conte's thrasher. Construction-related project impacts to these species would be considered significant prior to mitigation. Implementation of APM BIO-1 (Preconstruction Surveys), APM BIO-2 (Minimize Vegetation Impacts), APM BIO-5 (Biological Monitors), and APM BIO-6 (Worker Environmental Awareness Program) would generally reduce impacts to special-status species along the Alternative 7 alignment.

Similar to the proposed Farrell-Garnet subtransmission line, Alternative 7 would have the potential to impact the CV milkvetch. This species was observed in Whitewater Wash on both sides of Vista Chino along the 0.5-mile section of the Alternative 7 alignment east of the Farrell Substation, and TRC's habitat assessment for this alternative identified the entire alignment to have a high potential for this species, except where it traverses through urban areas (e.g., along Vista Chino after the first 0.5-mile section) (SCE and TRC, 2009b). Implementation of APM BIO-9 (Coachella Valley Milkvetch) and Mitigation Measure 4.4-1, as well as the general special-status species mitigation measures listed above, would reduce impacts to CV milkvetch to a less-than-significant level (Class II).

Similar to the proposed Farrell-Garnet subtransmission line, Alternative 7 would have the potential to impact the CV fringe-toed lizard and flat-tailed horned lizard, although a greater expanse of suitable habitat is present along the proposed Farrell-Garnet alignment than along the Alternative 7 alignment. TRC conducted a habitat assessment for CV fringe-toed lizard along the Alternative 7 alignment in 2009. They did not observe this species, but identified the 0.5-mile section of Sonoran creosote bush scrub immediately east of the Farrell Substation as having a moderate potential for this species, and the 900-foot stretch that traverses stabilized and partially stabilized sand dune habitat just south of I-10 as high quality habitat for this species (SCE and TRC, 2009b). There are several historic records for this species along this alignment (CDFG, 2009), and recent records for this species along the proposed Farrell-Garnet line alignment, less than two miles northwest (SCE and TRC, 2009c). There is also a 1972 record for the flat-tailed horned lizard along the Alternative 7 alignment, east of Whitewater Wash and along a two-mile stretch of Vista Chino (CDFG, 2009), although there is a low potential that this species still occurs here because this area is currently developed and lacks suitable habitat. Direct and indirect impacts of these two lizard species as a result of construction activities would be significant. The implementation of Mitigation Measure 4.4-2, as well as the general special-status species mitigation measures listed above, would reduce impacts to the CV fringe-toed lizard as well as the flat-tailed horned lizard, to a less-than-significant level (Class II).

Construction of both Alternative 7 and the proposed Farrell-Garnet subtransmission line would have the potential to impact burrowing owls. There is potential for this species to occur in undeveloped habitat along this alternative alignment (CDFG, 2009), and construction associated with Alternative 7 could result in direct mortality of this species, temporary habitat loss, or stress from construction noise or activity that leads to nest failure. The implementation of Mitigation Measure 4.4-6, in addition to the general special-status species mitigation measures listed above, would reduce impacts on burrowing owls to less than significant (Class II).

Similar to the proposed Farrell-Garnet alignment, there is the potential for special-status birds or native birds protected by the federal Migratory Bird Treaty Act and/or California Fish and Game Code Section 3503 and 3503.5 to nest along or near the Alternative 7 alignment. Construction activities associated with Alternative 7, such as grading and preparation of work areas, operation of heavy equipment, installation and removal of poles, and conductor installation, could result in direct or indirect impacts on existing populations of, and habitat for, these protected birds. These impacts would be reduced to less than significant through implementation of APM BIO-7 (Avoid Impacts to Active Nests), as well as Mitigation Measure 4.4-5 (Class II).

Similar to the proposed Farrell-Garnet line, the new transmission lines associated with Alternative 7 would potentially result in raptor electrocution or collision during operations. All 9.3 miles of the Alternative 7 subtransmission line would be above-ground, although no new above-ground lines would be introduced into areas where they do not already occur. Implementation of APM BIO-8 (Avian Protection), which requires compliance with avian protection standards on power lines, would reduce this potential impact to less than significant (Class II).

Similar to the proposed Farrell-Garnet line, transmission line poles along 9.3 miles of the Alternative 7 alignment could potentially increase perching structures for predatory birds, which could consequently result in increased predation on special-status species in the area, particularly where poles are placed in undeveloped areas (i.e., in the Sonoran creosote bush scrub immediately east of the Farrell Substation, in the stabilized and partially stabilized sand dunes immediately south of I-10, and in the Sonoran creosote bush scrub north of I-10). Implementation of Mitigation Measure 4.4-8 (Anti-perching device) would reduce this potentially significant impact on special-status species to a less-than-significant level (Class II).

Sensitive Communities

No sensitive natural communities are present along the Alternative 7 alignment, so there would be no impact (No Impact).

Wetlands

The first 0.5 mile of the Alternative 7 alignment crosses Whitewater Wash, which is a wetland as defined by the Clean Water Act. Similar to the proposed Farrell-Garnet 115 subtransmission line, construction activities associated with Alternative 7 would have temporary or permanent impacts on this feature. This significant impact would be reduced to less than significant through implementation of APM BIO-3 (Avoid Impacts to State and Federal Jurisdiction Wetlands), and Mitigation Measures 4.4-10 (Class II).

Wildlife Corridor and Nursery Sites

Construction activities under Alternative 7 would not adversely affect wildlife corridors or nursery sites. During the operational phase, ground facilities, including poles and access roads, would not create a barrier to wildlife movement or interfere with established wildlife corridors or nursery sites. The presence of new subtransmission lines brings the potential to increase electrocution and collision hazards to resident and migratory birds, but these impacts would be reduced through

implementation of APM BIO-8 (Avian Protection). Therefore, impacts to wildlife movement or wildlife nursery sites would be expected to be less than significant under Alternative 7 (Class III).

Local Policies and Ordinances

Alternative 7, like the proposed Farrell-Garnet 115 subtransmission line, would not conflict with any local policies and ordinances (No Impact).

HCPs

The Alternative 7 alignment would end at the southern edge of the CVMSHCP's Willow Hole Conservation Area, near Varner Road and Date Palm Road. This corner of the Willow Hole Conservation Area is considered Core Habitat for the CV milkvetch, Palm Springs pocket mouse, Palm Springs round-tailed ground squirrel, CV fringe-toed lizard, and Le Conte's thrasher (CVAG, 2007). The mitigation measures described in this EIR section (i.e., APM BIO-1 through BIO-11, and Mitigation Measures 4.4-1 – 4.4-10) are at least as strict as the Avoidance, Minimization, and Mitigation Measures described in Section 4.4 of the HCP, do not conflict with the Conservation Objectives for the Whitewater Floodplain Conservation Area, and cover the same special-status species that are covered in the HCP. Thus, conflicts would be less than significant with mitigation (Class II).

References – Biological Resources

Avian Power Line Interaction Committee (APLIC), 2006. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006, Edison Electric Institute and the Raptor Research Foundation, Washington, D.C., 2006.

Barrows, C.W., M.F. Allen and J.T. Rotenberry, 2006. Boundary processes between a desert sand dune community and an encroaching suburban landscape. *Biological Conservation* 131: 486 – 494, 2006.

Bureau of Land Management (BLM), 1994. *California Desert Conservation Area Plan*, U.S. Department of the Interior, pp.159,1980, as amended 1994.

BLM, 2002. *California Desert Conservation Area Plan Amendment for the Coachella Valley*, U.S. Department of the Interior, 2002.

California Burrowing Owl Consortium, 1995. *Burrowing Owl Survey Protocol and Mitigation Guidelines*, 1995.

California Department of Fish and Game (CDFG), 2009. California Natural Diversity Database (CNDDB) commercial version 3.1, data request for Desert Hot Springs, Palm Springs, Seven Palms Valley, Cathedral City, East Deception Canyon, and Myoma USGS 7.5-minute quadrangles, September 2009.

California Native Plant Society (CNPS), 2009. Inventory of Rare and Endangered Plants, online computer program, data request for Desert Hot Springs, Palm Springs, Seven Palms Valley,

Cathedral City, East Deception Canyon, and Myoma USGS 7.5-minute quadrangles. Available at http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi. Accessed September 2009.

City of Cathedral City, 2002. *City of Cathedral City General Plan*, adopted July 31, 2002.

City of Indian Wells, 1996. *City of Indian Wells General Plan*, adopted February 1, 1996.

City of Palm Desert, 2004. *City of Palm Desert General Plan*, adopted March 15, 2004.

City of Palm Springs, 2007. *City of Palm Springs General Plan - Recreation, Open Space & Conservation Element*, adopted October, 2007.

City of Rancho Mirage, 1997. *City of Rancho Mirage General Plan*, adopted January 1997.

CVAG (Coachella Valley Association of Governments), 2007. *Coachella Valley Multiple Species Habitat Conservation Plan.* Internet site: http://www.cvmshcp.org/, 2007, accessed 2009 Sep 25.

EPG, 2006a. *Survey Results for Coachella Valley Milkvetch (Astragalus lentiginosus var. coachellae) on the Southern California Edison Devers-Mirage System Split 115kV Transmission Line*, 2006.

EPG, 2006b. *Survey Results for Coachella Valley Fringe-Toed Lizards (Uma Inornata) on the Southern California Edison Devers-Mirage System Split 115kV Transmission Line*, 2006.

EPG, 2006c. *Survey Results for Mojave Population Desert Tortoise (Gopherus Agassizii) on the Southern California Edison Devers-Mirage System Split 115kV Transmission Line*, 2006.

Griffiths, P.G., R.H. Webb, N. Lancaster, C,A. Kaehler and S.C. Lundstrom, 2002. Long-term sand supply to Coachella Valley fringe-toed lizard habitat in the northern Coachella Valley, California, U. S. Geological Survey, *Water-Resources Investigations Report* 02-4013, Tucson, 2002.

Hawlena, Dror and Amos Bouskila, 2006. Land management practices for combating desertification cause species replacement of desert lizards. *Journal of Applied Ecology* 43, 2006.

Holland, R.F., 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game, Natural Heritage Division, Sacramento, CA, 1986.

Jaeger, E.C., 1957. The North American Deserts. Stanford University Press, Stanford. 308 pp., 1957.

The Nature Conservancy, 1985. *Coachella Valley Fringe-toed Lizard Habitat Conservation Plan*. Prepared for the Coachella Valley Fringe-toed Lizard Steering Committee chaired by The Nature Conservancy, San Francisco, California, June 1985.

Raven, P. and D. Axelrod, 1978. *Origin and Relationships of the California Flora*, University of California Publication in Botany, 72:1-134, 1978.

Riverside County, 2003a. *Riverside County General Plan, Chapter 5: Multipurpose Open Space Element*, adopted 2003.

Riverside County, 2003b. *Western Coachella Valley Area Plan*, 2003.

Southern California Edison (SCE), 2007. *Devers-Mirage 115 kV Subtransmission System Split Project – Final Biological Assessment for Threatened and Endangered Species*. Dec 2007.

SCE, 2008, *Proponent's Environmental Assessment for the Devers-Mirage 115 kV Subtransmission System Split Project*, 2008.

SCE and TRC, 2009a. *Draft Biological Resources Survey Report for Coachella Valley Milkvetch for the Mirage System Split 115 kV Transmission Line Project*, May 2009.

SCE and TRC, 2009b. *Habitat Assessment for Coachella Valley Fringe-Toed Lizard and Coachella Valley Milkvetch*, May 2009.

SCE and TRC, 2009c. *Coachella Valley Fringe-Toed Lizard Focused Survey Results (SCE and TRC)*, August 2009.

Stebbins, R.C., *2003. Western Reptiles and Amphibians*. Third Edition. Peterson Field Guide Series. Houghton Mifflin Company, Boston, 2003.

Turner, R.M., 1994. Sonoran Desertscrub *In* D. E. Brown, editor. Biotic Communities: Southwestern United States and Northwestern Mexico. University of Utah Press, Salt Lake City, 1994.

Turner, R.M. and D.E. Brown., *1982. Sonoran Desertscrub*. Pages 181-221 In D.E. Brown, editor. Biotic Communities of the American Southwestern - United States and Mexico. *Desert Plants*, Vol. 4, Nos. 1-4, 1982.

United States Fish and Wildlife Service (USFWS), 1980. *Federal Register: Endangered and Threatened Wildlife and Plants; Listing as Threatened with Critical Habitat for the Coachella Valley Fringe-Toed Lizard*, 50 CFR Part 17 Vol. 45, No. 188, September 25, 1980.

USFWS, 1998. *Federal Register*: *Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for Astragalus lentiginosus var. coachellae (Coachella Valley milkvetch*, Vol. 69, No. 239. pp. 74471-74472, October 6, 1998.

USFWS, 2005. *Federal Register: Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Astragualus lentiginosus var. coachellae* (Coachella Valley Milkvetch), Final Rule, 2005.

Wheeler, B. K., *Raptors of Western North America*, Princeton University Press, Princeton. 544 pp, 2003.

Zeiner, D.C., Laudenslayer, W. F., Mayer, K. E., and White, M., eds., 1990a. California's Wildlife, Volume II, Birds. California Statewide Wildlife Habitat Relationships System. Calif. Dept. Fish and Game, Sacramento, CA. Data available online at: http://www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx, 1990.

Zeiner, D.C., W. F. Laudenslayer, Jr., K.E. Mayer, and Marshall White, Editors, 1990b. *California's Wildlife, Volume III Mammals*, California Statewide Wildlife Habitat Relationships System. Calif. Dept. Fish and Game, Sacramento, CA. Data available online at: http://www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx, 1990.

4.5 Cultural Resources

This section presents the environmental setting and impact assessment for cultural and paleontological resources. Cultural resources are defined as prehistoric and historic sites, structures, and districts, or any other physical evidence associated with human activity considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason. For analysis purposes, cultural resources may be categorized into three groups: archaeological resources, historic resources, and contemporary Native American resources. Paleontology concerns the fossil remains of plants and animals.

Background

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric-era (before the introduction of written records for a particular area) or historic-era (after the introduction of records). The majority of such places in California are associated with either Native American or Euro-American occupation of the area. The most frequently encountered prehistoric or historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites with rock art. Historic-era archeological sites may include foundations or features such as privies, corrals, and trash dumps.

Historic resources are standing structures (mostly buildings) that may have historic or aesthetic significance that are generally 50 years of age or older (i.e., anything built in the year 1959 or before). In California, historic resources considered for protection tend to focus on architectural sites dating from the Spanish Period (1529-1822) through the early years of the Depression (1929-1930), and military resources such as World War II bases. Historic resources are often associated with archaeological deposits of the same age.

Contemporary Native American resources, also called ethnographic resources, can include archaeological resources, rock art, and the prominent topographical areas, features, habitats, plants, animals, and minerals that contemporary Native Americans value and consider essential for the preservation of their traditional values.

Paleontology is a branch of geology that studies the life forms of the past left preserved in stone that occur in certain geological formations. Fossils, specifically prehistoric life forms, can answer questions about evolution, climate change, and extinction of species. Paleontological resources represent a limited, non-renewable, and impact-sensitive scientific and educational resource. As defined in this section, paleontological resources are the fossilized remains or traces of multi-cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints from a previous geologic period. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the collecting localities, and the geologic formations containing those localities.

4.5.1 Setting

Environmental Setting

A report authored by Eckhardt and Jordan (2007a), serves as the primary source for the following environmental setting. The study area crosses multiple Coachella Valley desert communities within Riverside County, namely Palm Springs, Cathedral City, Rancho Mirage, Thousand Palms, Palm Desert, and Indian Wells. These communities are within the northern extent of the Salton Trough Province, also known as the Colorado Desert Province. The Salton Trough is a low-lying barren desert basin with alluvial fans, "isolated low hills, and the extensive valley wash and sand dune areas" of the Whitewater River drainage (WESCO, 1987). The Coachella Valley is comprised of recent sediments received from the surrounding mountain features, namely the San Jacinto and Santa Rosa Mountains. The recent Quaternary alluvium consists of unconsolidated stream, river channel, and alluvial fan deposits including local Aeolian sand, as well as Quaternary lake deposits of clay, silt, sand, and beach gravel from extinct Lake Cahuilla (CDMG, 1986). Geological composition of elevated features within the valley, including Garnet Hill and Indio Hills, are predominantly Pleistocene nonmarine deposits with some Pliocene-Pleistocene nonmarine sedimentary deposits of gray to brown conglomerate, arkosic sandstone, siltstone, and red claystone (CDMG, 1986). The existence of multiple fault zones, including the Banning and Mission Creek branches of the San Andreas, contribute to extensive folding and dissection of geological deposits and features.

The natural environment for the study area is within the northwestern portion of the Colorado Desert Bioregion, a region that extends from the Mexican border north to San Bernardino County at the southern edge of Joshua Tree National Park, east to the Colorado River and west into Riverside and San Diego counties (RAC, 1998). Vegetation communities within the Colorado Desert Bioregion include conifer, woodland, shrub, grassland, desert, urban, agriculture, barren, and water (RAC, 1998). The study area is within desert and developing urban areas between Desert Hot Springs, Palm Springs, and Palm Desert. In undeveloped areas, creosote bush scrub is the most prolific vegetation community (Sawyer and Keller-Wolf, 1995). Stands of Blue Palo Verde-Ironwood-Smoke Tree and Mesquite variety are also present, more commonly within desert washes (Sawyer and Keller-Wolf, 1995); Colorado Desert cactus scrub is typically found in the same environment as Creosote Bush Scrub. Other bioregions potentially present are the Colorado Desert chaparral and saltbrush scrub.

Cultural Setting

Prehistoric

Prehistoric occupation of the Colorado Desert can be divided into three broad periods: Paleo-Indian (11,000 to 6000 B.C.), Archaic (6000 B.C. to A.D. 200) and Late Prehistoric (A.D. 200 to European Contact).

Paleo-Indian (circa [c.] 11,000-6,000 B.C.)

While human occupation of California is known to date back to at least 11,000 B.C., the Paleo-Indian period is sparsely represented in the Colorado Desert area (Schaefer and Laylander, 2007). In terms of material culture, this period is typified by stone tools such as Lake Mojave and Silver Lake projectile points, bifaces, steep-edged unifaces, crescents, and some ground stone implements (Sutton et al., 2007). Paleo-Indian period groups were organized in relatively small, mobile groups and practiced a forager-like subsistence strategy (Schaefer et al., 2009a). Some trade with coastal groups was practiced, as evidenced by the presence of shell beads.

Archaic Period (c. 6,000 to A.D. 200)

Archaeological deposits dating from the Archaic Period suggest that Archaic settlement patterns consisted of seasonal occupation by small, semi-sedentary groups that were dependent upon a combination of big and small-game hunting and collection strategies, which could include the exploitation of stream or water resources. Typically, sites of this period are found along lakeshores, such as ancient Lake Cahuilla, and streams or springs, some of which are now dry (Warren, 1984). Material culture representative of this period in California prehistory includes roughly formed projectile points, “heavy-keeled” scrapers, choppers, and a greater prevalence of flat millingstones and manos, indicating a more intensive use and processing of plant resources. Around 3000 B.C., environmental conditions became much drier and hotter, and few sites have been found in the region that date to the period between 3000 and 2000 B.C., suggesting that the California deserts may have been largely abandoned during this period of unfavorable climate (Sutton et al., 2007; Schaefer et al., 2009a).

Many archaeological sites dating to the later Archaic period are small and surficial, probably of a temporary nature. It is during this time that there is more archaeological evidence suggestive of inter-tribal trade, particularly between the desert and the coast (Warren, 1984). The artifact assemblage associated with this period includes an increase in the prevalence of millingstones and manos, and it is believed that it was during this period that the pestle and mortar were introduced. These technological developments may point to the increased consumption of seeds and mesquite. Other artifacts associated with the late Archaic Period include Humboldt Concave Base, Gypsum Cave, Elko Eared, and Elko Corner-notched projectile points.

Late Prehistoric Period (c. A.D. 200 to European Contact)

The archaeological record of the Late Prehistoric Period attests to established trade routes between desert and coastal populations by way of shell beads and steatite, as well as an introduction of Anasazi influence from the eastern Great Plains as evidenced by the appearance of turquoise and pottery. Material culture related to the earlier part of this period includes obsidian artifacts, Rose Spring and Eastgate projectile points, millingstones, manos, mortars and pestles, slate pendants, and incised stones. The advent of the bow and arrow around A.D. 800 represents a major innovation during the Late Prehistoric Period. Around the same time, floodplain agriculture began to be practiced in some areas.

It is believed that the extensive networks of established trade routes encouraged or were the motivating factors for the development of an "increasingly complex socioeconomic and sociopolitical organization" within Protohistoric peoples in the Southern California area (Warren, 1984). Desert Side-notched and Cottonwood projectile points, brownware and buffware ceramics, steatite shaft straighteners, painted millingstones, and to a lesser degree, coastal shell beads, are all common artifacts from the later part of the Late Prehistoric. Between A.D. 1000 and 1700, settlement was focused less on the floodplains of the Colorado River and the populations became more mobile, travelling between the Colorado River and Lake Cahuilla (Schaefer et al., 2009a). With the final recession of Lake Cahuilla around 1700, desert populations became reliant again upon the floodplains of the Colorado River, New River, and Alamo River.

Ethnohistory

The Cahuilla were a Takic-speaking people consisting of hunters and gatherers who are generally divided into three groups based on their geographic setting: the Pass Cahuilla of the Beaumont/Banning area; the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains; and the Desert Cahuilla from the Coachella Valley, as far south as the Salton Sea (Bean, 1978).

The Cahuilla lived in family groups, or clans that were in turn grouped within two main divisions. People from clans in one division had to marry into clans from the other division. Interaction between clans was limited to trade, intermarriage, and performing ceremonies. Individual clans had villages, or central places, and territories they considered theirs for purposes of hunting game, gathering food, and other necessary resources.

Varying clan groups of the Desert Cahuilla had many villages throughout the Coachella Valley. Planted crops, as well as hunting and gathering, was identified as the main way of life for the Cahuilla. Prior to European contact, population estimates for the Cahuillas range from 3,600 to as high as 10,000 persons. Due to European diseases, such as smallpox, the Cahuilla population was decimated during the 19th Century (Bean, 1978).

Historic Period

The first substantial Spanish exploration began with the *entradas* of Father Jacobo Sedelmayr in 1744, when he traversed the area near what is now Blythe, controlled at that time by the Halchidoma. Francisco Garces and his party crossed portions of the area in 1771, and again in 1776. Spanish Army Captain Juan Bautista de Anza passed through Coyote Canyon and the Santa Rosa Mountains in the San Francisco expeditions of 1774-1776 (Eckhardt, 2006). Unlike the coastal regions to the west, the desert area was rarely traversed until after Mexican independence in 1821, nor were Spanish- or Mexican-period ranchos or large-scale land grants established.

The Mexican-American War (1846-1848) led to the occupation of Alta California by the United States and the area witnessed a gradual increase in travel and commerce. Some small-scale mining took place within the deserts between 1860 and 1890. Tungsten, gold, and silver were mined from the soils in the Old Woman Mountains and the Chuckwallas; however, Salt and

gypsum mines, coupled with iron deposits in the Eagle Mountains after World War I, have been the most successful and enduring mining activities in the desert (Eckhardt and Jordan, 2007a).

By 1879, the Southern Pacific Railroad extended from Los Angeles to Indio, and in the 1880s the Atlantic and Pacific Railroad (now the Santa Fe Railway) was constructed across the desert. In the early 20th Century, the advent of the automobile allowed for the expansion of settlement and land use beyond the limited reach of the rail systems. The construction of the Metropolitan Water District (MWD) aqueduct, between 1934 and 1941, fueled the local economy in the midst of the Great Depression, and the MWD established company towns at several of their pumping plants. The construction of Boulder Dam and its associated hydroelectric facilities in the 1930s set the stage for the first of many trans-desert transmission lines (Eckhardt and Jordan, 2007a).

Although existing from only 1942 to 1944, the development and use of General George Patton's Desert Training Center (DTC) had a significant effect on both the economy and on the desert landscape. The DTC served as the training grounds for soldiers bound for the deserts of Africa. The DTC spread over many square miles and included not only the semi-permanent operations facilities, but also outlying tank training grounds, infantry camps, and outposts (Eckhardt and Jordan, 2007a).

Cultural Resources

A cultural resource study was conducted to identify and evaluate cultural resources within the study area, including the area of potential effect (APE), from June 2006, to October 2007 (Eckhart and Jordan, 2007a; 2007b; and 2007c). Additional work was conducted in June and July 2009 for Alternatives 6 and 7 (Schaefer et al., 2009a; 2009b). The cultural resources assessment included a records search, archival research, pedestrian surveys, and evaluations of the built environment for the Proposed Project and alternative alignments.

Area of Potential Effect (APE)

SCE defined the APE as all possible alignments (proposed and alternative) for the two proposed 115 kV transmission lines, the proposed Devers-Coachella Valley 220 kV Loop-In, the 115 kV subtransmission line reconfigurations, and proposed modifications to the ten substations.

Records Search

Project-specific records searches of the California Historical Resources Information System (CHRIS) were performed at the Eastern Information Center (EIC) in Riverside on April 26, 2006, June 14, 2006, May 19, 2007, and June 24, 2009. These records searches included an examination of previous survey coverage and reports, historic maps, and known cultural resources within a 0.5-mile radius of the APE. Other sources that were reviewed included the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historic Places (California Register), the National Register of Historic Places (National Register), the California State Historic Resources Inventory (HRI), and archived topographic maps dating 1904, 1940, 1941, 1942, and 1957.

Native American Contact

Contact was made with the Native American Heritage Commission (NAHC) in June 2006, May 2007, and October 2007. The NAHC response identified one significant resource in the study area, *Hoon wit ten ca va* (Garnet Hill), which is discussed below. In June 2009, after Alternatives 6 and 7 were added, the NAHC was again contacted and responded that there were several Native American resources within 0.5-mile of the Proposed Project and alternative alignments and sites, and that the area was "quite sensitive."

The NAHC also provided a list of Native American contacts that may have knowledge of additional resources in the study area. Potential interested parties recommended by the NAHC were contacted via letter in October 2006. Responses were received from the Morongo and Agua Caliente tribes. In July 2008, follow-up phone calls were made on behalf of the CPUC to all Native American contacts to ensure potentially affected groups were aware that the project was proceeding. The Agua Caliente Band of Cahuilla Indians acknowledged the presence of a traditional cultural property at Garnet Hill and expressed concern for potential impacts to cultural resources. SCE invited Agua Caliente tribal members to a tour of site CA-RIV-785. Ms. Patty Tuck attended the site visit on behalf of the tribe.

Field Survey

A field survey was conducted for the APE for the Proposed Project alignments and the Alternative 2, 3, and 5 alignments in June and July 2006, and May 2007 (Eckhart and Jordan, 2007a; 2007b; and 2007c). An additional field visit was made to site CA-RIV-785 in April 2008, by SCE archaeologist Philippe Lapin and Dr. Mitch Marken, Director of Cultural Resources for Environmental Science Associates on behalf of the CPUC.

In 2009, additional field surveys were performed for the Alternative 6 and 7 alignments and for the 0.8-mile portion of the proposed Farrell-Garnet alignment that would require new 115 kV ROW (Schaefer et al., 2009a). The field surveys consisted of intensive archaeological surveys performed in transects of 40 to 50 feet for all areas located within open terrain along the proposed and alternative alignments crossing undeveloped land, and for all areas where previously recorded cultural resource sites have been encountered along the proposed and alternative alignments.

Light reconnaissance was performed for portions of the alternative alignments within built urban environments. This consisted of vehicle-based survey and observation as well as pedestrian survey in areas where native soil was present.

A site visit was made by Dr. Mitch Marken in January 2010. Dr. Marken relocated and documented historic resource site 33-8408 (Varner Road) where it intersects the proposed Mirage-Santa Rosa and Alternative 5 alignments.

Several areas were not surveyed due to access restrictions, including: a 0.25-mile segment of the proposed Farrell-Garnet 115 kV subtransmission line alignment just south of Interstate 10 (I-10); and the Alternative 6 and 7 alignments where they cross the Agua Caliente Indian Reservation. In

the event that an alternative alignment is selected, any unsurveyed portions of the selected alignment should be surveyed by a qualified archaeologist prior to project implementation.

Site recording procedures conformed to the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation*, as amended and annotated (U.S. Department of the Interior, 2008). Known sites were relocated and recorded. All cultural resources encountered in the field were individually recorded using a global positioning system and assigned temporary field numbers. A Department of Parks and Recreation (DPR) primary form was completed for each resource.

Findings

The cultural resources records search revealed the presence of the following five previously recorded cultural resources within the APE for the proposed and alternative alignments.

Hoon wit ten ca va (Garnet Hill). This resource is located within the APE for the proposed Farrell-Garnet 115 kV subtransmission line alignment and within the APE for the Alternative 2 and Alternative 3 alignments. Garnet Hill, also known by its traditional name *Hoon wit ten ca va*, is a place of cultural significance to the Cahuilla Indian Tribe. According to Cahuilla cultural tradition, the hero *Ca wis Ke on ca* named the hill in his delineation of the territory of the *Kauisiktum* lineage. The traditional territory of the *Kauisiktum* encompasses the City of Palm Springs and much of the surrounding area. Although the site is recorded in the Sacred Lands File, maintained by the California NAHC, it has not been formally recorded or entered into the CHRIS. Because Garnet Hill plays an important role in the history of the Cahuilla, the hill and surrounding landscape have the potential to be significant as a Traditional Cultural Property (TCP). Traditional cultural significance is derived from the role a property plays in a community's historically rooted beliefs, customs, and practices. Properties may be eligible for the NRHP under Criterion A if they are associated with events, or a series of events, significant to the cultural traditions of a community. *Hoon wit ten ca va* (Garnet Hill) appears eligible for listing in the NRHP and CRHR under Criterion A.

CA-RIV-785. This resource is located within the APE for the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. CA-RIV-785 is a prehistoric temporary encampment, originally recorded in 1974 as a surface scatter of artifacts. Artifacts initially observed at the site included lithics, manos, ceramics, fire-cracked rock, hammerstones, and a cottonwood projectile point. Also noted were burnt animal bone and cremated remains. Phase III archaeological testing in 1992 confirmed that the site consisted largely of surface deposits; however, three new subsurface features were recognized—a hearth, a cremation burial, and a possible house floor (Everson et al, 1993). The cremation burial contained the remains of one human, along with 182 shell beads. The site was interpreted to be a moderate-sized encampment, occupied intermittently over time, with habitation spanning from 150 to 1,000 years before the present. The excavators concluded that the large-scale Phase III excavation efforts had exhausted the information potential of the site (Everson et al., 1993).

The 2006 archaeological survey for the project (Eckhardt and Jordan, 2007a) located the site and confirmed the presence of existing features, confirmed that it matches the general site description, and revealed that existing pole structures and an access road bisect the

resource. Given the presence of possible additional burials and the unknown research potential of the site, despite the extensive previous excavation effort, the site is treated as eligible for listing in the NRHP and CRHR under Criterion D/4, ability to provide information important to prehistory.

33-8408 (Varner Road). This resource is located within the APE for the proposed reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV line, the proposed Mirage-Santa Rosa 115 kV subtransmission line alignments, and Alternative 5, 6 and 7 alignments. It was relocated during the 2009 archaeological survey. Varner Road extends east from Garnet Hill toward Seven Palms Valley. The road, a two-lane asphalt road constructed around 1915, was once known as US-99/US-60, and was part of a major transcontinental roadway.

A 4.8-mile segment of Varner Road stretching from the intersection of Varner Road and Date Palm Drive west towards Garnet Hill was previously evaluated, as part of the 2009 cultural resources studies conducted for the Alternatives 6 and 7 alignments, as eligible for listing in the NRHP and CRHR under Criterion A/1, association with events that have made a significant contribution to the broad patterns of history, as a "distinctive and well-preserved element of early automobile travel through the Coachella and Chuckwalla valleys that preceded the Interstate highway system" (Schaefer et al., 2009aa:39). The evaluation noted that the segment appeared to be part of the original 1915 route, and that the pavement appeared to be original, indicating that the road retained much of its integrity. This previously evaluated segment included the portion of the APE encompassing the reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV line.

No formal evaluation of the segments of Varner Road that intersect the proposed Mirage-Santa Rosa 115kV subtransmission line alignment and the Alternative 5 alignment has been conducted; however, based on the previous evaluation (Schaefer et al., 2009a), and for the purposes of this CEQA study, it is assumed that all of these segments of Varner Road that would be impacted by implementation of the Proposed Project and its alternatives are similar to the previously evaluated segment and therefore are eligible for listing on the NRHP and CRHR. While the pavement on these unevaluated segments is not original, it is assumed that the route of Varner Road where it traverses the project area is original in intact. Therefore, Varner Road where it exists within the APE is considered a historical resource for the purposes of CEQA.

33-8411 (Vista-Hayfield/Devers-Hinds 220 kV transmission line). This resource is located within the APE for the Alternatives 6 and 7 alignments and was relocated during the 2009 archaeological survey. The transmission line was originally constructed in 1950 and runs through the northern Coachella Valley from the Hayfield pumping station on the Colorado river with Vista Substation in San Bernardino. Site 33-8411 does not appear eligible for listing the NHRP or CRHR.

33-9498/CA-RIV-6381H (Southern Pacific Railroad/Union Pacific Railroad line). This resource is within the APE for the proposed and alternative subtransmission line alignments and was relocated during the 2009 archaeological survey. The original railroad line was constructed in 1876. CA-RIV-6381H appears eligible for listing in the NRHP and CRHR under Criterion A/1, association with events that have made a significant contribution to the broad patterns of history.

The following five newly recorded resources were identified during the cultural resource surveys for the Proposed Project and alternatives.

33-15429. This resource is located within the APE for the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. This prehistoric site consists of a lithic scatter, a single brown ware ceramic sherd, and a near complete brown ware ceramic vessel. In addition to the ceramics, two milling tools and a small number of fire-affected cobbles were also observed. The resource is bisected by the existing 115 kV subtransmission line. It is located approximately 100 feet north of the previously recorded resource CA-RIV-785, with which it is likely associated. The site may be related to site CA-RIV-785 and may be eligible for listing in the NRHP and CRHR under Criterion D/4, ability to provide information important to prehistory.

33-15430. This resource is located within the APE for the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. This resource consists of a small discrete scatter of pottery sherds most likely associated with a single pot drop. Site 33-15430 is located 330 feet northwest of Site 33-15429 and more than 660 feet northwest of CA-RIV-785. Again, close proximity to the other recorded sites indicates a strong association with the broader resource area. During a field visit in April 2008, no evidence of this resource could be detected on the surface. However, the site may be related to site CA-RIV-785 and is treated as eligible for listing in the NRHP and CRHR under Criterion D/4, ability to provide information important to prehistory.

33-15431. This resource is located within the APE for the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. This resource is a single, isolated granitic milling handstone identified during the survey. The item was located along the margins of an access road. No other artifacts were observed in association with the handstone. As an isolated artifact, its research potential has been exhausted in the process of recording the artifact on a DPR form, and the artifact does not appear to possess the potential to provide information important to the study of prehistory. Isolate 33-15431 is not eligible for listing on the NRHP or CRHR.

RIV-9232. This resource is located within the APE for the Alternative 6 and 7 alignments. This resource is an historic period trash scatter. The site does not have the potential to yield information important to the study of history and thus does not appear eligible for the NRHP or CRHR.

RIV-9233. This resource is located within the APE for the Alternative 6 and 7 alignments. This resource consists of the remains of a cobble and concrete structure and an associated historic-period trash scatter. The site does not have the potential to yield information important to the study of history, and thus does not appear eligible for the NRHP or CRHR.

Paleontological Resources

Research was conducted to determine whether sensitive paleontological resources could be affected by the Proposed Project or alternatives. A review of published and unpublished documents and maps, supplemented by an archival search conducted at the Natural History Museum of Los Angeles County, was conducted by E. Bruce Lander, PhD, of Paleo-Environmental Associates (Lander, 2007).

The results of the paleontological literature and map review indicated that sections of the survey area had been previously studied and that paleontological resources sites have been recorded in the area (Lander, 2007). The following eight geological formations occur within the study area.

Imperial Formation

The Imperial Formation is exposed at Garnet Hill, at the southeast corner of the intersection of Indian Avenue and Garnet Avenue. Within this area, the formation has yielded fossilized remains representing a taxonomic diversity of late Miocene marine invertebrate taxa, including clams, snails, barnacles, sea urchins, and sand dollars (Dibblee, 2004; Powell, 1995; and Proctor, 1968). The formation has yielded the fossilized bones of whales on the divide between Whitewater Canyon and the northwestern end of the Coachella Valley (Thomas and Barnes, 1993). In the Coyote Mountains of Imperial County, the Imperial Formation (also known as the Imperial Group) has yielded the fossilized bones of a walrus, whales, sea cows, and a camel. Based on the high occurrence of fossils, the Imperial Formation is classified as being of high paleontologic importance.

A review of the Paleontological Sensitivity Map of Riverside County also indicates that the Imperial Formation is considered to have a high potential to contain significant non-renewable paleontological resources.

Ocotillo Conglomerate

The Ocotillo Conglomerate (or Ocotillo Formation) underlies the northeastern margin of the study area. No fossil site is recorded within the study area and vicinity where it is underlain by the Ocotillo Conglomerate; however, in the Coyote Mountains of Imperial County, this formation has produced early Pliocene to middle or late Pleistocene fossils. However, the formation as it exists in the study area is probably too coarse-grained to contain any fossil remains (Lander, 2007). The Ocotillo Conglomerate is classified as being of low paleontologic importance.

Cabazon Fanglomerate

No fossil site is recorded within the study area and vicinity where it is underlain by the Cabazon Fanglomerate, which underlies the northwestern margin of the Farrell-Garnet study area, including Garnet Hill. Moreover, this formation, which consists of cobble to boulder conglomerate (Dibblee, 2004), is probably too coarse-grained to contain any fossil remains. The Cabazon Fanglomerate is classified as being of low paleontologic importance (Lander, 2007).

Older Alluvium

Older alluvium has yielded the fossilized bones and teeth of Pleistocene land mammals at other locations in California; however, no fossil site has been recorded from this rock unit in or near the study area. Older alluvium is classified as being of low paleontologic importance (Lander, 2007).

Alluvial Fan Deposits

Alluvial fan deposits occur at the mouths of canyons at the foot of the San Jacinto Mountains, in the southwestern portion of the study area. No fossils have been recorded from these deposits. Alluvial fan deposits are classified as being of low paleontologic importance (Lander, 2007).

Stream Channel Deposits

Stream channel deposits underlie the floors of the major drainages that cross the floor of the Coachella Valley. No fossils have been recorded from these deposits. Stream channel deposits are classified as being of low paleontologic importance (Lander, 2007).

Younger Alluvium

Younger alluvium underlies the floor of the Coachella Valley between the major drainages. No fossil sites are recorded from this unit in or near the study area. Near the surface, this unit is probably too young and coarse grained to contain fossil remains. However, in other regions and at shallow depths, younger alluvium has produced early Holocene Fossils. Near the surface, younger alluvium is classified as being of low paleontologic importance; however, at depth it is classified as being of high paleontologic importance (Lander, 2007).

Dune Sand

Dune sand covers the floor of the Coachella Valley. No fossils have been recorded from this unit in the study area and it is probably too young to contain any fossils. Therefore, dune sand is classified as being of low paleontologic importance (Lander, 2007).

Cultural Resources Regulatory Framework

Numerous laws and regulations require federal, State, and local agencies to consider the effects a project may have on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (e.g., State Historic Preservation Office and the Advisory Council on Historic Preservation). The National Historic Preservation Act (NHPA) of 1966, as amended; the California Environmental Quality Act (CEQA); and the California Register of Historical Resources, Public Resources Code (PRC) 5024, are the primary federal and State laws governing and affecting preservation of cultural resources of national, State, regional, and local significance.

Federal

While most of the Proposed Project and alternative alignments would be located on private land, a short segment (approximately 750 feet by 30 feet) of the proposed Farrell-Garnet 115 kV subtransmission line and three short segments of the Alternative 6 and 7 subtransmission lines would extend across federal land managed by the Bureau of Land Management (BLM) Palm Springs Field Office. These short segments that cross BLM land would be subject to Section 106 of the NHPA.

In addition, permits from federal agencies such as the Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service, and the Federal Aviation Administration may be required. In this case, construction of the proposed Farrell-Garnet transmission line or the Alternative 6 and 7 subtransmission lines would have to comply with Section 106 of the NHPA.

Section 106 of the NHPA

Archaeological resources are protected through the NHPA of 1966, as amended (16 USC 470f), and its implementing regulation, Protection of Historic Properties (36 CFR Part 800), the Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979. Prior to implementing an "undertaking" (e.g., issuing a federal permit), Section 106 of the NHPA requires federal agencies to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation and the State Historic Preservation Officer a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register of Historic Places. As indicated in Section 101(d)(6)(A) of the NHPA, properties of traditional religious and cultural importance to a tribe are eligible for inclusion in the National Register. Under the NHPA, a find is considered significant if it meets the National Register listing criteria at 36 CFR 60.4.

As mentioned above, construction of the Proposed Project and alternatives would require federal permits, including a permit from the USACE under Section 404 of the Clean Water Act, and as such must be in compliance with Section 106 of the National Historic Preservation Act.

National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the NHPA of 1966, as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (CFR 36 Section 60.2). The NRHP recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels.

To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 1995):

A. Are associated with events that have made a significant contribution to the broad patterns of our history;

B. Are associated with the lives of persons significant in our past;

C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least fifty years old to be eligible for NRHP listing (U.S. Department of the Interior, 1995).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (U.S. Department of the Interior, 1995). The NRHP recognizes seven qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

State

The State implements the NHPA through its statewide comprehensive cultural resources surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State's jurisdictions.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change." (California Public Resources Code [PRC] § 5024.1[a]). The criteria for eligibility for the CRHR are based upon NRHP criteria (California PRC § 5024.1[b]). Certain resources are determined by the statute to be automatically included in the CRHR, including California properties formally determined eligible for, or listed in, the National Register of Historic Places.

To be eligible for the California Register of Historical Resources, a prehistoric or historical-period property must be significant at the local, State, and/or federal level under one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the CRHR must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as an historical resource and to convey the reason for its significance. It is possible that an historic resource may not retain sufficient integrity to meet the criteria for listing in the NRHP, but it may still be eligible for listing in the CRHR.

Additionally, the CRHR consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The CRHR automatically includes the following:

- California properties listed on the National Register of Historic Places and those formally Determined Eligible for the National Register of Historic Places.
- California Registered Historical Landmarks from No. 770 onward.
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the CRHR include:

- Historical resources with a significance rating of Category 3 through 5 (Those properties identified as eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, and/or a local jurisdiction register).
- Individual historical resources.
- Historical resources contributing to historic districts.
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources. CEQA is codified at Public Resources Code sec 21000 et seq. As defined in Section 21083.2 of CEQA a “unique” archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, the CEQA Guidelines recognize that certain historical resources may also have significance. The Guidelines recognize that an historical resource includes: (1) a resource in the California Register of Historical Resources; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in an historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is an historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines apply. If an archaeological site does not meet the criteria for an historical resource contained in the CEQA Guidelines, then the site is to be treated in accordance with the provisions of CEQA Section 21083, which is a unique archaeological resource. The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5(c)(4)).

Historic resources are usually 45 years old or older and must meet at least one of the criteria for listing in the CRHR (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity (CEQA Guidelines Section 15064.5[a][3]).

Local

Riverside County

Specific policies within the current General Plan for the County of Riverside that apply to cultural resources include (County of Riverside, 2003):

> *Policy OS 19.2*: Review all proposed development for the possibility of archaeological sensitivity;
>
> *Policy OS 19.3*: Employ procedures to protect the confidentiality and prevent inappropriate public exposure of sensitive archaeological resources when soliciting the assistance of public and volunteer organizations;
>
> *Policy OS 19.4:* Require a Native American Statement as part of the environmental review process on development projects with identified cultural resources; and
>
> *Policy OS 19.5*: Transmit significant development proposals to the History Division of the Riverside County Regional Park and Open-Space District for evaluation in relation to the destruction/preservation of potential historical sites. Prior to approval of any development proposal, feasible mitigation shall be incorporated into the design of the project and its conditions of approval.

City of Palm Springs

The City of Palm Springs General Plan contains the following applicable goal, policies, and actions concerning cultural resources (City of Palm Springs, 2007):

> *Goal RC10*: Support, encourage, and facilitate the preservation of significant archaeological, historic, and cultural resources in the community.
>
> *Policy RC10.1*: Support the preservation and protection of historically, architecturally, or archaeologically significant sites, places, districts, structures, landforms, objects, native burial sites and other features.
>
> *Policy RC10.4*: Continue to protect individual historic sites, buildings, and neighborhoods as set forth by the Historic Preservation Ordinance and other related historic ordinances.
>
> *Policy RC10.5*: Actively encourage and promote the understanding, appreciation, and preservation of the archaeological, historic, and cultural resources.
>
> *Policy RC10.6*: Maintain active communication and cooperation with the Tribal Historic Preservation Office, the Palm Springs Historic Society and other historic preservation entities.
>
> *Action RC10.3*: Require site assessment conducted by a qualified specialist whenever information indicates that a site proposed for development may contain paleontological, historic, or archaeological resources.
>
> *Action RC10.4*: Establish an MOU with the University of California at Riverside to review and provide recommendations for projects potentially affecting archeological, historic, and cultural resources.

City of Palm Desert

The City of Palm Desert General Plan contains the following applicable goal, policies, and programs concerning cultural resources (City of Palm Desert, 2004).

> *Goal:* Documentation, maintenance, preservation, and enhancement of archaeological and historic sites, artifacts, traditions, and other elements of the City's cultural heritage.
>
> *Policy 1*: The City shall exercise its responsibility to identify, document, and evaluate archaeological, historical, and cultural resources that may be affected by proposed development projects and other landscape-altering activities.
>
> *Program 1.A*: Development or land use proposals, which have the potential to disturb or destroy sensitive cultural resources, shall be evaluated by a qualified professional and, if necessary, comprehensive Phase I studies and appropriate mitigation measures shall be incorporated into project approvals.
>
> *Policy 4*: Sensitive archaeological and historic resources shall be protected from vandalism and illegal collection, to the greatest extent possible.
>
> *Program 4.B*: In the course of reviewing development proposals and cultural surveys that identify sensitive resources, the City shall, where appropriate, encourage in-place preservation or the recovery and preservation of materials for later study and/or display.

City of Rancho Mirage

The City of Rancho Mirage General Plan contains the following applicable goal, policies, and programs concerning cultural resources (City of Rancho Mirage, 2005):

> *Goal 1*: The preservation, maintenance, continuity, and enhancement of cultural heritage and resources in the City of Rancho Mirage, including historic and prehistoric cultural artifacts and traditions.
>
> *Policy 1*: The city shall exercise its responsibility to preserve archaeological, historical, and cultural sites.
>
> *Policy 2*: Development or land use proposals that have the potential to disturb or destroy sensitive cultural resources shall be evaluated by a qualified professional and appropriate mitigations measures shall be incorporated into project approvals, if necessary.
>
> *Program 2.A*: Encourage in-place preservation or the recover and preservation of materials for later study and display when reviewing development proposals and cultural surveys that identify sensitive resources.
>
> *Program 2.C*: Include Native American tribes, if requested, in the permit review process for new development applications.
>
> *Policy 3*: The City shall ensure the protection of sensitive archaeological and historical resources from vandalism and illegal collection

City of Cathedral City

The City of Cathedral City General Plan contains the following applicable goal, policies, and programs concerning cultural resources (City of Cathedral City, 2002):

> *Goal*: Identification, preservation, and revitalization of significant cultural, historical and archaeological resources that are valuable to the City of Cathedral City's heritage.
>
> *Policy 1*: The City will ensure that sites in archaeologically and historically sensitive areas are surveyed prior to development.
>
> *Program 1.B*: City staff shall require, early in the project review process, the preparation of focused cultural resource surveys in areas of known sensitivity.
>
> *Program 1.C*: The City shall adopt specific standards for the identification, preservation and maintenance of archaeological and historic sites. These standards shall include professional qualifications for persons performing site-specific surveys.
>
> *Program 1.E:* In the event that archaeological resources are identified during construction, the City shall require that development cease, and a professional archaeologist shall be employed to examine and document the site to determine subsequent actions.
>
> *Policy 2*: The City shall make every effort to protect sensitive archaeological and historic resources from vandalism and illegal collection.
>
> *Program 2.A*: Mapping and site-specific information shall be kept confidential, and access shall be given only to those with appropriate professional credentials.

Program 2.B: The preservation of sensitive sites or artifacts in-situ should be considered whenever feasible.

Policy 4: Encourage public participation and appreciation of archaeological and historic resources.

Program 4.A: Continue to coordinate and cooperate with the Agua Caliente Band of Cahuilla Indians in the identification and preservation of sensitive Cahuilla Indian sites and resources, and the continued expansion of the tribal Cultural Museum.

City of Indian Wells

The City of Indian Wells General Plan contains the following applicable goal and policies concerning cultural resources (City of Indian Wells, 1996):

Goal IIIA3: Preservation of significant historical, cultural, and paleontological resources.

Policy IIIA3.1: Review all public and private development projects in areas of high potential for archaeological/paleontological resources and require strict adherence to CEQA guidelines for environmental documentation and mitigation measures

Policy IIIA3.2: Require sites proposed for future development to be evaluated for archaeological and paleontological resources either through a literature search or a survey by a certified archaeologist or paleontologist in accordance with CEQA.

Paleontological Resources Regulatory Context

Federal

A variety of federal statutes specifically address paleontological resources. They are generally applicable to a project if that project includes federally owned or federally managed lands or involves a federal agency license, permit, approval, or funding. Federal legislative protection for paleontological resources stems from the Antiquities Act of 1906 (PL 59-209; 16 United States Code 431 et. seq.; 34 Stat. 225), which calls for protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands.

State

Paleontological resources are also afforded protection by CEQA. Appendix G (Part V) of the *CEQA Guidelines* provides guidance relative to significant impacts on paleontological resources, stating that a project will normally result in a significant impact on the environment if it will "…disrupt or adversely affect a paleontologic resource or site or unique geologic feature, except as part of a scientific study." Section 5097.5 of the Public Resources Code specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for the damage or removal of paleontological resources.

Professional Standards

The Society for Vertebrate Paleontology (SVP) has established standard guidelines for acceptable professional practices in the conduct of paleontological resource assessments and surveys,

monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. Most practicing professional paleontologists in the nation adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most California State regulatory agencies accept the SVP standard guidelines as a measure of professional practice

Local

Riverside County

The Riverside County General Plan identifies the following policies that pertain to paleontological resources (County of Riverside, 2003):

> *Policy OS 19.8*: Whenever existing information indicates that a site proposed for development may contain biological, paleontological, or other scientific resources, a report shall be filed stating the extent and potential significance of the resources that may exist within the proposed development and appropriate measures through which the impacts of development may be mitigated.
>
> *Policy OS 19.9*: This policy requires that when existing information indicates that a site proposed for development may contain paleontological resources, a paleontologist shall monitor site grading activities, with the authority to halt grading to collect uncovered paleontological resources, curate any resources collected with an appropriate repository, and file a report with the Planning Department documenting any paleontological resources that are found during the course of site grading.
>
> *Policy OS 19.10*: Transmit significant development applications subject to CEQA to the San Bernardino County Museum for review, comment, and/or preparation of recommended conditions of approval with regard to paleontological resources.

City of Palm Springs

The City of Palm Springs General Plan contains the following applicable action concerning paleontological resources (City of Palm Springs, 2007):

> *Action RC10.3*: Require site assessment conducted by a qualified specialist whenever information indicates that a site proposed for development may contain paleontological, historic, or archaeological resources.

City of Palm Desert

The City of Palm Desert General Plan does not contain any policies on paleontological resources (City of Palm Desert, 2004).

City of Rancho Mirage

The City of Rancho Mirage General Plan does not contain any policies on paleontological resources (City of Rancho Mirage, 2005).

City of Cathedral City

The City of Cathedral City General Plan does not contain any policies on paleontological resources (City of Cathedral City, 2002).

City of Indian Wells

The City of Indian Wells General Plan addresses both paleontological and archaeological resources in the same policies, which are identified above under the discussion of City of Indian Wells cultural resources regulations (City of Indian Wells, 1996).

4.5.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, an impact resulting from the Proposed Project would be considered significant if it would:

a) Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5.

b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

d) Disturb any human remains, including those interred outside of formal cemeteries.

CEQA provides that a project may cause a significant environmental effect where the project could result in a substantial adverse change in the significance of an historical resource (Public Resources Code, Section 21084.1). CEQA Guidelines Section 15064.5 defines a "substantial adverse change" in the significance of an historical resource to mean physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be "materially impaired" (CEQA Guidelines, Section 15064.5[b][1]).

CEQA Guidelines, Section 15064.5(b)(2), defines that the significance of an historic resources is "materially impaired" when a project:

(A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

(B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(C) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Historic resources are usually 50 years old or older and must meet at least one of the criteria for listing in the California Register (such as association with historical events, important people, or architectural significance), in addition to maintaining a sufficient level of physical integrity (CEQA Guidelines Section 15064.5[a][3]).

Finally, CEQA Section 15126.4(b)(2) states that, "(2) In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur." This is supported by recent CEQA case law which finds that documentation will not mitigate the loss of an historic resource to a less than significant level, and that demolition of historic resources would have a significant unmitigable impact on the environment.

4.5.3 Applicant Proposed Measures

Cultural Resources

SCE proposes the following Applicant Proposed Measures (APMs) to minimize impacts to cultural resources from the Proposed Project. The impact analysis assumes that the following APMs would be implemented as discussed below.

APM CUL-1. Native American Consultations. Continued consultation and communication with interested Native American community to understand the concerns of Native American members in identifying measures that would prevent direct and indirect impacts. One such measure may include the following: if previously unidentified archaeological resources are unearthed during construction activities, construction will be halted in that area and directed away from the discovery, until a qualified archaeologist assesses the significance of the resource. The archaeologist would recommend appropriate measures to record, preserve, or recover the resources.

APM CUL-2. Discovery of Human Remains. If human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the county coroner makes the necessary findings as to origin, pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5. If the remains are determined to be Native American, then the NAHC would be notified within 24 hours, as required by Public Resources Code 5097. The Native American Heritage Commission (NAHC) would notify the designated Most Likely Descendants, who would provide recommendations for the treatment of the remains within 24 hours. The NAHC mediates any disputes regarding the treatment of remains.

APM CUL-3. Construction Monitoring. All ground-disturbing activities occurring along the Proposed Mirage-Santa Rosa 115 kV Subtransmission Line Alternative (Route 4)

would be monitored by a qualified archaeologist. The route is highly sensitive for cultural resources.

APM CUL-4.[1] Data Recovery Plan. An evaluation and data recovery plan shall be developed to address impacts to CA-RIV-785, 33-15429, and 33-15430.

APM CUL-5.[2] Cultural Resources Plan. A cultural resource management plan shall be developed to prevent operational impacts to the cultural resource located between the Mirage Substation and I-10.

APM CUL-6.[3] Garnet Hills Native American Cultural Resource. Appropriate measures, if deemed necessary, would be developed in consultation with Native American community members, as recommended by the NAHC, to address potential impacts to the Garnet Hills Native American cultural resource.

Paleontological Resources

SCE has committed to implementing the following prior to and during construction, in association with the development of the Proposed Project, in areas of potential paleontological sensitivity.

APM PA-1. Paleontological Field Assessment. Conduct a paleontological field assessment of the finalized ROWs for the Proposed Project, as needed.

APM PA-2. Paleontological Resources. Prior to construction, a paleontologist would salvage known, exposed paleontological resources. This would consist of collecting standard samples of fossiliferous sediments.

APM PA-3. Paleontological Monitoring. A paleontological monitor would be present during ground-disturbing activities within areas designated as having a high possibility for the presence of paleontological resources. The monitor would be empowered to temporarily halt or redirected construction activities to ensure avoidance of adverse impacts.

APM PA-4. Salvage and Recovery of Paleontological Resources. Upon encountering a large deposit of bone, salvage of all bone in the area would be conducted in accordance with modern paleontological techniques.

APM PA-5. Transfer of Fossils to Museum. All fossils collected would be prepared to a reasonable point of identification. Itemized catalogs of all material collected and identified would be provided to a museum repository along with the specimens. A specimen repository would be arranged, in writing, with a museum prior to initiation of construction excavation.

APM PA-6. Paleontological Reporting. A report documenting the results of the monitoring and salvage activities and the significance of the fossils would be prepared.

1 APM CUL-4 was identified as CUL-MIT-1 in the PEA.
2 APM CUL-5 was identified as CUL-MIT-2 in the PEA.
3 APM CUL-6 was identified as CUL-MIT-3 in the PEA.

4.5.4 Impacts and Mitigation Measures

Analysis Approach

Impacts on cultural resources could result from ground-disturbing activities, including project-related excavation, grading, brush-clearing, trenching, or other sub-surface disturbance that could damage or destroy buried archaeological resources including prehistoric and historic remains or human burials. Construction activities would vary by project component, but would include: removal and installation of wood and steel poles and towers; installation of conductor; construction of new access roads; maintenance of existing access roads, and grading of construction areas.

Potential impact thresholds are discussed below as defined by CEQA. Although the APMs outlined above would reduce those impacts, additional measures are recommended to ensure that cultural resources are protected.

a, b) Cause a substantial adverse change in the significance of an historical or unique archeological resource as defined in §15064.5.

Six potentially significant cultural resources, *Hoon wit ten ca va*, CA-RIV-785, 33-15429, 33-15430, 33-8408 (Varner Road), and CA-RIV-6381H (Southern Pacific/Union Pacific Railroad), have been identified within the project area.

Historic feature CA-RIV-6381H, the Southern Pacific/Union Pacific Railroad, would not be impacted by the Proposed Project. The railroad would be spanned by the proposed Farrell-Garnet 115 kV subtransmission line and the proposed Mirage-Santa Rosa 115 kV subtransmission line, and no ground disturbing activity would occur within the railroad right-of-way. Therefore, there would be no impacts to this resource (No Impact).

Historic resource 33-4808 (Varner Road), Native American cultural resource *Hoon wit ten ca va* and prehistoric archaeological sites CA-RIV-785, 33-15429, and 33-15430, could be impacted by the Proposed Project. Impacts are described in detail below.

Impact 4.5-1: Project construction could adversely affect historic site 33-8408, Varner Road. *Less than significant* (Class III)

A 4.8-mile segment of Varner Road stretching from the intersection of Varner Road and Date Palm Drive west towards Garnet Hill was previously evaluated, as part of the 2009 cultural resources studies conducted for the Alternatives 6 and 7 alignments, as eligible for listing in the NRHP and CRHR under Criterion A/1, association with events that have made a significant contribution to the broad patterns of history, as a “distinctive and well-preserved element of early automobile travel through the Coachella and Chuckwalla valleys that preceded the Interstate highway system” (Schaefer et al., 2009a:39). The evaluation noted that the segment appeared to be part of the original 1915 route, and that the pavement appeared to be original, indicating that the road retained much of its integrity. This evaluated segment included the portion of the APE encompassing the reconfigured Mirage-Capwind-Devers-Tamarisk 115 kV line.

Construction activity associated with the proposed 155 kV reconfiguration at Date Palm Drive and Varner Road would occur in the vicinity of a recorded historic segment of Varner Road near its intersection with Date Palm Drive. Ground disturbing activity in the vicinity of Date Palm Drive and Varner Road would consist of removing six wood poles and installing one new TSP and four new wood poles.

There is currently a wooden pole line along Varner Road, as well as several more modern subtransmission lines that cross above the intersection of Varner Road and Date Palm Drive. No ground-disturbing activity within the roadway itself or alteration to the resource's setting would take place. The removal and installation of the wood poles and TSP would have no impact on the integrity of the roadway. Given that Varner Road is considered eligible for the NRHP and CRHR under Criterion A/1 due to its association with early automobile travel across the California deserts, and that neither the road's pavement nor its original route would be impacted by the proposed project, the addition of five new poles at this location would not affect the resource's ability to convey its significance under Criterion A/1 as a distinctive example of early pre-Interstate highway system automobile travel through the Coachella Valley. Impacts to Varner Road at this location would be less than significant.

The proposed Mirage-Santa Rosa 115 kV subtransmission line would also cross Varner Road just north of I-10, in the Thousand Palms area. At this location, Varner Road exists as a frontage road just north of I-10. This segment of Varner Road has not been evaluated for its eligibility for the NRHP or CRHR; however, based on the previous evaluation (Schaefer et al., 2009a), and for the purposes of this impacts analysis, this segment of Varner Road where it intersects the proposed Mirage-Santa Rosa 115kV subtransmission line alignment is assumed to be similar to the previously evaluated segment and to retain a similar level of integrity, and therefore to be eligible for listing on the NRHP and CRHR. However, the only proposed work taking place in the immediate vicinity of this segment of Varner Road would be the installation of three additional arms and insulators on an existing double-circuit TSP. No ground-disturbing activity or alteration to the resource's setting would take place, and no impact to Varner Road would occur as a result of this work.

Mitigation: None required.

Impact 4.5-2: Project construction could adversely affect the *Hoon wit ten ca va* (Garnet Hill), a Native American cultural resource. *Less than significant with mitigation* (Class II)

Hoon wit ten ca va (Garnet Hill) has been identified as a Native American cultural resource. Its known association with the history of the Cahuilla culture may qualify the hill and landscape as a Traditional Cultural Property (TCP). At present, the area can be considered an Area of Traditional Importance (ATI) pending formal evaluation. Traditional cultural significance is derived from the role a property plays in a community's historically rooted beliefs, customs, and practices. Properties may also have historic significance under Criterion A if they are associated with events, or a series of events, significant to the cultural traditions of a community. Since *Hoon wit*

ten ca va (Garnet Hill) appears eligible for listing in the NRHP and CRHR under Criterion A, it will be treated as a significant resource. Consultation with the Cahuilla Indian Tribe has been initiated and would be on going throughout the construction of the proposed Farrell-Garnet 115 kV subtransmission line.

It has not been determined how construction of the proposed Farrell-Garnet 115 kV subtransmission line would affect this resource. While it is unlikely that the site would be directly impacted by the proposed line, the resource might be *indirectly* impacted. APM CUL-1 and CUL-6 encourages communication with local Native American communities concerning this resource. However, Mitigation Measure 4.5-2 would be required to ensure that impacts to the resource would be adequately mitigated.

> **Mitigation Measure 4.5-2:** Additional consultation shall be conducted with Native American community members regarding *Hoon wit ten ca va* (Garnet Hill). An agreement document that addresses potential impacts to this resource and sets forth an agreement concerning how to minimize impacts shall be created and signed by the tribes and SCE, and shall be submitted to the CPUC as documentation that the consultation has occurred.

Significance after Mitigation: Less than Significant.

Impact 4.5-3: Project construction could adversely affect cultural resources CA-RIV-785, 33-15429, and 33-15430. *Less than Significant with Mitigation* (Class II)

Implementation of the proposed Mirage-Santa Rosa 115 kV subtransmission line could potentially impact site CA-RIV-785. This site has yielded numerous artifacts, a house floor, and a cremation burial. The proposed subtransmission line alignment directly bisects the site. Project-related construction activities associated with the installation of this subtransmission line in the vicinity of CA-RIV-785 would include:

- Installation of new light weight steel (LWS) poles 65 feet west of the existing Mirage-Tamarisk 115 kV line. The spans between poles would be approximately 185 feet.
- Smoothing and resurfacing of Vista Del Oro (which runs through site CA-RIV-785).

No new access or spur roads would be constructed, and construction equipment would be staged at the Mirage Substation. It appears that the location of the proposed Mirage-Santa Rosa 115 kV subtransmission line poles would be set such that the line would avoid impacts to CA-RIV-785 as presently recorded (Lapin, 2008). However, smoothing and resurfacing of Vista del Oro road would have the potential to impact the site.

Phase III data recovery excavations (Everson et al, 1993) conducted in 1992, included the area of potential impact for potential road grading crossing the site. However, despite the fact that much archeological work has been completed at this site, it should be treated as significant given the potential for presence of additional burials and the research potential of the site.

APM CUL-3 would require archaeological monitoring along the proposed Mirage-Santa Rosa 115 kV subtransmission line during construction activities. Because of the sensitivity of this area for Native American resources, a Native American monitor should also monitor ground-disturbing activities (Mitigation Measure 4.5-3c). Implementation of APM CUL-3 and Mitigation Measure 4.5-3a, 4.5-3b, and 4.5-3c would reduce the potential impacts to less than significant.

Construction of the proposed Mirage-Santa Rosa 115 kV subtransmission line could also impact sites 33-15429 and 33-15430. These sites may be related to site CA-RIV-785 and may be eligible for listing in the NRHP and CRHR under Criterion D/4, ability to provide information important to prehistory. Neither site, however, appears to be within the direct APE for the proposed alignment. These sites should be avoided to ensure that any adverse effects are minimized. Implementation of APM CUL-3 (Construction Monitoring) as well as Mitigation Measures 4.5-3a, 4.5-3b, and 4.5-3c would reduce potential impacts to less than significant.

Mitigation Measure 4.5-3a: Avoid and protect archaeological resources. SCE shall narrow the construction zone to avoid potentially significant archaeological resources CA-RIV-785, 33-15429, and 33-15430 if feasible. The resources shall be designated as Environmentally Sensitive Areas (ESAs) to ensure avoidance. Protective fencing or other markers shall be erected around ESAs prior to any ground disturbing activities; however, such ESAs shall not be identified specifically as cultural resources, in order to protect sensitive information and to discourage unauthorized disturbance or collection of artifacts.

Mitigation Measure 4.5-3b: Preparation of treatment plan if avoidance is not feasible. If avoidance of sites CA-RIV-785, 33-15429, and 33-15430 is not feasible, prior to issuing any grading or excavation permits and prior to any project-related ground disturbing activities, a detailed Historic Properties Treatment Plan (HPTP) shall be prepared by SCE and implemented by a qualified archaeologist. The HPTP shall include a research design and a scope of work for data recovery, in conformance with APM CUL-4, or additional treatment of potentially significant archaeological sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection in the area of direct impact, and site documentation, with the aim to target the recovery of important scientific data contained in the portion(s) of the archaeological resource(s) to be impacted by the project. As specified in APM CUL-5, a long-term management plan shall also be developed by SCE for those resources that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance.

The HPTP shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and State repositories, libraries, and interested professionals.

Mitigation Measure 4.5-3c: Due to the sensitivity of the project area for Native American resources, in addition to archaeological monitoring as specified in APM CUL-3, at least one Native American monitor shall also monitor all ground-disturbing activities along the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. Selection of monitors by SCE shall be made by agreement of the Native American groups identified by the Native American Heritage Commission as having affiliation with the project area, with documentation of such agreement submitted to the CPUC.

Significance after Mitigation: Less than Significant.

Impact 4.5-4: Project construction could adversely affect currently unknown cultural resources. ***Less than significant with mitigation*** **(Class II)**

Construction activities could encounter currently unknown cultural resources, either prehistoric or historic. Pursuant to CEQA Guidelines Section 15064.5 or CEQA Section 21083.2(g), this could cause substantial adverse changes to the significance of the resource.

APM CUL-3 would require archaeological monitoring along the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. Because of the sensitivity of this area for Native American resources, a Native American monitor would also monitor ground-disturbing activities, pursuant to Mitigation Measure 4.5-3c. Mitigation Measures 4.5-4a and 4.5-4b are also required to ensure that the APMs are effectively implemented. Implementation of Mitigation Measures 4.5-3c, 4.5-4a, and 4.5-4b would reduce this potentially significant impact to a less-than-significant level.

A 0.25-mile segment of the proposed Farrell-Garnet 115 kV subtransmission line alignment just south of I-10 was not surveyed due to access restrictions. However, per the requirements of Mitigation Measure 4.5-4c (see below), the unsurveyed portion of the project area would be surveyed prior to commencement of construction activities by a qualified archaeologist to evaluate and record any cultural resources that may be present in the area.

> **Mitigation Measure 4.5-4a:** Any accidental discovery of cultural resources during construction shall be evaluated by a qualified archaeologist. If the find is determined to be potentially significant, the archaeologist, in consultation with the CPUC and appropriate Native American group(s), shall develop a treatment plan. All work adjacent to the unanticipated discovery (estimated at 25 feet) shall cease until the qualified archaeologist has evaluated the discovery, and/or the treatment plan has been implemented.
>
> **Mitigation Measure 4.5-4b:** An archaeologist meeting the Secretary of the Interior's Professional Qualification Standards shall be retained by SCE to oversee and implement the applicant proposed measures and mitigation measures stipulated in this Environmental Impact Report.
>
> **Mitigation Measure 4.5-4c:** Prior to any ground disturbing activity, those portions of the project area not surveyed because of low visibility or lack of access shall be surveyed by a qualified archaeologist. After additional archaeological survey is carried out, the archaeologists shall evaluate any cultural resources recorded during the course of the survey for their eligibility for listing on the National Register or California Register, make recommendations for treatment of these resources if found to be significant, and make recommendations concerning archaeological monitoring during construction in the survey areas.

Significance after Mitigation: Less than Significant.

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c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact 4.5-5: The project could adversely affect unidentified paleontological resources. *Less than significant* (Class III)

Fossil remains are found in the geologic deposits (sedimentary rock formations) within which they were originally buried. A paleontologically important deposit is one that has a high probability of producing unique, scientifically important fossils. This is determined by the abundance and densities of fossil specimens and/or previously recorded fossil sites in exposures of the deposit. Therefore, the potential paleontological sensitivity of the project site can be assessed by identifying the paleontological importance of geologic deposits within the project site.

A three-tiered classification system for paleontological sensitivity, recommended by the SVP and recognized in California, is listed below:

- High sensitivity – Indicates fossils are currently observed onsite, localities are recorded within the study area, and/or the unit has a history of producing numerous significant fossil remains.

- Low sensitivity – Indicates significant fossils are not likely to be found because of a random fossil distribution pattern, extreme youth of the rock unit, and/or the method of rock formation, such as alteration by heat and pressure.

- Indeterminate sensitivity – Unknown or undetermined sensitivity indicates that the rock unit has not been sufficiently studied or lacks good exposures to warrant a definitive rating. This rating is treated initially as having a high sensitivity or potential. After study or monitoring, this unit may be placed into one of the other categories.

Based on the fossil occurrences, the Ocotillo Conglomerate, the Cabazon Fanglomerate, the older alluvium, the alluvial fan deposits, stream channel deposits, dune sand, and younger alluvium at the surface, are classified as being of low paleontological importance because of their low potential for containing scientifically important fossil remains that might be exposed by earth-moving activities.

However, the Imperial Formation and the younger alluvium at depth are classified as being of high paleontological importance because of their demonstrated high potential for containing scientifically important fossil remains that might be exposed by earth-moving activities. The Imperial Formation occurs in the Garnet Hill area and may be adversely impacted by construction activities associated with the proposed Farrell-Garnet 115 kV subtransmission line. The younger alluvium occurs at numerous locations within the study area; however, this unit is considered to be sensitive only at depths of five feet or more. The younger alluvium may be adversely impacted by construction activities within the proposed Mirage-Santa Rosa 115 kV subtransmission alignment and the proposed Devers-Coachella 220 kV Loop-In alignment.

Earth-moving activities associated with construction in areas where the Imperial Formation or younger alluvium are exposed might result in the disturbance or loss of paleontological resources, including an undetermined number of unrecorded fossil sites and scientifically important fossil specimens and associated fossil specimen data. The disturbance or loss of such resources would be a significant impact. However, implementation of APMs PA-1 through PA-6 would ensure that impacts would be less than significant.

Mitigation: None required

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d) Disturb any human remains, including those interred outside of formal cemeteries.

Impact 4.5-6: Project construction could result in damage to previously unidentified human remains. *Less than significant* (Class III)

Damage could occur to previously undiscovered areas of human remains, including those interred outside of formal cemeteries, during grading and other ground disturbing construction related activities. However, APM CUL- 2 (Discovery of Human Remains) would require that if human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the County coroner makes the necessary findings as to origin of the remains, pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5. If the remains are determined to be Native American, then the NAHC would be notified within 24 hours, as required by Public Resources Code 5097. The NAHC would notify the designated Most Likely Descendants, who would provide recommendations for the treatment of the remains within 24 hours. The NAHC would mediate any disputes regarding the treatment of remains. Therefore, impacts to previously unidentified human remains would be reduced to less than significant.

Mitigation: None required.

4.5.5 Cumulative Impacts

There are over 100 proposed, approved, and in-progress projects within 0.5 mile of the Proposed Project and alternative alignments and sites. Section 4.5.4 includes several mitigation measures to reduce potential impacts to cultural resources during construction of the Proposed Project (i.e., accidental damage or destruction of previously unknown archaeological sites) to less-than-significant levels. The study area contains significant archaeological and historical records that, in many cases, have not been well documented or recorded. Thus, there is the potential for future development projects in the vicinity to disturb landscapes that may contain known or unknown cultural resources. However, future projects with potentially significant impacts to cultural resources would be required to comply with federal, State, and local regulations and ordinances

protecting cultural resources through implementation of similar mitigation measures during construction. Therefore, the potential construction impacts of the Proposed Project in combination with other projects in the area would not contribute to a cumulatively significant impact on cultural or paleontological resources. With the mitigation measures identified above, cumulative impacts would be less than significant (Class II).

4.5.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) a new transmission line and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

The construction of a new transmission line and/or a power plant under the No Project scenario would likely result in potential impacts similar to what would occur under the Proposed Project; however, because historical, archaeological, and Native American resources tend to be highly discrete and localized, impacts to historical resources may be avoided by construction-related mitigation measures. The siting and placement of the transmission line and the power plant would determine whether impacts to known or unknown historical, archaeological, and Native American resources would result from project construction and operations. At a minimum, accidental find mitigation would be standard for most any project where ground disturbance would occur. Further mitigation may be necessary if buildings or historical settings are potentially affected by the No Project Alternative.

The construction of a new transmission line and/or a power plant under the No Project scenario would likely result in potential impacts similar to what would occur under the Proposed Project; however, because unique paleontological resources or sites and unique geologic features tend to be highly discrete and localized, impacts may be avoided by construction-related mitigation measures. The siting and placement of the transmission line and/or the power plant would determine whether impacts to known or unknown paleontological resources or unique geologic features would result from project operations. At a minimum, accidental find mitigation would be standard for most any project where ground disturbance would occur.

The potential for impacts to human remains under the No Project Alternative would be similar to those identified under the Proposed Project. In most cases, the existence of human remains or burials is unknown unless a previously identified archaeological site that yielded burials exists within a project area or vicinity. Given the unknown location of construction activity that would occur under the No Project Alternative, potential impacts to human remains cannot be assessed.

At a minimum, however, a procedural mitigation for accidental discoveries of human remains would be standard for most any project where ground disturbance would occur.

Alternative 2

The Alternative 2 alignment would extend through significant cultural resource, 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

Similar to the proposed Farrell-Garnet 115 kV alignment, the Alternative 2 alignment could potentially impact previously recorded resource, *Hoon wit ten ca va* (Garnet Hill). This resource appears significant to the oral histories of the Cahuilla Indian Tribe and may be considered a TCP. Construction of Alternative 2 could result in impacts to *Hoon wit ten ca va* (Garnet Hill). Potential impacts to the resource would be mitigated to a less-than-significant level through the implementation of APM CUL-1 and CUL-6 as well as Mitigation Measure 4.5-2, described above for the proposed Farrell-Garnet 115 kV subtransmission line (Class II).

As with the proposed Farrell-Garnet 115 kV alignment, impacts associated with Alternative 2 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measures 4.5-4a, 4.5-4b and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with Alternative 2 would be essentially the same as those that would result under construction of the proposed Farrell-Garnet subtransmission line. With implementation of APMs PA-1 through PA-6, impacts would be less than significant (Class III).

The potential impacts to human remains that would be associated with Alternative 2 would be essentially the same as those that would result during construction of the proposed Farrell-Garnet subtransmission line. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

Alternative 3

The Alternative 3 alignment would extend through significant cultural resource, 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

Similar to the proposed Farrell-Garnet 115 kV alignment, the Alternative 3 alignment could potentially impact one previously recorded resource, *Hoon wit ten ca va* (Garnet Hill). This resource appears significant to the oral histories of the Cahuilla Indian Tribe and may be

considered a TCP. Construction of Alternative 3 could result in impacts to *Hoon wit ten ca va* (Garnet Hill). Potential impacts to the resource would be mitigated to a less-than-significant level through the implementation of APMs CUL-1 and CUL-6 as well as Mitigation Measure 4.5-2 (Class II).

As with the proposed Farrell-Garnet 115 kV subtransmission line, construction impacts associated with Alternative 3 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measures 4.5-4a, 4.5-4b, and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with Alternative 3 would be essentially the same as those that would result under construction the proposed Farrell-Garnet 115 kV subtransmission line. With implementation of APMs PA-1 through PA-6, impacts would be less than significant (Class III).

The potential impact to human remains that would be associated with construction of Alternative 3 would be essentially the same as those that would result during construction of the proposed Farrell-Garnet 115 kV subtransmission line. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

Alternative 5

Impact 4.5-ALT5-1: Construction of Alternative 5 could adversely affect historic site 33-8408, Varner Road, a segment of which has been recommended eligible for the National Register of Historic Places and the California Register of Historic Resources. *Less than significant* (Class III)

A 4.8-mile segment of Varner Road stretching from the intersection of Varner Road and Date Palm Drive west towards Garnet Hill was previously evaluated, as part of the 2009 cultural resources studies conducted for the Alternatives 6 and 7 alignments, as eligible for listing in the NRHP and CRHR under Criterion A/1, association with events that have made a significant contribution to the broad patterns of history, as a "distinctive and well-preserved element of early automobile travel through the Coachella and Chuckwalla valleys that preceded the Interstate highway system" (Schaefer et al., 2009a:39). The evaluation noted that the segment appeared to be part of the original 1915 route, and that the pavement appeared to be original, indicating that the road retained much of its integrity.

Approximately 1.3 miles of the Alternative 5 underground alignment would run along Varner Road (33-8408). No formal evaluation of the 1.3-mile segment of Varner Road that intersects the Alternative 5 alignment has been conducted; however, based on the previous evaluation (Schaefer et al., 2009a), and for the purposes of this impacts analysis, this 1.3-mile segment of Varner Road that would be impacted by implementation of Alternative alignment 5 is assumed to be similar to the previously evaluated segment, and therefore to be eligible for listing on the NRHP and CRHR. While the pavement on this segment is not original, it is assumed that the route of Varner

Road where it traverses the project area is original in intact. Therefore, Varner Road is considered a historical resource for the purposes of CEQA.

Construction related to Alternative 5 would involve trenching within the Varner Road Right-of-Way for the installation of the underground subtransmission line. Varner Road is considered eligible for the NRHP and CRHR under Criterion A/1 due to its association with early automobile travel across the California deserts. The previous evaluation of Varner Road as a significant historic resource (Schaefer et al., 2009a) was based largely on the integrity of the original pavement, in addition to the road's association with early automobile travel. However, Varner Road where it intersects Alternative 5 has been recently repaved (County of Riverside, 2009). Therefore, the pavement in this segment is not original and proposed trenching related to Alternative 5 would alter pavement that has already been modified. In addition, implementation of Alternative 5 would not impact or modify the route of Varner Road or impact the use of the road to carry automobile traffic. Therefore, impacts to Varner Road would be less than significant.

Mitigation: None required.

The Alternative 5 alignment would extend through significant cultural resource 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

As with the proposed Mirage-Santa Rosa 115 kV subtransmission line, impacts associated with construction of Alternative 5 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measures 4.5-4a, 4.5-4b and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with construction of Alternative 5 would be essentially the same as those that would result under the proposed Mirage-Santa Rosa 115 kV subtransmission line; impacts would be less than significant with implementation of APMs PA-1 through PA-6 (Class III).

The potential impact to human remains that would be associated with construction of Alternative 5 would be essentially the same as those that would result under the proposed Mirage-Santa Rosa 115 kV subtransmission line. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

Alternative 6

The Alternative 6 alignment would extend through one significant cultural resource, 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

Portions of the Alternative 6 alignment were not subject to systematic archaeological survey due to lack of access. These segments will be surveyed if this alternative alignment is selected, per Mitigation Measure 4.5-4c. As with the proposed Farrell-Garnet 115 kV alignment, impacts associated with Alternative 6 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measures 4.5-4a, 4.5-4b, and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with Alternative 6 would be similar to those that would result under the proposed Farrell-Garnet 115 kV subtransmission line, with the exception that Alternative 6 would not impact the high-sensitivity Imperial Formation. Impacts would be less than significant with implementation of APMs PA-1 through PA-6 (Class III).

The potential impact to human remains that would be associated with Alternative 6 would be essentially the same as those that would result under the proposed Farrell-Garnet 115 kV subtransmission line. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

Alternative 7

The Alternative 7 alignment would extend through one significant cultural resource, 33-9498 (Southern Pacific/Union Pacific Railroad). As with the Proposed Project, the Southern Pacific Railroad right-of-way would be avoided during project construction and there would be no impacts to this resource.

Portions of the Alternative 7 alignment were not subject to systematic archaeological survey due to lack of access. These segments will be surveyed if this alternative alignment is selected, per Mitigation Measure 4.5-4c. As with the proposed Farrell-Garnet 115 kV subtransmission line, impacts associated with Alternative 7 related to undiscovered cultural resources would be less than significant with implementation of Mitigation Measure 4.5-4a, 4.5-4b and 4.5-4c (Class II).

Impacts to paleontological resources that would be associated with Alternative 7 would be similar to those that would result under the proposed Farrell-Garnet 115 kV subtransmission line, with the exception that Alternative 7 would not impact the high-sensitivity Imperial Formation. Impacts would be less than significant with implementation of APMs PA-1 through PA-6 (Class III).

The potential impact to human remains that would be associated with construction of Alternative 7 would be essentially the same as those that would result under construction of the proposed Farrell-Garnet 115 kV subtransmission. Therefore, with implementation of APM CUL-2, impacts would be less than significant (Class III).

References – Cultural Resources

Bean, Lowell J, 1978. Cahuilla. In *California*, edited by R.F. Heizer, pp. 575-587. Handbook of North American Indians, Vol. 8, W.C. Sturtevant, general editor. Smithsonian Institution, Washington D.C.

California Division of Mines and Geology (CDMG), 1986. Geologic map of California, Salton Sea Sheet.

City of Cathedral City, 2002. City of Cathedral City General Plan. Adopted July 31, 2002.

City of Indian Wells, 1996. City of Indian Wells General Plan. Adopted February 1, 1996.

City of Palm Desert, 2004. City of Palm Desert General Plan. Adopted March 2004

City of Palm Springs, 2007. City of Palm Springs General Plan. Adopted October 2007

City of Rancho Mirage, 2005. City of Rancho Mirage General Plan. Adopted November 2005.

County of Riverside, 2003. Riverside County General Plan. Adopted October 7, 2003

County of Riverside, 2009. 1000 Palms Beautification Project. http://district4.co.riverside.ca.us/web/projects/thousandpalmsprojects.html, accessed November 23, 2009.

Dibblee, T.W., Jr., 2004. Geologic map of the Palm Springs Quadrangle, Riverside County, California, *Dibblee Geology Center Map DF-123*.

Eckhardt, William T., 2006. The Anza Trail into Alta California: Puerto Real de San Carlos and the Cahuilla Village of Paukī. Paper presented to the VII International Meetings Balances and Perspectives, Instituto National de Antropología y Historia. Mexico D.F.

Eckhardt, William T. and Stacey C. Jordan, 2007a. *Cultural Resources Inventory of the Proposed Devers to Mirage 115 kV Subtransmission Line Project, Riverside County, California*. Prepared by Mooney, Jones and Stokes for Southern California Edison Company.

Eckhardt, William T. and Stacey C. Jordan, 2007b. *Cultural Resources Inventory of the Proposed Farrell-Garnett 115 kV Transmission Line Across BLM Lands, Palm Springs – South Coast Field Office, Riverside County, California*. Prepared by Mooney, Jones and Stokes for Southern California Edison Company.

Eckhardt, William T. and Stacey C. Jordan, 2007c. Cultural Resources Augment to the Cultural Resources Inventory of The Proposed Devers to Mirage 115kv Subtransmission Line Project, Riverside County, California. Prepared by Mooney, Jones and Stokes for Southern California Edison Company.

Everson, Dicken, Diann L M Taylor, Ayse Taskiran, and John Goodman II, 1993. *Cultural Resources Report: Phase III Archaeological Excavations at Site CA-RIV-785, Located on Tentative Tract 27135, Thousand Palms Area of Riverside County, Californi*a. Prepared for Shadowridge Creek Country Club.

Lander, E. Bruce, 2007. *Paleontologic resource inventory and impact assessment in Support of the Southern California Edison Company's Devers-Mirage 115 kV System Split project, Riverside County, California.* Prepared by Paleo Environmental Associates, Inc., for Southern California Edison Company.

Lapin, Philippe, personal communication, letter to Mitch Marken, June 13, 2008

Powell, C.L., Jr., 1995. *Paleontology and significance of the Imperial Formation at Garnet Hill, Riverside County, California.* United States Geological Service Open File Report 95-489:1-10.

Proctor, R.J., 1968. Geology of the Desert Hot Springs – Upper Coachella Valley Area, California. California *Division of Mines and Geology Special Report* 94:1-50.

Resources Agency of California (RAC), 1998. Colorado Desert. In *Preserving California's Natural Heritage: A Bioregional Guide to Land and Water Conservation*. http://ceres.ca.gov/planning/conservation_guidebook/Bioregions.html

Sawyer, John O., and Todd Keeler-Wolf, 1995. *A Manual of California Vegetation.* California Native Plant Society, Sacramento.

Schaefer, Jerry, and Don Laylander. "The Colorado Desert", in *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp 247-258, 2007.

Schaefer, Jerry, Don Laylander, and Josh Tansey. Cultural Resources Study for the Devers-Mirage 115 kV Transmission Line Upgrade, Alternatives 1B, 6 and 7, on Private Lands, Coachella Valley, Riverside County, California, prepared for Southern California Edison Company, prepared by ASM Affiliates, September 2009a.

Schaefer, Jerry, Don Laylander, and Josh Tansey. Cultural Resources Study for the Devers-Mirage 115 kV Transmission Line Upgrade, Alternatives 1B, 6 and 7, on BLM Lands, Coachella Valley, Riverside County, California, prepared for Southern California Edison Company, prepared by ASM Affiliates, September 2009b.

Sutton, Mark Q., Mark E. Basgall, Jill K. Gardner, and Mark W. Allen, "Advances in understanding Mojave Desert Prehistory", in *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp 229-245, 2007.

Thomas, H.W., and L.G. Barnes, 1993. Discoveries of fossil whales in the Imperial Formation, Riverside County, California, and the northern extent of the proto-gulf of California. In R.E. Reynolds and J. Reynolds, eds., *Ashes, Faults, and Basins*. San Bernardino County Museum Association Special Publication 93(1):34-36.

U.S. Department of the Interior, National Park Service, 1995. *National Register Bulletin: How to Apply the National Register Criteria for Evaluation.* National Park Service, Washington, DC.

U.S. Department of the Interior, 2008. *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (As Amended and Annotated).* Website (http://www.nps.gov/history/local-law/arch_stnds_0.htm) accessed in July, 2008.

Warren, C. N., 1984. "The Desert Region", In *California Archaeology*, Coyote Press, Salinas, California, 2004, reprinted from 1984.

WESCO (Western Ecological Services Company), 1987. *Southern California Edison Company's Devers-Palo Verde #2 500 kV Transmission Line Project Draft Environmental Impact Report (EIR).* Vol. 1. Prepared for California Public Utilities Commission.

4.6 Geology and Soils

This section describes existing conditions in the study area and evaluates the potential for the Proposed Project and alternatives to result in significant impacts related to exposing people or structures to unfavorable geologic hazards, soils, and/or seismic conditions. Following a description of the regulatory framework, project components are evaluated for their potential to create or be affected by significant impacts.

4.6.1 Setting

Regional Geology

The study area is located in the northwesterly, or upper, portion of the Coachella Valley in what is known as the Salton Trough. Extensional forces between the American and Pacific tectonic plates have created a large structural depression, the Salton Trough, which extends from the Palm Springs area to the Gulf of California. Southeast of the Coachella Valley, the Salton Trough is occupied by the Salton Sea and the Imperial Valley. The southerly portion of the Salton Sea is an area of high heat flow and several geothermal power plants derive their energy from the hot subsurface brines.

The Salton Trough region is part of the geologic region known as the Colorado Desert geomorphic province.[1] The Colorado Desert encompasses an area that extends from the Transverse Ranges province, south to the Mexican border, and from the Peninsular Ranges province on the west, east to the Colorado River (Norris and Webb, 1990). The province varies in width from 30 to 120 miles, and is dominated by the northwesterly trending Salton Trough.

The Coachella Valley, situated between the San Jacinto-Santa Rosa Mountains on the west and the Little San Bernardino Mountains on the east, is the northwestern extension of the Salton Trough. In general, relatively recent alluvial and lacustrine sediments underlie the Coachella Valley. To the west, the Santa Rosa Mountains consist of Jurassic-age metavolcanic and metasedimentary rocks, and Cretaceous-age igneous rocks of the southern California Batholith. To the east, the Little San Bernardino Mountains generally consist of Precambrian-age metamorphic and metasedimentary rocks, and Cretaceous-age granitic rocks.

Faults

The Colorado Desert is traversed by several major active faults. The Whittier-Elsinore and San Jacinto faults are major active fault systems located southwest of the study area and the San Andreas Fault system is located north of the study area. Major seismic activity is associated with these and other faults that have the potential for generating strong ground motion in the region.

[1] A geomorphic province is an area that possesses similar bedrock, structure, history, and age. California has 11 geomorphic provinces.

The closest known active faults to the study area are associated with the San Andreas fault system, with the northwesterly trending Banning and Coachella segments of the fault system mapped in the north, just north of Interstate 10 (I-10). The northwesterly trending Garnet Hill fault is mapped north of Palm Springs, about a half mile south of I-10. The Garnet Hill fault is mapped as a buried fault and is based on a gravity anomaly survey of the Coachella Valley by a major oil company (Proctor, 1968). The Garnet Hill fault is not mapped as offsetting Holocene-age materials (Jennings, 1994) and, therefore, does not display evidence of being active (Hart et al., 1979). Although the California Division of Mines and Geology (California Geological Survey) has not designated it as an active fault, the Garnet Hill fault can act as a plane of weakness and move in response to an earthquake on another nearby fault. Ground fractures associated with the 1986 North Palm Springs earthquake were reported along the trace of the Garnet Hill fault and indicate that a near-surface response of weak surfaces occurred at depth (City of Cathedral City, 2002). The north-south trending Palm Canyon fault is mapped as trending towards Palm Springs from the south, but the fault is not considered active by State maps (Jennings, 1994).

Soils

Soils result from chemical, physical, and biological weathering of sediments and rocks exposed at or near the earth's surface. Soil can contain both mineral and organic materials. The majority of the Proposed Project, including the subtransmission and transmission line upgrades, and the 115 kV reconfigurations, would be located on sandy alluvial soils. The majority of the existing substation locations are within areas that are already developed. The landforms on which these soils are present include primarily alluvial fans, which are composed of gravelly alluvium derived from igneous rock (USDA, 2008).

The proposed Devers-Coachella Valley 220 kV Loop-In would cross Carsitas gravelly sand and Carsitas cobbly sand. Carsitas soils are excessively drained, with no frequency of flooding or ponding. These soils can be found around 800 feet in elevation, at a zero to nine percent slope. The soil profiles are usually found within the first 10 inches, with gravelly sand from 10 to 60 inches. The Carsitas cobbly sand is an alluvium derived from granite that is excessively drained, with a very low water capacity (about 3.0 inches). Carsitas fine sand has nearly the same composition as the cobbly sand, except it is excessively drained, with low water capacity (about 3.1 inches). Carsitas gravelly sand has a moderate potential for erosion, but mostly on steeper slopes. The westerly and southerly portions of the Alternative 5 alignment also cross over the well-drained Coachella fine sand on zero to two percent slopes. The parent material is alluvium derived from igneous rock. The landforms on which these soils are present include primarily alluvial fans (USDA, 2008).

The proposed Farrell-Garnet 115 kV subtransmission line alignment, and the alignments for Alternatives 2, 3, 6 and 7 would cross Carsitas cobbly sand, Carsitas fine sand, Carsitas gravelly sand, and riverwash, as well as alluvium borrow pits associated with mineral excavation. Additionally, the Alternative 6 and 7 alignments cross Coachella fine sand and Myoma fine sand.

Myoma fine sand develops on zero to five percent slopes, is somewhat excessively drained, and develops from wind blown sandy alluvium.

The proposed substransmission line pole reconfiguration on the corner of Date Palm Drive and Varner Road would cross Carsitas gravelly sand and Myoma fine sand. The pole reconfiguration on the corner of Bob Hope Drive and Dinah Shore Drive and the pole replacement at the corner of Gerald Ford Drive and Portola Avenue would be located on Myoma fine sand.

The Garnet, Farrell, and Mirage substations are located on Carsitas gravelly sandy soil.

Local Geology, Drainage, and Groundwater

The majority of the study area is underlain by relatively recent (Holocene-age) surficial deposits with somewhat older Quaternary deposits mapped in limited areas, especially in the northern end of the study area. The surficial deposits are mapped as alluvium (i.e., sediments laid down by flowing water) and eolian (i.e., wind blown) deposits. The surficial and Quaternary deposits are primarily granular (e.g., sand, silt, and gravel) in nature. Other surficial soils present include fill soils associated with existing manmade improvements, such as roadways, utility trench backfills, etc.

With elevations ranging from roughly 400 feet above mean sea level (msl) near Palm Springs to roughly 200 feet above msl near Palm Desert and Thousand Palms, drainage in the study area is generally to the southeast and ultimately towards the Salton Sea, which is some 220 feet below msl. Likewise, groundwater gradients can be expected to fall to the southeast, with flow ultimately towards the Salton Sea. In general, due to the elevation and arid climate of the study area, shallow groundwater levels do not exist, and are measured in the Palm Springs areas at depths in excess of 100 feet.

Geologic Hazards

Seismic Activity

The two most recent fault activities recorded in Palm Springs area include the 1986 North Palm Springs earthquake and the 1992 Landers earthquake. The 1986 quake registered a magnitude of 5.6 and caused minor ground rupturing along the Banning, Mission Creek, and Garnet Hill faults, but these cracks were due to shaking, not surface rupture. The 1992 quake resulted in landslides triggered by long ground-shaking and also caused fractures along the Garnet Hill fault (City of Palm Springs, 2007).

The study area is in a region of high seismic activity as is much of southern California. The study area could be subjected to strong ground shaking due to an earthquake on one of the regions active faults. The closest known active faults are those associated with the southern end of the nearby Coachella Segment of the San Andreas fault system, which could generate a moment magnitude of up to 7.2 (USGS/CGS, 2002).

Liquefaction

Liquefaction of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Research and historical data indicate that loose granular soils and non-plastic silts that are saturated by relatively shallow groundwater (generally less than 50 feet) are susceptible to liquefaction. Liquefaction causes soil to lose strength and "liquefy," triggering structural distress or ground failure due to the dynamic settlement of the ground or a loss of strength in the soils underneath structures.

Subsidence

Land subsidence associated with groundwater-level declines has been recognized as a potential problem in Coachella Valley (Sneed, et al., 2002). Since the early 1920s, groundwater has been a major source of agricultural, municipal, and domestic supply in the valley. Pumping of groundwater resulted in water-level declines as large as 50 feet through the late 1940s. In 1949, the importation of Colorado River water to the lower Coachella Valley began, resulting in a reduction in groundwater pumping and a recovery of water levels during the 1950s through the 1970s. Since the late 1970s, demand for water in the valley has exceeded deliveries of imported surface water, resulting in increased pumping and associated groundwater-level declines and, consequently, an increase in the potential for land subsidence caused by aquifer-system compaction (Sneed, et al., 2002).

Collapsible Soils

Soil collapse, or hydro-consolidation, occurs when soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. This phenomenon typically occurs in recently deposited Holocene soils in a dry or semiarid environment, including eolian sands and alluvial fan and mudflow sediments deposited during flash floods. The combination of weight from a building or other structure, and an increase in surface water infiltration (such as from irrigation or a rise in the groundwater table) can initiate settlement and cause structural foundations and walls to crack (City of Cathedral City, 2002).

Expansive Soils

Expansive soils contain significant amounts of clay particles that have the ability to give up water (shrink) or take on water (swell). When these soils swell, the change in volume can exert significant pressures on loads that are placed on them, such as buildings, and can result in structural distress and/or damage (City of Cathedral City, 2002).

Landslides

Due to the relatively low relief, there is virtually no potential for naturally occurring landslides to occur in the vicinity of the Proposed Project and alternative alignments and sites, with the exception of the Alternative 2 alignment. The alignment for Alternative 2 would traverse over the eastern portion of Garnet Hill, which is a low relief hill in a setting generally not prone to landslides. Although surficial sloughing is possible, there is no evidence that deep-seated land

slides have occurred on Garnet Hill. Standard geotechnical engineering practices can mitigate/avoid such features should they exist.

Regulatory Context

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zones Act), signed into law in December 1972, requires the delineation of zones along active faults in California. The main purpose of the Alquist-Priolo Act is to prevent the construction of buildings to be used for human occupancy (i.e., 2,000 person hours or more per year) on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. Cities and counties must regulate certain development projects within the zones, which includes withholding permits until geologic investigations demonstrate that development sites are not threatened by future ground surface displacement (Hart and Bryant, 1997). Surface fault rupture is not necessarily restricted to the area within a Fault Rupture Hazard Zone, as designated under the Alquist-Priolo Act.

Seismic Hazards Mapping Act

The State Department of Conservation, California Geological Survey (CGS), provides guidance with regard to seismic hazards. Under the CGS Seismic Hazards Mapping Act, seismic hazard zones are to be identified and mapped to assist local governments for planning and development purposes. The intent of the Act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other types of ground failure, and other hazards caused by earthquakes. CDMG Special Publication 117 Guidelines for Evaluating and Mitigating Seismic Hazards in California (1997) provides guidance for evaluation and mitigation of earthquake-related hazards for projects within designated zones of required investigations.

Design Standards

Building codes provide specific standards for design and construction of buildings and structures. On January 1, 2008, California officially adopted the 2007 California Building Code (CBC). The purpose of the CBC is to provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use, occupancy, location, and maintenance of all buildings and structures within its jurisdiction. The CBC provides criteria for defining expansive soils.

Riverside County

Policies within the Riverside County General Plan Safety Element that may be applicable to the Proposed Project and alternatives include (County of Riverside, 2003):

> *Policy S 2.1*: Minimize fault rupture hazards through enforcement of Alquist-Priolo Earthquake Fault Zoning Act provisions and the following policies:

a. Require geologic studies or analyses for critical structures, and lifeline, high-occupancy, schools, and high-risk structures, within 0.5 miles of all Quaternary to historic faults shown on the Earthquake Fault Studies Zones map.

b. Require geologic trenching studies within all designated Earthquake Fault Studies Zones, unless adequate evidence, as determined and accepted by the County Engineering Geologist, is presented. The County may require geologic trenching of non-zoned faults for especially critical or vulnerable structures or lifelines.

c. Require that lifelines be designed to resist, without failure, their crossing of a fault, should fault rupture occur.

d. Support efforts by the California Department of Conservation, Division of Mining and Geology to develop geologic and engineering solutions in areas of disseminated ground deformation due to faulting, in those areas where a through-going fault cannot be reliably located.

e. Encourage and support efforts by the geologic research community to define better the locations and risks of County faults. Such efforts could include data sharing and database development with regional entities, other local governments, private organizations, utility agencies or companies, and local universities.

Policy S 2.2: Require geological and geotechnical investigations in areas with potential for earthquake-induced liquefaction, landsliding or settlement as part of the environmental and development review process, for any structure proposed for human occupancy, and any structure whose damage would cause harm. (AI 81)

Policy S 2.3: Require that a State-licensed professional investigate the potential for liquefaction in areas designated as underlain by "Susceptible Sediments" and "Shallow Ground Water" for all general construction projects. Pseudo-static stability analyses requires detailed geotechnical investigations, including subsurface soil sampling and laboratory testing.

Policy S 2.4: Require that a State-licensed professional investigate the potential for liquefaction in areas identified as underlain by "Susceptible Sediments" for all proposed critical facilities projects.

Policy S 2.5: Require that engineered slopes be designed to resist seismically-induced failure. For lower-risk projects, slope design could be based on pseudo-static stability analyses using soil engineering parameters that are established on a site-specific basis. For higher-risk projects, the stability analyses should factor in the intensity of expected ground shaking, using a Newmark-type deformation analysis.

Policy S 2.6: Require that cut and fill transition lots be over-excavated to mitigate the potential of seismically-induced differential settlement.

Policy S 2.7: Require a 100% maximum variation of fill depths beneath structures to mitigate the potential of seismically-induced differential settlement.

Policy S 2.8: Encourage research into new foundation design systems that better resist the County's climatic, geotechnical, and geological conditions.

Policy S 3.1: Require the following in landslide potential hazard management zones, or when deemed necessary by the California Environmental Quality Act:

a. Preliminary geotechnical and geologic investigations.

b. Evaluations of site stability, including any possible impact on adjacent properties, before final project design is approved.

c. Consultant reports, investigations, and design recommendations required for grading permits, building permits, and subdivision applications be prepared by State-licensed professionals.

Policy S 3.2: Require that stabilized landslides be provided with redundant drainage systems. Provisions for the maintenance of subdrains must be designed into the system.

Policy S 3.3: Before issuance of building permits, require certification regarding the stability of the site against adverse effects of rain, earthquakes, and subsidence.

Policy S 3.4: Require adequate mitigation of potential impacts from erosion, slope instability, or other hazardous slope conditions, or from loss of aesthetic resources for development occurring on slope and hillside areas.

Policy S 3.5: During permit review, identify and encourage mitigation of onsite and offsite slope instability, debris flow, and erosion hazards on lots undergoing substantial improvements.

Policy S 3.6: Require grading plans, environmental assessments, engineering and geologic technical reports, irrigation and landscaping plans, including ecological restoration and revegetation plans, as appropriate, in order to assure the adequate demonstration of a project's ability to mitigate the potential impacts of slope and erosion hazards and loss of native vegetation.

Policy S 3.7: Support mitigation on existing public and private property located on unstable hillside areas, especially slopes with recurring failures where County property or public right-of-way is threatened from slope instability, or where considered appropriate and urgent by the County Engineer, Fire, or Sheriff Department.

Policy S 3.8: Require geotechnical studies within documented subsidence zones, as well as zones that may be susceptible to subsidence, as identified in Figure S-7 and the Technical Background Report, prior to the issuance of development permits. Within the documented subsidence zones of the Coachella, San Jacinto, and Elsinore valleys, the studies must address the potential for reactivation of these zones, consider the potential impact on the project, and provide adequate and acceptable mitigation measures.

City of Palm Springs General Plan

Policies within the City of Palm Springs General Plan Safety Element that may be applicable to the Proposed Project and alternatives include (City of Palm Springs, 2007):

Policy SA1.1 Minimize the risk to life and property through the identification of potentially hazardous areas, adherence to proper construction design criteria, and provision of hazards information to all residents and business owners.

Policy SA1.2 Require geologic and geotechnical investigations in areas of potential seismic hazards such as fault rupture, seismic shaking, liquefaction, and slope failure, as part of the environmental and/or development review process for all structures, and enforce structural

setbacks from faults that are identified through those investigations in accordance with the Seismic Hazards Mapping Act. Require subsurface investigations of the Garnet Hill fault if and as that area of northern Palm Springs is developed.

Policy SA1.4 Enforce the requirements of the California Seismic Hazards Mapping and Alquist-Priolo Earthquake Fault Zoning Acts when siting, evaluating, and constructing new projects within the City.

Policy SA1.8 Require that lifelines crossing a fault be designed to resist damage in the occurrence of fault rupture.

Policy SA1.14 Include liquefaction-mitigation measures in the construction of bridges, roadways, major utility lines, or park improvements in potentially liquefiable areas, such as the Whitewater riverbed or at the mouths of canyons.

City of Cathedral City

Policies within the City of Cathedral City General Plan Geotechnical Element that may be applicable to the Proposed Project and alternatives include (City of Cathedral City, 2002):

Policy 1: All new development shall continue to be constructed, at a minimum, in accordance with the seismic design requirements contained in the most recently adopted edition of the Uniform Building Code/International Building Code.

Policy 5: Where development is proposed in areas identified as being subject to geotechnical hazards (including, but not limited to slope instability, soil collapse, liquefaction and seismically induced settlement), the City shall require the preparation of site-specific geotechnical investigations by the applicant prior to development. All such studies shall include mitigation measures that reduce associated hazards to insignificant levels.

Policy 6: All grading, earthwork, and construction activities shall be in accordance with applicable fugitive dust control ordinances and regulations, including those established by the City, CVAG, SCAQMD, and other appropriate agencies.

Other Desert Cities

Policies within the City of Rancho Mirage, City of Palm Desert, and City of Indian Wells General Plan Safety or Geotechnical Elements are not directly applicable to the Proposed Project and alternatives (City of Palm Desert, 2004; City of Rancho Mirage, 2006; and City of Indian Wells, 1996).

4.6.2 Significance Criteria

The following significance criteria are adapted from and are consistent with the CEQA Guidelines, Appendix G, Environmental Checklist. In accordance with the CEQA guidelines, the Proposed Project would result in a significant impact with regard to geology, soils, and seismicity if it would:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist (CGS) for the area or based on other substantial evidence of a known fault;
- Strong seismic ground shaking;
- Seismic-related ground failure, including liquefaction; or
- Landslides.

b) Result in substantial soil erosion or the loss of topsoil.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

d) Be located on expansive soil, which is defined in the 2007 California Building Code, creating substantial risks to life or property.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste - water disposal systems where sewers are not available for the disposal of wastewater.

4.6.3 Applicant Proposed Measures

SCE has committed to implementing the following applicant proposed measures (APM) with regard to geological and soil resources:

APM GEO-1. Seismic Design for Ground Shaking. A geotechnical investigation of site soils and geologic conditions, coupled with engineering design, would identify the hazards and develop recommendations to support appropriate seismic designs to mitigate the effects of ground shaking. Specific requirements for seismic design would be based on the IEEE 693 "Recommended Practices for Seismic Design of Substations."

APM GEO-2. Subsurface Trenching. Where appropriate, subsurface trenching along active fault traces would be required to ensure tower foundations are not placed on, or immediately adjacent to, these features. In addition, tower locations would be selected to accommodate anticipated fault offset, and minimize excessive tension in lines, should a fault movement occur.

4.6.4 Impacts and Mitigation Measures

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides.

Due to the relatively low relief, there is virtually no potential for naturally occurring landslides to occur in the vicinity of the Proposed Project components. Therefore, there would no impact related to landslides (No Impact).

Impact 4.6-1: Ground surface rupture of an active fault could damage the Proposed Project which, in turn, could pose a hazard to nearby structures or people. *Less than significant* (Class III)

There are no active earthquake faults that are recognized or zoned by the State of California in the immediate vicinity of the Proposed Project alignments and sites. The only fault that would intersect any of the Proposed Project components is the Garnet Hill fault, which is mapped as buried with a location that is postulated across the proposed Farrell-Garnet alignment. Whereas seismic activity is not limited to active faults, ground rupture is typically associated with active faults. However, ground fractures associated with the 1986 North Palm Springs earthquake were reported along the trace of the Garnet Hill fault, but the fractures were a result of ground shaking rather than fault rupture. In addition, pursuant to APM GEO-2, tower locations (in the case of the proposed Farrell-Garnet subtransmission line, *pole* locations) would be selected to accommodate anticipated fault offset, and minimize excessive tension in lines, should a fault movement occur. Therefore, based on the location of the proposed components and the active faults in the region, the potential for surface fault rupture to affect the Proposed Project would be minimal. Potential ground surface rupture impacts are considered to be less than significant.

Mitigation: None required.

Impact 4.6-2: Strong seismic ground shaking could cause damage to Proposed Project structures which, in turn, could pose a risk of loss, injury, or death. *Less than significant* (Class III)

As discussed in the Setting section above, significant ground shaking in the vicinity of the Proposed Project could occur due to earthquakes caused by the regions active faults. The San Andreas fault system is located approximately one mile northeast of the project area. Ground shaking due to seismic events along this fault system could have strong intensities. However, APM GEO-1 requires that a geotechnical investigation of site soils and geologic conditions be conducted, coupled with an engineering design, that would identify geotechnical hazards and develop recommendations to support appropriate seismic designs to mitigate the effects of ground shaking. Specific requirements for seismic design would be based on the Institute of Electrical and Electronics Engineers (IEEE) 693 “Recommended Practices for Seismic Design of Substations.”

Strong ground shaking could cause wires to swing and contact each other causing short-circuiting. However, observations from past earthquakes have shown that overhead transmission lines can typically accommodate strong ground shaking. In fact, the required separation distance to reduce the potential for wires to touch during strong wind is considered sufficient to accommodate movement associated with ground shaking. Although ground shaking could cause wires to swing, existing design criteria for wind loads are adequate to preclude wires from contacting each other or other structures. Thus, this impact is less than significant.

Substation improvements and new towers and poles would be designed in accordance with the CBC and the seismic design criteria developed using the site specific seismic design criteria calculated for the substation, tower, and pole locations. Use of standard seismic engineering design criteria, and accepted construction methods would ensure that potential impacts associated with strong ground shaking at the substations and new pole and tower locations would be less than significant.

Mitigation: None required.

Impact 4.6-3: Seismic-related ground failure, including liquefaction, could cause damage to the Proposed Project and, subsequently, create a risk of loss, injury, or death. *Less than significant* (Class III)

In order for liquefaction to occur, there needs to be relatively shallow groundwater conditions, generally at depths of less than 50 feet below the ground surface. Shallow groundwater conditions do not exist in the project area and the Proposed Project would not cause the groundwater table to rise. Regardless, the potential for liquefaction or other phenomena resulting in dynamic ground settlement, if even present, can be easily reduced with adequate geotechnical and foundation engineering. Therefore, with the implementation of standard engineering practices, any potential impacts associated with liquefaction, if discovered during geotechnical investigations that would be conducted for the Proposed Project, would be reduced to less than significant levels. The potential impact related to seismic-related ground failure, including liquefaction, would be less than significant.

Mitigation: None required.

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b) Results in substantial soil erosion or the loss of topsoil.

Impact 4.6-4: Ground disturbance by man-made activities can result in accelerated erosion and the loss of topsoil. *Less than significant* (Class III)

Earthwork for the Proposed Project would be expected to consist primarily of the construction of access and spur roads, pole and tower pads, and drilling for pole and tower foundations. These construction activities would disturb surface soils potentially exposing them to the effects of wind or water erosion. Impacts related to ground disturbance could be reduced with restoration of temporarily disturbed areas to the pre-construction conditions at the completion of the Proposed Project. Further, permanent access roads and pole/tower pads would need to be constructed with soils that are adequately compacted (typically 90 percent or more of the laboratory maximum compaction based on American Society for Testing and Materials Test Method D 1557). Furthermore, drainage provisions would need to be constructed and maintained so that water does not pond or drain away in an uncontrolled manner causing erosion.

Standard geotechnical and construction practices associated with the construction of the Proposed Project components, such as those described above, would ensure that the potential for erosion would be minimized. In addition, SCE would be required to prepare a Storm Water Pollution Prevention Plan for the Proposed Project as required by the State Water Resources Control Board as part of the National Pollutant Discharge Elimination System (NPDES) permit program for construction (see Section 4.8, *Hydrology and Water Quality* for information related to NPDES requirements). Therefore, with implementation of standard practices and permit requirements, potential erosion impacts due to ground disturbance from construction of the Proposed Project would be less than significant.

Mitigation: None required.

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c) Located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse

Impact 4.6-5: Adverse conditions could arise if the Proposed Project components were located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Proposed Project and potentially result in lateral spreading, subsidence, or collapse. *Less than significant* (Class III)

Lateral spreading is a phenomenon associated with liquefaction, which is discussed above, under Impact 4.6-3. Considering the relatively deep depth to groundwater in the project area, the potential for liquefaction or related lateral spreading is considered to be very low.

The Proposed Project should not contribute to subsidence because it would not involve the withdrawal of subsurface fluids. However, due to the composition, deposition, and relatively youthful age of the on-site earth materials, the soils may be subject to collapse (or hydro-consolidation). The effects of collapsible soils can be neutralized through proper foundation engineering for the structural improvements. Deep foundations that extend through zones of collapsible soils into competent underlying materials are a means to eliminate the effects of collapsible soils. Therefore, incorporation of geotechnical engineering recommendations, as is standard practice for a construction project of this nature, would reduce the potential for collapse or any other unstable soil conditions. The impact of potentially unstable soils would be less than significant.

Mitigation: None required.

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d) Located on expansive soil, which is defined in the 2007 California Building Code, creating substantial risks to life or property

Impact 4.6-6: Structural improvements, especially concrete slabs, placed on expansive soils can be subject to distress and damage. ***Less than significant*** **(Class III)**

Due to the granular nature of the on-site soils (primarily sands), appreciable amounts of expansive soils in the project area are unlikely to occur. The extent and potential affects of expansive soils, if present, would be explored during the geotechnical design evaluations that would be needed to properly design and construct the Proposed Project. Typical methods for dealing with expansive soils, in the unlikely event that they are present, are the removal of the expansive soils and replacement with non-expansive soils. The potential impact of expansive soils would therefore be less than significant with implementation of standard geotechnical design evaluations.

Mitigation: None required.

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e) Soils incapable of adequately supporting the use of septic tanks or alternative waste -water disposal systems where sewers are not available for the disposal of wastewater

The Proposed Project does not include any septic tanks or other alternative wastewater disposal system. Therefore, there would be no impact (No Impact).

4.6.5 Cumulative Impacts

Impacts on geology and soils are generally localized and do not result in regionally cumulative impacts. Geologic conditions can vary significantly over short distances creating entirely different effects elsewhere. Other future development would be constructed to current standards, which could potentially exceed those of existing improvements within the region, which reduces the potential impacts to the public.

The impact of the Proposed Project on geology and soils is localized and is incrementally less than significant. Therefore, the Proposed Project would not affect the immediate vicinity surrounding the study area. The Proposed Project components would all be constructed in accordance with the most recent version of the California Building Code seismic safety requirements and recommendations contained in the Proposed Project's specific geotechnical reports. Therefore, incremental impacts to area geology and soils resulting from construction and operation of the Proposed Project would not contribute to a cumulatively considerable impact (Class III).

4.6.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Under the No Project Alternative, none of the facilities or infrastructure upgrades associated with the Proposed Project evaluated in this EIR would be constructed by SCE. However, SCE would be required to design a new project in order to satisfy the objectives of the Proposed Project. Depending on the location/route of a new project, there could be concerns related to geotechnical hazards. However, it can be assumed that any project constructed by SCE would be appropriately engineered per geotechnical investigations that would be conducted as applicable. Therefore, it can be assumed that similarly to the Proposed Project, implementation of appropriate geotechnical engineering measures as well as APM GEO-1 and APM GEO-2 would reduce potential impacts associated with geology, soils and seismicity to less than significant (Class III).

Alternative 2

Impacts related to geology, soils, and seismicity for Alternative 2 would be similar to the proposed Farrell-Garnet subtransmission line because the alternative would be located primarily in flat terrain underlain by similar materials. However, a portion of the Alternative 2 alignment traverses over the eastern portion of Garnet Hill, which is low relief hill. Although future minor surficial sloughing on Garnet Hill is possible, there is no evidence that deep-seated land slides have or will occur on the Garnet Hill. Standard geotechnical engineering practices would avoid adverse affects to poles due to surficial sloughing. Due to the relatively low relief along Garnet Hill, there is little potential for naturally occurring landslides to occur in the vicinity of the Alternative 2 alignment. Therefore, potential impacts related to landslides along the Alternative 2 alignment would be greater than those associated with the Proposed Project, but would nevertheless be less than significant (Class III).

Alternative 2 would require trenching to place the line underground for approximately three miles thereby increasing the risk of excessive settlement and/or erosion of trench backfills. The trench excavation for Alternative 2 would need to be backfilled with properly compacted materials to mitigate the potential for excessive settlement and/or erosion of trench backfills. Topsoil excavated for trenches would be stockpiled for replacement at the completion of the backfill operations. Therefore, with implementation of standard practices and permit requirements, potential erosion impacts due to ground disturbance from construction of Alternative 2 would be less than significant (Class III).

As with the Proposed Project, overall impacts related to geology, soils, and seismicity from implementation of Alternative 2 would be less than significant with implementation of APM GEO-1 and APM GEO-2 (Class III).

Alternative 3

Impacts related to geology, soils, and seismicity for Alternative 3 would be similar to the proposed Farrell-Garnet subtransmission line because the alternative would be located primarily in flat terrain underlain by similar materials. Alternative 3 would require trenching to place the line underground for approximately 3.6 miles thereby increasing the risk of excessive settlement and/or erosion of trench backfills. The trench excavation for Alternative 3 would need to be backfilled with properly compacted materials to mitigate the potential for excessive settlement and/or erosion of trench backfills. Topsoil excavated for trenches would be stockpiled for replacement at the completion of the backfill operations. Therefore, with implementation of standard practices and permit requirements, potential erosion impacts due to ground disturbance from construction of Alternative 3 would be less than significant (Class III).

As with the Proposed Project, overall impacts related to geology, soils and seismicity from implementation of Alternative 3 would be less than significant with implementation of APM GEO-1 and APM GEO-2 (Class III).

Alternative 5

Impacts related to geology, soils, and seismicity for Alternative 5 would be similar to the proposed Mirage-Santa Rosa subtransmission line because the alternative would be located primarily in flat terrain underlain by similar materials. Alternative 5 would require trenching to place the line underground from Mirage Substation, west on Ramon Road, south on Monterey Avenue, then southeasterly on Varner Road to a point where it would rise above the ground surface and cross over I-10. The trench excavation for Alternative 5 would need to be backfilled with properly compacted materials to mitigate the potential for excessive settlement and/or erosion of trench backfills. Topsoil excavated for trenches would be stockpiled for replacement at the completion of the backfill operations. Therefore, with implementation of standard practices and permit requirements, potential erosion impacts due to ground disturbance from construction of Alternative 5 would be less than significant (Class III).

As with the Proposed Project, overall impacts related to geology, soils, and seismicity from implementation of Alternative 5 would be less than significant with implementation of APM GEO-1 and APM GEO-2 (Class III).

Alternative 6

Impacts related to geology, soils, and seismicity for Alternative 6 would be similar to the proposed Farrell-Garnet subtransmission line because the alternative would be located primarily in flat terrain underlain by similar materials. Alternative 6 would require trenching to place underground line for one mile along Vista Chino between Landau Boulevard and Date Palm Drive. The trench excavation for Alternative 6 would need to be backfilled with properly compacted materials to mitigate the potential for excessive settlement and/or erosion of trench backfills. Topsoil excavated for trenches would be stockpiled for replacement at the completion of the backfill operations. Therefore, with implementation of standard practices and permit requirements, potential erosion impacts due to ground disturbance from construction of Alternative 6 would be less than significant (Class III).

As with the Proposed Project, overall impacts related to geology, soils, and seismicity from implementation of Alternative 6 would be less than significant with implementation of APM GEO-1 and APM GEO-2 (Class III).

Alternative 7

Impacts related to geology, soils, and seismicity for Alternative 7 would be similar to the proposed Farrell-Garnet subtransmission line because the alternative would be located primarily in flat terrain underlain by similar materials. Therefore, overall impacts related to geology, soils, and seismicity from implementation of Alternative 7 would be less than significant with implementation of APM GEO-1 and APM GEO-2 (Class III).

References – Geology and Soils

California Division of Mines and Geology (CDMG). 1997. Guidelines for Evaluating and Mitigating Seismic Hazards in California: Special Publication 117.

City of Cathedral City. 2002. General Plan Geotechnical Element: adopted July 31, 2002.

City of Indian Wells. 1996. General Plan Safety Element: adopted February 1, 1996.

City of Palm Desert. 2004. General Plan Geotechnical Element: adopted March 15, 2004.

City of Palm Springs. 2007. General Plan Safety Element: adopted October 24, 2007.

City of Rancho Mirage. 2006. General Plan Safety Element: adopted January 2006.

County of Riverside. 2003. Riverside County General Plan. Adopted October 7, 2003

Hart, E.W., Smith, D.P., and Saul, R.B. 1979. Summary Report: Fault Evaluation Program, 1978 Area (Peninsular Ranges-Salton Trough Region): California Division of Mines and Geology, Open File Report 79-10.

Hart, E.W., and Bryant, W.A. 1997. Fault-Rupture Hazard Zones in California: California Division of Mines and Geology, Special Publication 42 (Supplements 1 and 2 added 1999).

Jennings, C.W. 1994. Fault Activity Map of California and Adjacent Areas with Locations and Ages of Recent Volcanic Eruptions: California Division of Mines and Geology, Geologic Data Map No.6, Scale 1:750,000.

Norris, R.M., and Webb, R.W. 1990. Geology of California: John Wiley & Sons, Inc.

Proctor, R.J. 1968. Geology of the Desert Hot Springs-Upper Coachella Valley Area, California: California Division of Mines and Geology, Special Report 94.

Sneed, M., Stork, S.V., and Marti, I.E. 2002. Detection and Measurement of Land Subsidence Using Global Positioning System and Interferometric Synthetic Aperture Radar, Coachella Valley, California, 1998-2000: United States Geological Survey, Water-Resources Investigations Report 02-4239.

United States Department of Agriculture, Natural Resources Conservation Service (USDA). 2008. Web Soil Survey (accessed August 2008).

United States Geological Survey (USGS)/California Geological Survey (CGS). 2002. Probabilistic Seismic Hazard Assessment (PSHA) Model: Revised April 2003.

4.7 Hazards and Hazardous Materials

4.7.1 Setting

Materials and waste may be considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode, or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined by the State of California, Health and Safety Code, Chapter 6.95, Section 25501(o) as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment. In some cases, past industrial or commercial uses on a site can result in spills or leaks of hazardous materials and petroleum to the ground; thus resulting in soil and groundwater contamination. Federal and State laws require that soils having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain acceptable levels must be handled and disposed as hazardous waste during excavation, transportation, and disposal. The California Code of Regulations (CCR), Title 22, Section 66261.20-24 contains technical descriptions of characteristics that would cause soil to be classified as a hazardous waste. The use of hazardous materials and disposal of hazardous wastes are subject to numerous laws and regulations at all levels of government.

In addition to toxic substances, the CPUC generally provides information about electric and magnetic fields (EMF) in its environmental documents, including this EIR, to inform the public and decision makers; however, it does not consider EMF, in the context of CEQA, as an environmental impact because there is no agreement among scientists that EMF creates a potential health risk and because CEQA does not define or adopt standards for defining any potential risk from EMF. For informational purposes, additional information about EMF generated by transmission lines is provided in the project description and in Appendix B.

Existing Environment

The study area is located in unincorporated areas of Riverside County, including the community of Thousand Palms, and within portions of the Cities of Palm Springs, Cathedral City, Palm Desert, Indian Wells, and Rancho Mirage. Portions of the proposed Farrell-Garnet 115 kV alignment and the alignments for Alternatives 2, 3, and 7 are located within the Whitewater River wash and the other portions of the alignments are located within undeveloped open space and residential and commercial land use areas. Past land uses, such as but not limited to commercial and industrial uses, could have resulted in hazardous material releases in the area. As such, a regulatory database search was conducted to identify any known hazardous material storage sites, use locations, and or illicit release sites.

Hazardous Materials Database Records Search

Environmental FirstSearch conducted a regulatory database search of sites that are listed on agency files for the documented use, storage, generation, or release of hazardous materials and/or petroleum products (FirstSeach, 2007 and 2009). The database search process includes the review

of dozens of lists generated by, federal, State, County, and/or city regulatory agencies for historically contaminated properties, and for businesses that use, generate, or dispose of hazardous materials or petroleum products. In addition, the database search lists active contaminated sites that are currently undergoing monitoring and remediation. The databases searched and reviewed by Environmental FirstSearch are listed in Table 4.7-1.

The records search included a search radius of about one half mile along the Proposed Project and alternative alignments. The search radius identified 22 sites near the proposed Farrell-Garnet alignment, eight sites near the proposed Mirage-Santa Rosa alignment, and 32 sites near the proposed 220 kV loop-in alignment. Furthermore, there were 55 sites near the Alternative 2 alignment, 87 sites near the Alternative 3 alignment, 19 sites near the Alternative 5 alignment, 71 sites near the Alternative 6 alignment, and 165 sites near the Alternative 7 alignment. In many instances, the same site was identified within the search radius of more than one of the alignments and some of the sites were listed on multiple databases.

Table 4.7-2 includes a list of sites identified in the Environmental FirstSearch Report. In addition to sites listed in the table, portions of the Proposed Project and alternative alignments and sites are located within the 100 and 500 year flood plains. There are also a number of listings under the Emergency Response Notification System (ERNS) related to highway incidents which were not included in the table. Overall, the records search report concludes that there are no known significant hazardous materials concerns along the Proposed Project and alternative alignments. The majority of the findings of this preliminary record search are Resource Conservation and Recovery Act (RCRA) generators, State permit sites, other State sites, and LUST sites from nearby businesses such as gas stations or auto repair shops. No National Priority List or Superfund sites were identified.

Regulatory database searches were not conducted for the proposed substation modification or 115 kV reconfiguration sites that are not along the proposed or alternative alignments; however, SCE has indicated that a 2,500 gallon gasoline fuel tank is located at the Devers Substation. It should also be noted that although substation transformers now almost exclusively use mineral oil as an insulating agent, which is not considered a hazardous material, it is likely that transformer oil was historically used at Proposed Project substations that contained several constituents of concern, including lead, petroleum hydrocarbons, and polychlorinated biphenyls (PCBs).

Wood Treatment Products

The existing subtransmission line wood poles that would be removed under the Proposed Project and Alternatives 6 and 7 and the existing distribution line wood poles that would be removed under Alternatives 2 and 3 are treated with chemicals that likely include pentachlorophenol, creosote, and chromated copper arsenate. These treatment chemicals are used in pressure treated wood to protect wood from rotting due to insects and microbial agents. These chemicals, for certain uses and quantities, can be considered to be hazardous materials, which require specific handling procedures prescribed by State and federal regulations. These chemicals are typically applied to utility wood poles by the manufacturer at their facility and are left to set and dry prior to installation and/or use of the poles. Additionally, the base of some of the treated wood poles

TABLE 4.7-1
REGULATORY AGENCY DATABASES ACCESSED

Database	Type of Record	Agency
NPL	National Priority List	United States Environmental Protection Agency (USEPA)
NPL Delisted	National Priority List Subset	USEPA
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System	USEPA
NFRAP	No Further Remedial Action Plan (archive of CERCLIS sites)	USEPA
RCRA COR ACT	Resource Conservation and Recovery Act Information System Sites	USEPA
RCRA TSD	Resource Conservation and Recovery Act Treatment, Storage, and Disposal Facilities	USEPA
RCRA GEN	Resource Conservation and Recovery Information System Generators	USEPA
RCRA NLR	Resource Conservation and Recovery Act Information System Sites that no longer require reporting	
Federal IC / EC	Brownfield Management System	USEPA
ERNS	Emergency Response Notification System	USEPA / National Response Center
Tribal Lands	Indian Lands of the United States	U.S. Department of Interior / Bureau of Indian Affairs
State Spills 90	Regional Water Quality Control Board's (RWQCB's) spills, leaks, investigations, and cleanups	California Environmental Protection Agency (Cal EPA)
State/Tribal SWL	Solid Waste Information System	California Integrated Waste Management Board / State Water Resources Control Board (SWRCB) / Riverside County
State/Tribal LUST	Leaking Underground Storage Tank Listing	SWRCB / Riverside County
State/Tribal UST/AST	Underground and Aboveground Storage Tank Listing	SWRCB / Riverside County
State/Tribal IC	Deed Restricted Sites Listing	Cal EPA / Department of Toxic Substances Control (DTSC)
State/Tribal VCP	Voluntary Cleanup Program Sites	Cal EPA/ DTSC
State/Tribal Brownfields	Site Mitigation and Brownfields Reuse Program Database	DTSC
State Permits	Tracks establishments and the status of their permits in relation to compliance with federal, State and local regulations.	Riverside County
State Other	Database of sites that are known to be contaminated as well as sites with uncharacterized properties where further studies may reveal problems	Cal EPA / DTSC
Floodplains	100 year and 500 year floodplain boundaries	Federal Emergency Management Agency
Oil & Gas Wells	Completions, pluggings and permits	California Department of Conservation

SOURCE: Environmental FirstSearch, 2007.

TABLE 4.7-2
HAZARDOUS MATERIALS SITES IN THE VICINITY OF THE STUDY AREA

Site Name	Site Address	Approximate Distance to Project or Alternatives	Regulatory List[a]	Additional Details
Palm Airport	333 North Gene Autry Trail, Palm Springs	Farrell-Garnet: 0.03 mile SW	ERNS	
GTE Palm Springs Plant Yard	979 Gene Autry Trail, Palm Springs	Farrell-Garnet: 0.03 mile SW	LUST; UST	LUST: Closed
Desert Water Agency	1200 South Gene Autry Trail, Palm Springs	Farrell Garnet: 0.03 mile SW	LUST; UST	LUST: Closed
Signature Flight Support, Inc.	145 Gene Autry Trail, Palm Springs	Farrell Garnet: 0.04 mile SW	LUST	Closed
Palm Springs Country Club	2500 Whitewater Club Drive, Palm Springs	Farrell Garnet: 0.33 mile SW Alt 2/Alt 3: 0.49 mile NE	LUST	Closed
The Desert Sun	750 Gene Autry Trail, Palm Springs	Farrell Garnet: 0.03 mile SW	RCRA GEN	Small Quantity Generator
Katsu Lawnmower	1105 Gene Autry Trail, Palm Springs	Farrell Garnet: 0.03 mile SW	RCRA GEN	Small Quantity Generator
Hertz Equipment Rental	27650 Executive Drive, Palm Springs	Farrell Garnet: 0.04 mile NE Alt 2/Alt 3/Alt 6/Alt 7: Unknown	RCRA GEN	Small Quantity Generator
Skywest Airlines Inc	333 Gene Autry Trail, Palm Springs	Farrell Garnet: 0.03 mile SW	UST	
Palm Springs Oil 8	670 Palm Canyon Drive, Palm Springs	Farrell Garnet: 0.03 mile SW	UST	
Sossa S Market 4	3700 E Vista Chino, Palm Springs	Farrell Garnet: 0.18 mile SW Alt 2/Alt 3/Alt 6/Alt 7: 0.00 mile (adjacent)	UST	
Desert Hot Springs Disposal Site	North of I-10, Desert Hot Springs	Farrell-Garnet/Alt 2/ Alt 3/Alt 6: Unknown	SWL	Active Site
Texaco Marks	1700 East Vista Chino, Palm Springs	Alt 2/Alt 3: 0.00 mile (adjacent)	LUST	Closed
Walgreens 1079	1700 East Vista Chino, Palm Springs	Alt 2/Alt 3: 0.00 mile (adjacent)	PERMITS	
Agua Caliente Indian Reservation	Not Available	Alt 2/Alt 3/Alt 6/Alt 7: 0.00 mile (adjacent)	Tribal Land	
Texaco F L Vick	1700 East Vista Chino, Palm Springs	Alt 2/Alt 3: 0.00 mile (adjacent)	UST	
Palm Springs Chevron	1700 Vista Chino, Palm Springs	Alt 2/Alt 3: 0.00 mile (adjacent)	UST	
Sunrise Cleaners	1717 East Vista Chino Ste A1, Palm Springs	Alt 2/Alt 3: 0.01 mile S	State permits; State other	
AutoZone 5568	1717 Vista Chino East, Palm Springs	Alt 2/Alt 3: 0.01 mile S	State permits; State other	
Sunrise Dental	1717 Vista Chino Ste A5, Palm Springs	Alt 2/Alt 3: 0.01 mile S	State permits	
Albertsons 6569	1715 N Sunrise Way, Palm Springs	Alt 2/Alt 3: 0.01 mile SW	State other	

TABLE 4.7-2 (Continued)
HAZARDOUS MATERIALS SITES IN THE VICINITY OF THE STUDY AREA

Site Name	Site Address	Approximate Distance to Project or Alternatives	Regulatory List[a]	Additional Details
Kaiser Permanente Medical Office Building	1717 E Vista Chino, Palm Springs	Alt 2/Alt 3: 0.01 mile SW	State permits	
Desert Aids Project	1695 N Sunrise Way, Palm Springs	Alt 2/Alt 3: 0.02 mile SW	State; VCP	
ARCO 05968/Prestige Stations Inc	1717 Vista Chino, Palm Springs	Alt 2/Alt 3: 0.03 mile SW	State other; RCRA GEN	Small Quantity Generator
AM/PM Mini Mart 5968	1717 Vista Chino, Palm Springs	Alt 2/Alt 3: 0.03 mile SW	UST	
Walgreens 7577	1695 Sunrise Way, Palm Springs	Alt 2/Alt 3: 0.04 mile SW	State permits	
Granite Construction Company	6950 N Indian Ave, Palm Springs	Farrell-Garnet/Alt 2/Alt 3/Alt 6/Alt 7: 0.01 mile	State permits	
Lumberman's	3455 North Indian Canyon, Palm Springs	Alt 3: 0.00 mile (adjacent)	LUST; UST	LUST: Closed
USA Gas	3689 North Indian Canyon Drive, Palm Springs	Alt 3: 0.00 mile (adjacent)	State Other	
PS Gas Mini Mart	3689 North Indian Canyon Drive, Palm Springs	Alt 3: 0.00 mile (adjacent)	State permits; UST	
ARCO North End	3689 North Indian Canyon Drive, Palm Springs	Alt 3: 0.00 mile (adjacent)	UST	
Sprint Palm Springs POP	3601 North Indian Canyon Drive, Palm Springs	Alt 3: 0.00 mile (adjacent)	UST	
Palm Springs Auto Care	3399 North Indian Canyon Drive, Palm Springs	Alt 3: 0.01 mile E	State permits; State other	
H and H Automotive Repair	145 Oasis Road, Palm Springs	Alt 3: 0.03 mile NW	State other; RCRA GEN	Small Quantity Generator
Palm Springs Classic Auto Body	180 Oasis Road, Palm Springs	Alt 3: 0.05 mile NW	State other	
Kwik Kleen of the Desert	179 Oasis Road, Palm Springs	Alt 3: 0.05 mile NW	RCRA GEN	Small Quantity Generator
Agan Woodcrafters Inc	175 W Radio Road, Palm Springs	Alt 3: 0.06 mile NW	State permits	
Ados Automotive	225 W Oasis Road, Palm Springs	Alt 3: 0.10 mile NW	State permits	
Palm Springs Recycling Center	280 Oasis Road, Palm Springs	Alt 3: 0.12 mile NW	State other	
Brothers Towing Inc II	301 W Del Sol Road, Palm Springs	Alt 3: 0.14 mile NW	State permits; State other	

TABLE 4.7-2 (Continued)
HAZARDOUS MATERIALS SITES IN THE VICINITY OF THE STUDY AREA

Site Name	Site Address	Approximate Distance to Project or Alternatives	Regulatory List[a]	Additional Details
Omag Auto Machine Shop	333 Del Sol Road, Palm Springs	Alt 3: 0.17 mile NW	State other	
Arcaro S Auto Body Repair	340 Del Sol Road, Palm Springs	Alt 3: 0.18 mile NW	State permits; State other	
Toles Enterprises	285 Radio Road, Palm Springs	Alt 3: 0.19 mile NW	State permits	
Swiss Motor	3535 N Anza, Palm Springs	Alt 3: 0.22 mile NW	State permits; State other	
Champion Bearings, Inc	3535 N Anza, Palm Springs	Alt 3: 0.22 mile NW	State other; RCRA GEN	Small Quantity Generator
David D. Smith Automotive	401 Radio Road, Palm Springs	Alt 3: 0.24 mile NW	State permits; State other	
German Auto Tech	401 Radio Road, Palm Springs	Alt 3: 0.24 mile NW	State other	
Palm Springs Planting	345 Del Sol Road, Palm Springs	Alt 3: 0.24 mile NW	State other; RCRA GEN	Large Quantity Generator
Doral Resort	67967 Vista Chino Cathedral City	Alt 6: 0.00 mile (adjacent) Alt 7: 0.05 mile NE	State other; UST	
Sweet Light Photo Lab	68905 Vista Chino, Cathedral City	Alt 6: 0.01 mile SE Alt 7: 0.11 mile SW	State other	
CVS Pharmacy 1520	68010 Vista Chino, Cathedral City	Alt 6: 0.01 mile SE Alt 7: 0.18 mile NE	State permits	
Desert Princess CC/HOA	67177 Vista Chino, Cathedral City	Alt 6/Alt 7: 0.01 mile SW	State permits; UST	
ExxonMobil Oil Corporation No 12999	28501 Date Palm Drive, Cathedral City	Alt 6: 0.03 mile SE Alt 7: 0.00 mile (adjacent)	State other; RCRA GEN	Large Quantity Generator
Arco 5476/Prestige Stations 5192	27900 Date Palm Drive, Cathedral City	Alt 6/Alt 7: 0.04 mile NE	State other; LUST; RCRA GEN; UST ERNS	LUST: Closed; Small Quantity Generator
Mobil 18-BA9	28051 Date Palm Drive, Cathedral City	Alt 6: 0.04 mile SE Alt 7: 0.00 mile (adjacent)	UST	
Kangaroo Food Mart	28201 Date Palm Drive, Cathedral City	Alt 6: 0.11 mile SE Alt 7: 0.00 mile (adjacent)	State other; UST	
Walgreens 9229	30015 Date Palm Drive, Cathedral City	Alt 6: 0.24 mile SE Alt 7: 0.00 mile (adjacent)	State permits	
Desert Princess Country Club	28555 Landau Blvd, Cathedral City	Alt 6: 0.24 mile SW Alt 7: 0.00 mile (adjacent)	State permits	
Wal-Mart Store 1832	31033 Date Palm Drive, Cathedral City	Alt 7: 0.01 mile SW	State permits; State other; UST	
Date Palm Cleaners	30877 Date Palm Drive, Cathedral City	Alt 7: 0.01 mile SW	State permits; State other	
AutoZone 5550	32375 Date Palm Drive, Cathedral City	Alt 7: 0.01 mile SW	State permits	

TABLE 4.7-2 (Continued)
HAZARDOUS MATERIALS SITES IN THE VICINITY OF THE STUDY AREA

Site Name	Site Address	Approximate Distance to Project or Alternatives	Regulatory List[a]	Additional Details
Tuxedo Exchange	32475 Date Palm Drive, Cathedral City	Alt 7: 0.01 mile SW	State permits	
Pep Boys Many Mo and Jack No 844	31505 Date Palm Drive, Cathedral City	Alt 7: 0.01 mile SW	RCRA GEN; RCRA NLR; State other	Small Quantity Generator
The Alignment Man	68143 Ramon Road, Cathedral City	Alt 7: 0.02 mile NE	State permits; UST	
Sav-On 9616	31575 Date Palm Drive, Cathedral City	Alt 7: 0.02 mile SW	State permits; State other	
Nu-Way Cleaners	69135 Ramon Road, Cathedral City	Alt 7: 0.06 mile NE	State other	
Ultramar 3667	69123 Ramon Road, Cathedral City	Alt 7: 0.06 mile NE	State other; UST; LUST	LUST: Closed
Chevron Products	69123 Ramon Road, Cathedral City	Alt 7: 0.06 mile NE	State permits; UST	
Beacon Station 3667	69123 Ramon Road, Cathedral City	Alt 7: 0.06 mile NE	State permits	
Rite Aid	69155 Ramon Road, Cathedral City	Alt 7: 0.07 mile NE	State other	
U-Haul of Palm Springs	68075 Ramon Road, Cathedral City	Alt 7: 0.08 mile NE	State other; LUST; RCRA GEN; UST	LUST: Closed; Small Quantity Generator
Meaders Cleaners	68100 Ramon Road, Cathedral City	Alt 7: 0.12 mile NE	State other; State permits	
Kragen Auto Parts Store 1480	69140 Ramon Road, Cathedral City	Alt 7: 0.12 mile NE	State other; State permits	
Valero Station 3667	69123 Ramon Road, Cathedral City	Alt 7: 0.12 mile NE	State permits	
Palm Springs Oil 12	68855 Ramon Road, Cathedral City	Alt 7: 0.13 mile SW	LUST; UST; State other	LUST: Closed
Firestone Store 2234	68240 Ramon Road, Cathedral City	Alt 7: 0.14 mile NE	LUST; UST; State other; State permits	LUST: Closed
Western Dental Centers	69160 Ramon Road, Cathedral City	Alt 7: 0.15 mile NE	State permits	
Circle K 903	68258 Ramon Road, Cathedral City	Alt 7: 0.16 mile NE	LUST; UST	LUST: Closed
Midas Muffler	68275 Ramon Road, Cathedral City	Alt 7: 0.18 mile NE	RCRA GEN	Small Quantity Generator
Low Desert Truck Repair	33335 Moreno Road, Cathedral City	Alt 7: 0.18 mile SE	State permits	
Big League Dreams Sports Park	33700 Date Palm Drive, Cathedral City	Alt 7: 0.18 mile SE	State permits	
Jiffy Lube	68815 Ramon Road, Cathedral City	Alt 7: 0.18 mile SW	State permits; State other	
Best Lube N Tune	68280 Ramon Road, Cathedral City	Alt 7: 0.19 mile NE	RCRA GEN; UST	Small Quantity Generator

TABLE 4.7-2 (Continued)
HAZARDOUS MATERIALS SITES IN THE VICINITY OF THE STUDY AREA

Site Name	Site Address	Approximate Distance to Project or Alternatives	Regulatory List[a]	Additional Details
International Motors	68795 Ramon Road, Cathedral City	Alt 7: 0.20 mile SW	State permits; State other	
Cathedral City Fire Department	32100 Desert Vista Road, Cathedral City	Alt 7: 0.21 mile SW	State permits; UST	
Southwest Dental	68820 Ramon Road, Cathedral City	Alt 7: 0.21 mile SW	State Permits	
Dare Cadillac	68800 Ramon Road, Cathedral City	Alt 7: 0.25 mile SW	State permits; State other	
Chevron Ramon	68010 Ramon Road, Cathedral City	Alt 7: 0.26 mile SW	LUST	Open – Site Assessment (4/28/09)
Palm Springs Oil 13	68450 Ramon Road, Cathedral City	Alt 7: 0.39 mile NE	LUST	LUST: Closed
7-Eleven 16525	67510 Ramon Road, Cathedral City	Alt 7: 0.45 mile SW	LUST	LUST: Closed
University High School	Gerald Ford Drive/Portola Avenue	Santa Rosa-Mirage: 0.42 mile SW Alt 5: 0.44 mile SW	State	
Circle K 564	73010 Ramon Road, Thousand Palms	Alt 5: 0.01 mile SW	LUST; UST RCRA GEN	LUST: Closed Small Quantity Generator
Texaco	33100 Monterey, Thousand Palms	Alt 5: 0.02 mile NE	LUST; UST	LUST: Closed
Suncrete Roof Tile	72470 Varner Road, Thousand Palms	Alt 5: 0.23 mile SW	LUST	Closed
Sunline Transit Agency	32505 Harry Oliver Trail, Thousand Palms	Alt 5: 0.33 mile SW	LUST	Closed
Tri Palms Estate	32700 Desert Moon, Thousand Palms	Alt 5: 0.39 mile SW	LUST	Closed
Pete S Automotive	32125 Arbol Real Ave, Thousand Palms	Alt 5: 0.11 mile SW	State other	
Arco Facility No 06306	32975 Monterey Ave, Thousand Palms	Alt 5: 0.02 mile SW	RCRA GEN; UST	Small Quantity Generator
Home Depot USA	34249 Monterey Ave, Thousand Palms	Alt 5: 0.21 mile SW	RCRA GEN	Small Quantity Generator

a Refer to Table 4.7-1 for definitions of the regulatory lists; Transportation related ERNS sites omitted from table.

SOURCE: Environmental FirstSearch, 2007 and 2009.

may be wrapped with copper naphthenate paper, also known as CuNap wrap.[1] This paper has been accepted as a wood preservative for several decades and has been employed in non-pressure treatments of wood and other products. Copper naphthenate is a common preservative and its use has increased recently in response to environmental concerns associated with other wood treatment products.

Schools

The Proposed Project and alternative alignments and sites are located within the Palm Springs Unified School District (PSUSD), which serves the students and families of Cathedral City, Desert Hot Springs, Palm Desert, Palm Springs, Rancho Mirage, and Thousand Palms. The following schools are located within one quarter mile of the proposed and alternative alignments:

- Palm Springs Montessori School is approximately 1,300 feet south-southwest of the Farrell Substation and the southern end of the proposed Farrell-Garnet alignment.
- Montessori Elementary School is along Vista Chino, approximately 50 feet north of the alignments for Alternatives 2 and 3.
- Desert Son-Shine Preschool is along Via Negocio, approximately 300 feet north of the alignments for Alternatives 2 and 3.
- Coyote Run Headstart preschool is along Sunrise Way, approximately 700 feet west of the alignment for Alternative 2.
- Creative Beginnings Montessori is along Vista Chino, approximately 100 feet south of the alignment for Alternative 3.
- Raymond Cree Middle School is along Vista Chino, approximately 100 feet south of the alignment for Alternative 3.
- Landau Elementary School is along Landau Boulevard, approximately 50 feet east of the alignment for Alternative 7.
- Mount San Jacinto High School is along Landau Boulevard, approximately 50 feet east of the alignment for Alternative 7.
- Sunny Sands Elementary School is along Mc Callum Way approximately 1,200 feet east of the alignment for Alternative 7.

In addition to the schools identified above, Cathedral City Elementary School is approximately 400 feet west of Tamarisk Substation and the Marywood Country Day School on Clancy Lane in Rancho Mirage is approximately 400 feet west of Santa Rosa Substation.

[1] CuNap wrap is a self contained delivery system for copper napthenate, the internationally recognized wood preservative that fights the damaging effects of moisture, decay, and insect attack.

Airports

The Palm Springs International Airport is located within a half-mile of the existing Farrell Substation (and the southern end of the proposed Farrell-Garnet alignment and the western end of the alignment for Alternatives 6 and 7) and is immediately south of the underground segment associated with the Alternatives 2 and 3 alignment. The airport is also located one mile west of the portion of the Alternative 7 alignment that follows Landau Boulevard.

Wildland Fire Conditions

The California Department of Forestry and Fire Protection (Cal Fire) has published Draft Fire Hazard Severity Zones for the State. These maps give fire hazards either a "moderate," "high," or "very high" rating classification. The Palm Springs Fire Hazard Severity Zone Map indicates that the Proposed Project and alternatives would be located within "moderate" and "high" fire severity zones. The mountains to the south and west of the valley have a "very high" fire classification (Cal Fire, 2008).

Regulatory Context

Federal

Occupational Safety and Health Administration

The federal Occupational Safety and Health Administration (OSHA) enforces regulations covering the handling of hazardous materials in the workplace. The regulations established in the Code of Federal Regulations (CFR) Title 29 are designed to protect workers from hazards associated with encountering hazardous materials at the work site. The regulations require certain training, operating procedures, and protective equipment to be used at work sites that could encounter hazardous materials.

Resource Conservation and Recovery Act

Under the federal Resource Conservation and Recovery Act (RCRA), individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as federal RCRA requirements and is approved by the USEPA. The USEPA approved California's RCRA program, referred to as the Hazardous Waste Control Law (HWCL) in 1992.

Toxic Substance Control Act

The Toxic Substances Control Act (TSCA) of 1976 was enacted by Congress to give the USEPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The USEPA repeatedly screens these chemicals and can require reporting or testing of those that may pose an environmental or human-health hazard. The USEPA can ban the manufacture and import of those chemicals that pose an unreasonable risk.

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) was developed to protect the water, air, and land resources from the risk created by past chemical disposal practices. This act is also referred to as the Superfund Act, and the sites listed under it are referred to as Superfund sites. Under CERCLA, the USEPA maintains a list, known as the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), of all contaminated sites in the nation that have in part or are currently undergoing clean-up activities. CERCLIS contains information on current hazardous waste sites, potential hazardous waste sites, and remediation activities. This includes sites that are on the National Priorities List (NPL) or being considered for the NPL.

State

California Code of Regulations

The California Code of Regulations (CCR), Title 22, Section 66261.20-24, contains technical descriptions of characteristics that would classify wasted material, including soil, as hazardous waste. When excavated, soils with concentrations of contaminants higher than certain acceptable levels must be handled and disposed as hazardous waste.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) administer the requirements of the Clean Water Act that regulate pollutant discharges into waterways of the U.S. The Colorado River RWQCB (CRRWQCB) enforces site cleanup regulations for illicit discharges that have resulted in contamination of groundwater in the project area.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials onsite prepare a business plan and submit it to local health and fire departments. The business plan must include details of the facility and business conducted at the site, an inventory of hazardous materials that are handled and stored onsite, an emergency response plan, and a safety and emergency response training program for new employees with an annual refresher course.

California Occupational Safety and Health Administration

In California, the California Occupational Safety and Health Administration (Cal OSHA) regulates worker safety similar to the federal OSHA. OSHA has developed worker safety regulations for the safe abatement of lead-based paint and primers (Lead in Construction Standard, Title 8 CCR 1532.1).

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

In January 1996, Cal EPA adopted regulations, which implemented a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program has

six elements, including: (1) hazardous waste generators and hazardous waste onsite treatment; (2) underground storage tanks (USTs); (3) aboveground storage tanks (ASTs); (4) hazardous materials release response plans and inventories; (5) risk management and prevention programs; and (6) Unified Fire Code hazardous materials management plans and inventories. The plan is implemented at the local level and the agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA). In Riverside County, the Hazardous Materials Management Division of the Department of Environmental Health is the designated CUPA.

Department of Toxic Substance Control

The Department of Toxic Substances Control (DTSC) is responsible for regulating the use, storage, transport, and disposal of hazardous substances in the State. DTSC maintains a Hazardous Waste and Substances Site List for site cleanup. This list is commonly referred to as the Cortese List. Government Code section 65962.5 requires the Cal EPA to update the Cortese List at least annually. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Hazardous Waste Management and Handling

Under RCRA, individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as federal RCRA requirements. The USEPA must approve state programs intended to implement federal regulations. In California, Cal EPA and DTSC, a department within Cal EPA, regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. The USEPA approved California's RCRA program, called the Hazardous Waste Control Law (HWCL), in 1992. DTSC has primary hazardous material regulatory responsibility, but can delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the HWCL.

The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe the management of hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in ordinary landfills. Hazardous waste manifests must be retained by the generator for a minimum of three years. Hazardous waste manifests provide a description of the waste, its intended destination, and regulatory information about the waste. A copy of each manifest must be filed with the State. The generator must match copies of hazardous waste manifests with receipts from treatment, storage, and disposal facilities.

Contaminated soils and other hazardous materials removed from a site during construction or remediation may need to be handled as hazardous wastes.

Hazardous Materials Transportation

The State of California has adopted U.S. Department of Transportation (USDOT) regulations for the intrastate movement of hazardous materials; State regulations are contained in 26 CCR. In

addition, the State of California regulates the transportation of hazardous waste originating in the State and passing through the State (26 CCR). Both regulatory programs apply in California.

The two State agencies with primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). The CHP enforces hazardous materials and hazardous waste labeling and packing regulations to prevent leakage and spills of material in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are the responsibility of the CHP, which conducts regular inspections of licensed transporters to assure regulatory compliance. Caltrans has emergency chemical spill identification teams at as many as 72 locations throughout the State that can respond quickly in the event of a spill.

Common carriers are licensed by the CHP, pursuant to California Vehicle Code Section 32000. This section requires the licensing of every motor (common) carrier who transports, for a fee, in excess of 500 pounds of hazardous materials at one time, and every carrier, if not for hire, who carries more than 1,000 pounds of hazardous material of the type requiring placards.

Every hazardous waste package type used by a hazardous materials shipper must undergo tests that imitate some of the possible rigors of travel. Every package is not put through every test. However, most packages must be able to be kept under running water for a time without leaking, dropped fully loaded onto a concrete floor, compressed from both sides for a period of time, subjected to low and high pressure, and frozen and heated alternately.

Hazardous Materials Emergency Response

Pursuant to the Emergency Services Act, California has developed an Emergency Response Plan to coordinate emergency services provided by federal, State, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the USEPA, CHP, California Department of Fish and Game (CDFG), the RWQCBs, the local air districts (in this case, the South Coast Air Quality Management District (SCAQMD)), and local agencies.

Pursuant to the Business Plan Law, local agencies are required to develop “area plans” for the response to releases of hazardous materials and wastes. These emergency response plans depend to a large extent on the Business Plans submitted by people who handle hazardous materials. An area plan must include pre-emergency planning and procedures for emergency response, notification, and coordination of affected governmental agencies and responsible parties, training, and follow up.

California Public Utilities Code

California Public Utilities Code Section 21658 prohibits structural hazards associated with utility poles and lines near airports. Should a transmission line be located in the vicinity of an airport or

exceed 200 feet in height, a Notice of Proposed Construction or Alteration (Form 7460-1) is required by the Federal Aviation Administration in accordance with Federal Aviation Regulation, Part 77 "Objects Affecting Navigable Airspace."

Local

Riverside County

The Hazardous Materials Management Division (HMMD) is one of the three divisions of Riverside County's Department of Environmental Health (DEH). HMMD is the CUPA for Riverside County responsible for regulating hazardous materials business plans and chemical inventory, hazardous waste and tiered permitting, underground storage tanks, and risk management plans.

The goal of the HMMD is to protect human health and the environment by ensuring that hazardous materials, hazardous waste, and underground storage tanks are properly managed. To accomplish this goal, the HMMD has several programs that work with the regulated community and the public.

Through its membership in the Southern California Hazardous Waste Management Authority (SCHWMA), the County of Riverside has agreed to work on a regional level to solve problems involving hazardous waste. SCHWMA was formed through a joint powers agreement between Santa Barbara, Ventura, San Bernardino, Orange, San Diego, Imperial, and Riverside Counties and the Cities of Los Angeles and San Diego. Working within the concept of "fair share," each SCHWMA county has agreed to take responsibility for the treatment and disposal of hazardous waste in an amount that is at least equal to the amount generated within that county. This responsibility can be met by siting hazardous waste management facilities (transfer, treatment, and/or repository) capable of processing an amount of waste equal to or larger than the amount generated within the county, or by creating intergovernmental agreements between counties to provide compensation to a county for taking another county's waste, or through a combination of both facility siting and intergovernmental agreements.

When and where a facility is to be sited is primarily a function of the private market. However, once an application to site a facility has been received, the County will review the proposed facility and its location against a set of established siting criteria to ensure that the location is appropriate, and may deny the application based on the findings of this review. The County of Riverside does not presently have any of these facilities within its jurisdiction and therefore must rely on intergovernmental agreements to fulfill its fair share responsibility to SCHWMA (Riverside County, 2003).

The Safety Element of the Riverside County General Plan includes some general policies relating to hazards and hazardous materials (Riverside County, 2003). Some selected policies that may be applicable to the Proposed Project include:

Policy S 4.13: Require that facilities storing substantial quantities of hazardous materials within inundation zones shall be adequately flood-proofed and hazardous materials containers shall be anchored and secured to prevent flotation and contamination.

Policy S 5.5: Conduct and implement long-range fire safety planning, including stringent building, fire, subdivision, and municipal code standards, improved infrastructure, and improved mutual aid agreements with the private and public sector.

Policy S 6.1: Enforce the policies and siting criteria and implement the programs identified in the County of Riverside Hazardous Waste Management plan, which includes the following:

a. Comply with federal and State laws pertaining to the management of hazardous wastes and materials.

b. Ensure active public participation in hazardous waste and hazardous materials management decisions in Riverside County.

c. Coordinate hazardous waste facility responsibilities on a regional basis through the Southern California Hazardous Waste Management Authority (SCHWMA).

d. Encourage and promote the programs, practices, and recommendations contained in the County Hazardous Waste Management Plan, giving the highest waste management priority to the reduction of hazardous waste at its source.

City of Palm Springs

The City of Palm Springs General Plan includes policies addressing issues associated with hazards and hazardous materials in its *Safety Element*. The following policies may be applicable to the Proposed Project (City of Palm Springs, 2007):

Policy SA5.1: Promote the proper disposal, handling, transport, delivery, treatment, recovery, recycling, and storage of hazardous materials in accordance with applicable federal, state, and local regulations.

Policy SA5.2: Encourage businesses to utilize practices and technologies that will reduce the generation of hazardous wastes at the source.

Policy SA5.5: Follow the response procedures outlined in the Riverside County Fire Department's Hazardous Materials Area Plan in the event of a hazardous materials emergency.

Policy SA5.11: Prohibit the transport of hazardous waste materials through the City except along Highway 111, Interstate 10, and the Southern Pacific Railroad.

Policy SA5.13: Prohibit the location of facilities using, storing, or otherwise involved in substantial quantities of on-site hazardous materials in flood zones, unless all standards of elevation, anchoring, and flood-proofing have been satisfied and hazardous materials are stored in watertight containers that are not capable of floating.

Policy SA6.3: Encourage development of land uses in airport influence areas that do not create incompatibility between airport and surrounding land uses or cause potential hazards to aviation or to the public.

Policy SA6.4: Review projects for their compliance with the policies of the Riverside County Airport Land Use Compatibility Plan.

Policy SA6.6: Building heights within airport clear zones shall conform to runway approach surfaces and Airport Surveillance Radar critical areas.

City of Cathedral City

The City of Cathedral City addresses issues associated with hazards and hazardous materials in the *Hazardous and Toxic Materials Element* and the *Fire and Police Protection Element* of its General Plan. The following General Plan policies and programs may be applicable to the Proposed Project (City of Cathedral City, 2002):

Hazardous and Toxic Materials Element:

Program 1.C: A Conditional Use Permit shall be required for all new development that generates, transports, or stores hazardous materials.

Policy 2: Encourage and facilitate the adequate and timely cleanup of existing and future contaminated sites within the City and its sphere of influence.

Policy 3: The City shall thoroughly evaluate development proposals for lands directly adjacent to sites known to be contaminated with hazardous or toxic materials.

Policy 4: The City shall designate access routes to facilitate the transport of hazardous and toxic materials.

Fire and Police Protection Element:

Policy 7: The use, manufacture, storage and transport of potentially hazardous materials shall be reviewed and monitored by the City and other appropriate agencies.

City of Rancho Mirage

The City of Rancho Mirage General Plan addresses issues associated with hazards and hazardous materials in the hazardous and toxic materials section of the *Safety Element* as well as the *Water, Sewer and Utilities Element* and the *Fire and Police Protection Element*. The following policies and programs may be applicable to the Proposed Project (City of Rancho Mirage, 2005):

Safety Element:

Hazardous and Toxic Materials - Policy 1: The City shall regulate, to the extent empowered, the delivery, use, and storage of hazardous materials within the City limits and Sphere of Influence.

Hazardous and Toxic Materials - Policy 2: The City shall require and facilitate the safe and responsible disposal and cleanup of all hazardous/toxic waste and waste sites within the City of Rancho Mirage and Sphere of Influence.

Hazardous and Toxic Materials - Program 3.B: Follow the response procedures outlined within the Riverside County Fire Department's Hazardous Materials Area Plan in the event of a hazardous materials emergency.

Water, Sewer and Utilities Element:

Policy 10: Major utility facilities shall be sited to assure minimal impacts to the environment and the community, and minimize potential environmental hazards.

Fire and Police Protection Element:

Policy 3: Potentially hazardous material use and storage shall be regulated by the City and other appropriate agencies.

City of Palm Desert

The City of Palm Desert addresses issues associated with hazards and hazardous materials in the *Hazardous and Toxic Materials Element* and the *Police and Fire Protection Element* of its General Plan. The following General Plan policies and programs are applicable to the Proposed Project (City of Palm Desert, 2004):

Hazardous Materials Element:

Policy 3: Maintain, coordinate, and update hazardous spills as a result of accident or intentional action, and community evacuation plans.

Policy 5: The City shall thoroughly evaluate development proposals for lands directly adjacent to sites known to be contaminated with hazardous or toxic materials, as well as sites, which use potentially hazardous or toxic materials. The City may require soil testing of the proposed development site and the implementation of mitigation measures, which reduce the adverse affects of any contamination to insignificant levels.

Policy 6: Encourage and facilitate the adequate and timely clean up of existing and future contaminated sites within the City of Palm Desert and its sphere of influence.

Policy 7: The City shall designate appropriate access routes to facilitate the transport of hazardous and toxic materials.

Police and Fire Protection Element:

Policy 1: The City shall strictly enforce fire standards and regulations in the course of reviewing development and building plans and conducting building inspections.

Policy 8: The City, County Department of Environmental Health, and other appropriate agencies shall regulate the use and storage of potentially hazardous materials.

Policy 11: Special on-site fire protection measures may be required on well vegetated, hilly areas with slopes of 10 percent or greater, with possible access problems, and/or lack of sufficient water and/or water pressure. Such measures shall be specified during project review.

City of Indian Wells

The City of Indian Wells addresses issues associated with hazards and hazardous materials in Chapter 4, *Public Safety* of its General Plan. The following General Plan policy may be applicable to the Proposed Project (City of Indian Wells, 1996).

Policy IVA1.7: Enforce existing Federal, State, and local ordinances regulating use, manufacture, sale, transport, storage, and disposal of hazardous substances, and continue to implement the Riverside County Hazardous Waste Management Plan.

4.7.2 Significance Criteria

According to Appendix G of the *CEQA Guidelines*, a significant impact would occur if implementation of the project would:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;

e) For a project 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, would the project result in a safety hazard for people residing or working in the project area;

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.7.3 Applicant Proposed Measures

SCE has proposed the following applicant proposed measures (APMs) with respect to hazards and hazardous materials considerations:

APM HAZ-1. Hazardous Materials and Waste Handling Management. Hazardous materials used and stored onsite for the proposed construction activities - as well as hazardous wastes generated onsite as a result of the proposed construction activities – would be managed according to the specifications outlined below.

- *Hazardous Materials and Hazardous Waste Handling:* A project-specific hazardous materials management and hazardous waste management program would be developed prior to construction of the project. The program would outline proper hazardous materials use, storage, and disposal requirements, as well as hazardous waste

management procedures. The program would identify types of hazardous materials to be used during the project and the types of wastes that would be generated. All project personnel would be provided with project-specific training. This program would be developed to ensure that all hazardous materials and wastes are handled in a safe and environmentally sound manner. Hazardous wastes would be handled and disposed of according to applicable rules and regulations. Employees handling wastes would receive hazardous materials training and shall be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and Treatment, Storage, and Disposal Facility (TSDF) training in accordance with OSHA Hazard Communication Standard and 22 CCR. SCE would use landfill facilities that are authorized to accept treated wood pole waste in accordance with HSC 25143.1.4(b).

- *Construction Stormwater Pollution Prevention Plan (SWPPP):* A project-specific construction SWPPP would be prepared and implemented prior to the start of construction of the Proposed Project. The SWPPP would utilize BMPs to address the storage and handling of hazardous materials and sediment runoff during construction activities.

- *Transport of Hazardous Materials:* Hazardous materials that would be transported by truck include fuel (diesel fuel and gasoline) and oil and lubricants for equipment. Containers used to stored hazardous materials would be properly labeled and kept in good condition. Written procedures for the transport of hazardous materials used would be established in accordance with U.S. Department of Transportation and Caltrans regulations. A qualified transporter would be selected to comply with U.S. Department of Transportation and Caltrans regulations.

- *Fueling and Maintenance of Construction Equipment:* Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. Vehicles and equipment would be refueled onsite or by tanker trucks. Procedures would include the use of drop cloths made of plastic, drip pans, and trays, to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling stations would be located in designated areas where absorbent pads and trays would be available. The fuel tanks also would contain a lined area to ensure that accidental spillage does not occur. Drip pans or other collection devices would be placed under the equipment at night to capture drips or spills. Equipment would be inspected daily for potential leakage or failures. Hazardous materials, such as paints, solvents, and penetrants, would be kept in an approved locker or storage cabinet.

- *Emergency Release Response Procedures:* An Emergency Response Plan detailing responses to releases of hazardous materials would be developed prior to construction activities. It would prescribe hazardous materials handling procedures for reducing the potential for a spill during construction and would include an emergency response program to ensure quick and safe cleanup of accidental spills. All hazardous materials spills or threatened release, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of the quantity spilled, would be immediately reported if the spill has entered a navigable water, stream, lake, wetland, or storm drain, if the spill impacted any sensitive area including conservation areas and wildlife preserved, or if the spill caused injury to a person or threatens injury to public health. All construction personnel, including environmental monitors, would be aware of state and federal emergency response reporting guidelines.

APM HAZ-2. Fire Management Plan. The Fire Management Plan would be developed by SCE prior to start of construction.

APM HAZ-3. Spill Prevention, Counter Measure, and Control Plan (SPCC). In accordance with Title 40 of the CFR, Part 112, SCE would prepare an updated SPCC for appropriate substations within the Proposed Project. The plans would include engineered and operational methods for preventing, containing, and controlling potential releases, and provisions for quick and safe cleanup.

APM HAZ-4. Hazardous Materials Business Plan (HMBPs). SCE would prepare and submit an updated HMBP for appropriate substations within the Proposed Project. The required documentation would be submitted to the Certified Unified Program Agency (CUPA). The HMBPs would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment.

4.7.4 Impacts and Mitigation Measures

Analysis Approach

Hazards and hazardous materials impacts could result from fluids used in construction equipment, from materials used and or stored at substations, from encountering unexpected contaminated soil during construction, from wildfires, and from airports. Potential impact thresholds are discussed below as defined by CEQA. Although the APMs outlined above would reduce impacts, additional measures are recommended to ensure the public is protected.

a) Hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Impact 4.7-1: Construction activities would require the use of certain materials such as fuels, oils, solvents, and other chemical products that could pose a potential hazard to the public or the environment if improperly used or inadvertently released. ***Less than significant*** **(Class III)**

During project construction activities, limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc., would be used to fuel and maintain vehicles and motorized equipment. Accidental spill of any of these substances could impact water and/or groundwater quality. Temporary bulk above-ground storage tanks and 55-gallon drums may be used for fueling and maintenance purposes. As with any liquid, during handling and transfer from one container to another, the potential for an accidental release would exist. Depending on the relative hazard of the material, if a spill were to occur of significant quantity, the accidental release could pose a hazard to construction workers, the public, as well as the environment.

While the Proposed Project would not require long-term operational use, storage, treatment, disposal, or transport of significant quantities of hazardous materials, hazardous materials would be used during construction activities. However, SCE has committed to implementing APM HAZ-1 (Hazardous Materials and Waste Handling Management), which requires the proper

handling, use, and disposal of hazardous materials during construction. More specifically, the APM would require SCE to develop and implement a project-specific hazardous materials management and hazardous waste management program, prepare procedures for fueling and maintenance of construction equipment, and prepare an emergency response plan. Implementation of APM HAZ-1 would reduce hazards to the public and environment to the extent possible and would ensure impacts would be less than significant.

In addition, as part of the Proposed Project, existing wood subtransmission poles would be removed and new support pole replacements would be installed. The removed chemically treated poles would require storage and or disposal. Improper storage and or disposal of these poles could result in a hazard to the public or the environment. As required by APM HAZ-1, SCE would dispose of used wood poles at appropriate landfills, consistent with the requirements of HSC 25143.1.4(b). Impacts would be less than significant.

Mitigation: None required.

Impact 4.7-2: Project operations would require the use of certain materials such as fuels, oils, solvents, and other chemical products that could pose a potential hazard to the public or the environment if improperly used or inadvertently released. ***Less than significant*** **(Class III)**

Benzene and other hazardous materials used to operate and maintain electric transmission infrastructure are found in the 2,500 gallon gasoline fuel tank stored at the Devers Substation. Improper storage, use, handling, or accidental spilling of such materials could result in a hazard to the public or the environment. Implementation of APM HAZ-1 would require development of a project-specific hazardous materials management and hazardous waste management program, including an Emergency Response Plan. In addition, APM HAZ-3 would require the development of a Spill Prevention, Counter Measure, and Control Plan in accordance with Title 40 of the CFR, Part 112, and APM HAZ-4 would require SCE to update its Hazardous Materials Business Plan for appropriate substations. Implementation of these APMs would ensure that impacts to the public or the environment would be less than significant.

During operations of the Proposed Project, a potential would exist that a transformer could fail, resulting in a spill of mineral oil. However, the substation upgrades would meet federal Spill Prevention, Control, and Countermeasures (SPCC) requirements, as outlined in Title 40 of the Code of Federal Regulations, Part 112. Clean up and disposal of spills would be conducted pursuant to Title 40 of the CFR, Part 12. Pursuant to USEPA requirements, SCE would inspect the equipment and any required spill containment facilities on a monthly basis. Implementation of the SPCC requirements described above would ensure that potential impacts related to a transformer malfunction oil spill would be less than significant.

Mitigation: None required.

b) Hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact 4.7-3: Construction activities could release previously unidentified hazardous materials into the environment. ***Less than significant with mitigation*** **(Class II)**

Potential impacts from chemicals used or stored during construction and operation of the Proposed Project that would have the potential to be spilled, upset, or released during an accident are addressed under Impact 4.7-1, above. While data obtained from the Proposed Project records searches indicate that no contamination has been identified along the proposed alignments, several nearby hazardous material sites have been identified. Contamination that may be associated with these sites may have migrated and could be uncovered or encountered during construction. There is also a potential that there could have been undocumented releases of hazardous materials (e.g., petroleum hydrocarbons from underground storage tanks, PCBs from transformers, etc.) along the proposed alignments and sites that could have migrated and could be uncovered or encountered during construction.

Implementation of Mitigation Measure 4.7-3 would ensure that potential impacts associated with releasing previously unidentified hazardous materials into the environment would be less than significant by outlining steps to take in the event of encountering previously unidentified hazardous materials. Impacts would be less than significant with mitigation. For impact discussions related to water quality, refer to Section 4.8, *Hydrology and Water Quality*.

> **Mitigation Measure 4.7-3:** SCE's Hazardous Substance Control and Emergency Response Plan (APM HYDRO-4) shall include provisions that would be implemented if any subsurface hazardous materials are encountered during construction. Provisions outlined in the plan shall include immediately stopping work in the contaminated area and contacting appropriate resource agencies, including the CPUC designated monitor, upon discovery of subsurface hazardous materials. The plan shall include the phone numbers of County and State agencies and primary, secondary, and final cleanup procedures. The Hazardous Substance Control and Emergency Response Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.

Significance after Mitigation: Less than Significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Impact 4.7-4: The Proposed Project could handle hazardous or acutely hazardous materials, substances, or waste near an existing school. ***Less than significant*** **(Class III)**

Three existing schools have been identified within one-quarter mile of the Proposed Project components, including: Palm Springs Montessori School, approximately 1,300 feet south-southwest of the Farrell Substation; Cathedral City Elementary School is approximately 400 feet west of Tamarisk Substation; and the Marywood Country Day School is approximately 400 feet west of Santa Rosa Substation. Construction and operation of the Proposed Project would not be expected to result in releases of hazardous emissions, substances, or waste that might impact any school site because SCE would be required to adhere to APMs HAZ-1 through HAZ-4. These measures would require the development and implementation of hazardous materials best management practices. With the implementation of these measures, the Proposed Project would result in less than significant impacts to nearby schools.

Mitigation: None required.

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d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

The Proposed Project would not be located on a known hazardous materials site pursuant to Government Code Section 65962.5. Although the hazardous materials records searches completed for the Proposed Project (FirstSearch, 2007 and 2009) did identify known hazardous material sites in the vicinity of the proposed alignments, none of the identified hazardous materials sites appear to be located at the Proposed Project component locations. Given the distances of the known sites to the proposed transmission line alignments, the status of the sites, types of sites, and the nature of the proposed construction activities, there would be no impacts that would occur related to known hazardous materials sites creating a significant hazard to the public or the environment (No Impact).

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e) For a project 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, would the project result in a safety hazard for people residing or working in the project area.

Impact 4.7-5: The Proposed Project would occur within the Airport Influence Area of the Palm Springs International Airport and could potentially impact airport operations. ***Less than significant*** **(Class III)**

In November of 2007, Stoner Associates produced a report entitled *A Study of Aeronautical Considerations associated with the Proposed Devers-Mirage 115kV Transmission Line System Split and Devers Coachella Valley 220kV Loop-in Project*. A copy of this report was submitted to the CPUC by SCE as a component of the PEA Appendix F. The Stoner report focused on whether various aspects of the Proposed Project would either trigger a notification requirement by penetrating the notification surfaces identified in Part 77 or whether any portion of the Proposed Project would likely penetrate the actual Part 77 imaginary surface.

Federal Aviation Regulation (FAR) Part 77 regulates nearby structure heights by established threshold heights of protected air space. These surfaces are defined by horizontal planes above specific ground elevations and or sloped planes at specific ratios. The overall intent of protected air space is to protect airplanes and structures from interface hazards.

The Stoner report indicates that some of the poles associated with the proposed Farrell-Garnet subtransmission line would require FAA notification; however, it is unlikely that any of the proposed poles would have an aeronautical impact by penetrating the actual Part 77 imaginary surface. Therefore, the Proposed Project would not result in safety hazards for people residing or working in the project area. Impacts would be less than significant.

Mitigation: None required.

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f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

There are no known private airstrips located within two miles of any portion of the Proposed Project alignments or sites. Accordingly, there would be no private airstrip safety hazards impacts associated with the Proposed Project (No Impact).

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g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Impact 4.7-6: Construction of the Proposed Project could interfere with an emergency response plan route. ***Less than significant*** **(Class III)**

Several private and public roadways, including but not limited to Interstate 10, Gene Autry Trail, Varner Road, and Ramon Road would be crossed by the proposed subtransmission lines and would likely need to be temporarily closed during subtransmission line stringing activities. These roadways could be used by people evacuating the area during an emergency. However, in the event of an emergency, construction crews would cease all work and would remove any equipment that would impede the flow of traffic. Access for emergency vehicles would be maintained throughout project construction. Although project construction activities may require temporary road closures, appropriate traffic control plans would be followed, and encroachment permits would be obtained from Riverside County, if needed, and the appropriate city, depending on the jurisdiction of the road (see Section 4.15, *Traffic and Transportation*). Therefore, the Proposed Project would not physically interfere with emergency response or evacuation plans. Impacts would be less than significant.

Mitigation: None required.

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h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Impact 4.7-7: Construction and operation of the Proposed Project could ignite dry vegetation and start a fire. ***Less than significant with mitigation*** **(Class II)**

The Proposed Project would be located in "low" and "very low" wildfire classification zones as described in the Riverside County Western Coachella Valley Area Plan. The California Department of Forestry and Fire Protection describe the area as having a "moderate" and "high" fire severity classification. While vegetation is sparse in the Coachella Valley, fire hazards still persist. Heat or sparks from construction vehicles or equipment have the potential to ignite dry vegetation and cause a fire. Therefore, a moderate fire hazard would exist during construction of the Proposed Project. Implementation of APM HAZ-2, which requires SCE to prepare a Fire Management Plan, would reduce wildfire impacts; however, Mitigation Measure 4.7-7 (below) is recommended to strengthen the intent of APM HAZ-2. Implementation of Mitigation Measure 4.7-7 would reduce fire hazard impacts during construction to less than significant.

During operations, the Proposed Project could increase the risk of wildland fires in the area because induced current on the new subtransmission and transmission lines could result in sparks that could reach vegetation along the subtransmission and transmission line corridors that could result in fire. However, the risk of ignitions and the risk of damage from a Proposed Project-related ignition are low. In addition, SCE would be required to implement State vegetation and tree clearing requirements, including CPUC General Order 95, Public Resources Code Section 4293. Also, SCE would inspect all components of the proposed subtransmission and transmission lines at least annually for corrosion, equipment misalignment, loose fittings, and other common mechanical problems, by either air or ground. Consequently, implementation of the Proposed Project would not result in a significant risk of loss, injury, or death involving wildland fires; therefore, operational impacts would be less than significant.

> **Mitigation Measure 4.7-7:** The Fire Management Plan required pursuant to APM HAZ-2 shall include provisions that require water tanks or other fire suppression devices to be sited at the project sites and be available for fire protection. The plan shall require construction vehicles to contain fire suppression equipment. SCE shall contact and coordinate with all applicable fire departments to determine minimum amounts of fire equipment to be carried on the vehicles and appropriate locations for the water tanks/fire suppression devices. The Fire Management Plan shall document SCE's consultation with the local fire departments. The Fire Management Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.

Mitigation: Less than Significant.

4.7.5 Cumulative Impacts

Construction activities would increase the hazard potential in the study area. However, it is unlikely that the Proposed Project, with the other past, present, and reasonably foreseeable future projects, would contribute to a cumulative hazards or hazardous materials related impact. APMs HAZ-1 through HAZ-4 and Mitigation Measure 4.7-3 would ensure that the Proposed Project's construction-related hazards and hazardous materials impacts would be less than cumulatively considerable (i.e., because the Proposed Project would mitigate its contribution to any potential cumulative impact). Therefore, the cumulative impact of the Proposed Project related to hazards and hazardous materials, in combination with other reasonably foreseeable projects, would be less than significant with mitigation (Class II).

4.7.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

The construction of new infrastructure under the No Project scenario would likely result in potential impacts similar to what would occur under the Proposed Project. Construction equipment could spill or leak oils, fuels, and or lubricants; however, similar to the Proposed Project, implementation of a measure similar to APM HAZ-1 would reduce impacts to less than significant. Construction activities associated with the No Project Alternative could also release previously unidentified hazardous materials into the environment; however, with implementation of a measure similar to Mitigation Measure 4.7-3, impacts would be less than significant (Class II).

The exact location of the construction activity under the No Project Alternative is not known at this time; therefore, impacts could be potentially greater if the new facilities would be located closer to a school than the Proposed Project. Additionally, impacts to operation of the Palm Springs International Airport would be potentially greater than those associated with the Proposed Project depending on the location and height of facilities that would be constructed under the No Project Alternative. At a minimum, the measures similar to the identified APMs and mitigation measures would also apply to this alternative.

As with the Proposed Project, partial road closures would likely be required for construction of the No Project Alternative, which could interfere with emergency vehicles or an evacuation route. At a minimum the No Project Alternative would require a traffic control plan.

Impacts from wildland fire hazards could be greater than the Proposed Project depending on the location of construction activities associated with the No Project Alternative. At a minimum, fire management plan would likely be required for the No Project Alternative.

Alternative 2

Alternative 2 would include the construction of approximately six miles of a new underground and overhead single-circuit 115 kV subtransmission line between the Farrell and Garnet substations. Similar to the Proposed Project, construction equipment associated with Alternative 2 could spill or leak oils, fuels, and or lubricants, and construction activities could release previously unidentified hazardous materials into the environment. However, since Alternative 2 would include construction of a three-mile underground segment, additional construction equipment and earth moving activities would be required. Therefore, risk of spills or release of previously unidentified hazardous materials into the environment would be higher than those associated with the Proposed Project. Nevertheless, similar to the Proposed Project, implementation of APM HAZ-1 and Mitigation Measure 4.7-3 would reduce potential impacts to less than significant (Class II).

Montessori Elementary School, Desert Son-Shine Preschool, and Coyote Run Headstart Preschool would be located within one-quarter mile of Alternative 2. Due to the proximity to these facilities, construction activities associated with Alternative 2 would have a greater chance of impacting these existing schools compared to the proposed Farrell-Garnet subtransmission line. Nevertheless, as with the Proposed Project, implementation of APMs HAZ-1 through HAZ-4 would ensure that impacts associated with hazards to schools would be less than significant (Class III).

A portion of the Alternative 2 subtransmission line would be located approximately 1,500 feet north of the end of the Palm Springs Airport Runway 13R. From a Part 77 Obstacle Clearance Surface standpoint, the most critical location is the location which creates the greatest potential for penetration of the imaginary surfaces. In this case, it's where the routing intersects the eastern edge of the 34:1 approach surface. At this location, the approach surface elevation is approximately 510 feet above mean seal level (msl) and the ground elevation is approximately 488 feet above msl. This indicates that any object 22 feet above ground level (agl) or higher, would be classified as an obstacle and a potential hazard to air navigation. At the western point where the routing crosses the approach surface, the approach surface elevation is estimated at 545 feet above msl and the ground elevation at 501 feet above msl. This indicates that anything greater than 44 feet agl or higher would be classified as an obstacle. However, since the first three miles of Alternative 2 would be placed underground, potential impacts to airport operations from this segment would be eliminated. It can be assumed that impacts associated with the overhead portion of Alternative 2 would be roughly proportional those associated with the proposed Farrell-Garnett subtransmission line; therefore, impacts to airport operations would be less than significant (Class III).

Alternative 2 would require trenching to underground approximately three miles of 115 kV subtransmission line, which would not be required under the proposed Farrell-Garnett subtransmission line. Additionally, this alternative would require construction activities within Vista Chino and Sunrise Way, which would not be required by the Proposed Project. Therefore, this alternative could result in slightly greater impacts to evacuation routes due to increased construction activities in public roadways. Nonetheless, impacts would remain less than significant (Class III).

Alternative 2 would generally result in the same amount of construction activities within undeveloped open space as the Proposed Project. There would be no significant changes in wildland fire hazards under this alternative. Impacts would be less than significant (Class III).

Alternative 3

Alternative 3 would include the construction of approximately 6.5 miles of new underground and overhead single-circuit 115 kV subtransmission line between the Farrell and Garnet substations. Similar to the Proposed Project, construction equipment associated with Alternative 3 could spill or leak oils, fuels, and or lubricants and construction activities could release previously unidentified hazardous materials into the environment. However, since Alternative 3 would include construction of a 3.6-mile underground segment, additional construction equipment and earth moving activities would be required. Therefore, risk of spills or release of previously unidentified hazardous materials into the environment would be higher than those associated with the Proposed Project. Nevertheless, similar to the Proposed Project, implementation of APM HAZ-1 and Mitigation Measure 4.7-3 would reduce potential impacts to less than significant (Class II).

The following schools would be located within one-quarter mile of Alternative 3: Montessori Elementary School; Desert Son-Shine Preschool; Creative Beginnings Montessori; and Raymond Cree Middle School. Due to the proximity to these facilities, construction activities associated with Alternative 3 would have a greater chance of impacting existing schools. Nevertheless, as under the Proposed Project, implementation of APMs HAZ-1 through HAZ-4 would ensure that impacts associated with hazards to schools would be less than significant (Class III).

A portion of the Alternative 3 subtransmission line would be located approximately 1,500 feet north of the end of the Palm Springs Airport Runway 13R. However, since the first 3.6 miles of Alternative 3 would be placed underground, there would be no impacts to airport operations from the underground segment of this alternative. It can be assumed that impacts associated with the overhead portion of Alternative 3 would roughly proportional to those associated with the Proposed Project; therefore, impacts to airport operations would be less than significant (Class III).

Alternative 3 would require trenching to underground approximately 3.6 miles of 115 kV subtransmission line, which would not be required under the Proposed Project. Additionally, this

alternative would require construction activities within Vista Chino, Sunrise Way, San Rafael Drive, and Indian Canyon Drive, which would not be required under the Proposed Project. This alternative could result in slightly greater impacts to evacuation routes due to increased construction activities in public roadways. Nonetheless, impacts would remain less than significant (Class III).

Alternative 3 would generally result in the same amount of construction activities within undeveloped open space as the Proposed Project. There would be no significant changes in wildland fire hazards under this alternative. Impacts would be less than significant (Class III).

Alternative 5

Alternative 5 would include the construction of approximately 3.1 miles of mostly new underground single-circuit 115 kV subtransmission line between Mirage Substation and the existing Santa Rosa-Tamarisk 115 kV line. Similar to the proposed Mirage-Santa Rosa subtransmission line, construction equipment associated with Alternative 5 could spill or leak oils, fuels, and or lubricants and construction activities could release previously unidentified hazardous materials into the environment. However, since Alternative 5 would include construction of an underground segment, additional construction equipment and earth moving activities would be required. Therefore, risk of spills or release of previously unidentified hazardous materials into the environment would be higher than those associated with the Proposed Project. Nevertheless, similar to the Proposed Project, implementation of APM HAZ-1 and Mitigation Measure 4.7-3 would reduce potential impacts to less than significant (Class II).

No existing schools have been identified within one-quarter mile of the Alternative 5 alignment. Therefore, there would be no chance for Alternative 5 to impact an existing school (No Impact).

The Alternative 5 subtransmission line would follow Ramon Road, Monterey Avenue, and Varner Road and would be primarily underground. This alternate alignment is not within two miles of the Palm Springs International Airport and is not located within the airports air traffic influence area. Alternative 5 would result in no airport hazard impacts (No Impact).

Alternative 5 would require construction activities within Ramon Road, Monterey Avenue, and Varner Road, which would not be required by the Proposed Project. This alternative could result in slightly greater impacts due to increased construction activities in public roadways. Nonetheless, impacts would remain less than significant (Class III).

Alternative 5 would generally be constructed within road ROWs. Therefore, there would be slightly less of a wildland fire hazard under this alternative compared to the Proposed Project. However, as under the Proposed Project, impacts would be less than significant (Class III).

Alternative 6

Alternative 6 would include the construction of approximately 4.2 miles of new underground and overhead single-circuit 115 kV subtransmission line between Farrell Substation and the existing Garnet-Santa Rosa 115 kV ROW. Similar to the proposed Farrell-Garnet subtransmission line, construction equipment associated with Alternative 6 could spill or leak oils, fuels, and or lubricants and construction activities could release previously unidentified hazardous materials into the environment. However, since Alternative 6 would include construction of a one mile underground segment, additional construction equipment and earth moving activities would be required. Therefore, risk of spills or release of previously unidentified hazardous materials into the environment would be higher than those associated with the Proposed Project. Nevertheless, similar to the Proposed Project, implementation of APM HAZ-1 and Mitigation Measure 4.7-3 would reduce potential impacts to less than significant (Class II).

No existing schools have been identified within one-quarter mile of the Alternative 6 alignment. Therefore, there would be no chance for Alternative 6 to impact an existing school (No Impact).

Alternative 6 would head east from the Farrell Substation, moving away from the Palm Springs Airport. Since this alternative would be constructed in an alignment that trends away from the approach surface, it would be less likely to impact airport operations than the Farrell-Garnet subtransmission line. Therefore, it can be assumed that impacts to airports associated with Alternative 6 would be less than significant (Class III).

Alternative 6 would require trenching within Vista Chino to underground approximately one mile of 115 kV subtransmission line, which would not be required for the Farrell-Garnet subtransmission line. Therefore, this alternative could result in slightly greater impacts to evacuation routes due to increased construction activities in public roadways. Nonetheless, impacts would remain less than significant (Class III).

Alternative 6 would include construction in more developed areas than the Farrell-Garnet subtransmission line. Therefore, there would be slightly less of a wildland fire hazard under this alternative compared to the Proposed Project. However, as under the Proposed Project, impacts would be less than significant (Class III).

Alternative 7

Alternative 7 would include the construction of approximately 9.1 miles of a new overhead single-circuit 115 kV subtransmission line between Farrell Substation and the existing Garnet-Santa Rosa 115 kV ROW. Similar to the Proposed Project, construction equipment associated with Alternative 7 could spill or leak oils, fuels, and or lubricants and construction activities could release previously unidentified hazardous materials into the environment. However, since Alternative 7 would be substantially longer in length than the Farrell-Garnet subtransmission line, risk of spills or release of previously unidentified hazardous materials into the environment would be higher than those associated with the Proposed Project. Nevertheless, similar to the Proposed

Project, implementation of APM HAZ-1 and Mitigation Measure 4.7-3 would reduce potential impacts to less than significant (Class II).

The following schools would be located within one-quarter mile of Alternative 7: Landau Elementary School; Mount San Jacinto High School; and Sunny Sands Elementary School. Due to the proximity to these facilities, construction activities associated with Alternative 7 would have a greater chance of impacting existing schools. Nevertheless, as under the Proposed Project, implementation of APMs HAZ-1 through HAZ-4 would ensure that impacts associated with hazards to schools would be less than significant (Class III).

Alternative 7 would head east from the Farrell Substation, moving away from the Palm Springs Airport. The southern most portion of the alternative located along 33rd Avenue would be located within 1.5 miles of the southern end of Runway 13R. At a distance of 1.5 miles it is highly unlikely that new subtransmission line would constitute an obstacle or a potential hazard to air navigation. It can be assumed that Alternative 7 would have a less than significant impact on airport operations (Class III).

Alternative 7 would follow segments of Vista Chino, Landau Boulevard, 33rd Avenue, and Date Palm Drive, which would not be required by the Proposed Project. This alternative could result in slightly greater impacts to evacuation routes due to increased construction activities in the immediate vicinity of public roadways. Nonetheless, impacts would remain less than significant (Class III).

Alternative 7 would include construction in more developed areas than the Farrell-Garnet subtransmission line. Therefore, there would be slightly less of a wildland fire hazard under this alternative compared to the Proposed Project. However, as under the Proposed Project, impacts would be less than significant (Class III).

References – Hazards and Hazardous Materials

California Department of Forestry and Fire Protection (Cal Fire), 2008. Fire Hazard Severity Zones website (http://www.fire.ca.gov/fire_prevention/fhsz_maps/fhsz_maps_riverside_city_maps.php) accessed in June.

City of Cathedral City, 2002. Comprehensive General Plan. Adopted July 31, 2002.

City of Indian Wells, 1996. *City of Indian Wells General Plan*, adopted February 1, 1996.

City of Palm Desert, 2004. *City of Palm Desert General Plan*, adopted March 2004.

City of Palm Springs, 2007. Department of Planning Services, General Plan, Adopted October, 2007.

City of Ranch Mirage, 2005. General Plan, Adopted November 2005.

Environmental FirstSearch (FirstSearch), 2007. Track Info Services, LLC. Environmental FirstSearch Report, May 10, 2007.

Environmental FirstSearch (FirstSearch), 2009. Track Info Services, LLC. Environmental FirstSearch Report, May 22, 2009.

Riverside County, 2003. *Riverside County General Plan,* adopted October 7, 2003. http://www.rctlma.org/generalplan/index.html. Accessed June 2008.

4.8 Hydrology and Water Quality

4.8.1 Setting

Setting information in this section was compiled from field visits; the Proponent's Environmental Assessment (PEA) (SCE, 2008); scientific literature; resource agency websites and databases; California Department of Water Resources (DWR) groundwater reports; and General Plans from applicable jurisdictions.

The Proposed Project and alternatives would have components located within the cities of Palm Springs, Rancho Mirage, Cathedral City, Palm Desert, Indian Wells, as well as unincorporated areas of Riverside County, including the Thousand Palms community. The entire study area is located within the north end of the Coachella Valley. The Coachella Valley is flanked by the San Jacinto and Santa Rosa Mountains on the west and the Little San Bernardino Mountains on the east. The Coachella Valley extends to the northwest and southeast of the study area.

Hydrologic Setting

Climate and Drainage Features

Annual rainfall is very low in the study area, ranging from four to six inches per year on the desert floor. Summer temperatures can occasionally exceed 125 °F and winter temperatures seldom fall below freezing. The mountains and upper elevations of the valley are cooler, with an approximate 5 °F drop with every 1,000-foot increase in elevation. Rainfall generally occurs during the months of November through March, although short duration, high intensity storms also occur during the summer months of July through September that can cause localized flash flooding (City of Cathedral City, 2002).

The Proposed Project and alternatives would be located in the northern end of the 8,360 square mile Salton Sea watershed. The major surface water drainage feature in the study area is the Whitewater River. The Whitewater River flows to the southeast from Mount San Gorgonio into the sink formed by the Salton Sea. The major tributaries to the Whitewater River in the study area include: Tahquitz Creek; Palm Canyon Wash; Chino Canyon Creek; Snow Creek Canyon Wash; and Mission Creek (City of Palm Springs, 2007). Figure 4.8-1 shows the regional surface water features in the study area. The Whitewater River has perennial flow in the mountains, but because of diversions and percolation into the basin, the river becomes dry further downstream. The constructed downstream extension of the river channel known as the Coachella Valley Storm Water Channel, serves as a drainage way for irrigation return flows, treated community wastewater, and storm runoff (CRRWQCB, 2006).

The proposed Farrell-Garnet 115 kV subtransmission line and Alternatives 2, 3, 6, and 7 would cross the Whitewater River. The Alternative 2 and 3 alignments also cross Chino Canyon Creek, which is a tributary to the Whitewater River. The Whitewater River and Chino Canyon Creek crossings would be located in a flat and wide wash area that contains sparse vegetation.

Surface Water Quality

The water quality of the regional surface water is largely dependant upon land uses that influence runoff. Agriculture and urban development are dominant land uses in area that affect the surface water quality. Due to the dry climate, surface water streams and rivers are ephemeral and tend to only flow during rain events and following snow melt. Agriculture irrigation return flows also contribute to surface water volume and water quality. Stormwater runoff from urban and agricultural land uses can pick up pollutants that collect on the ground surface and affect water quality of receiving streams and rivers.

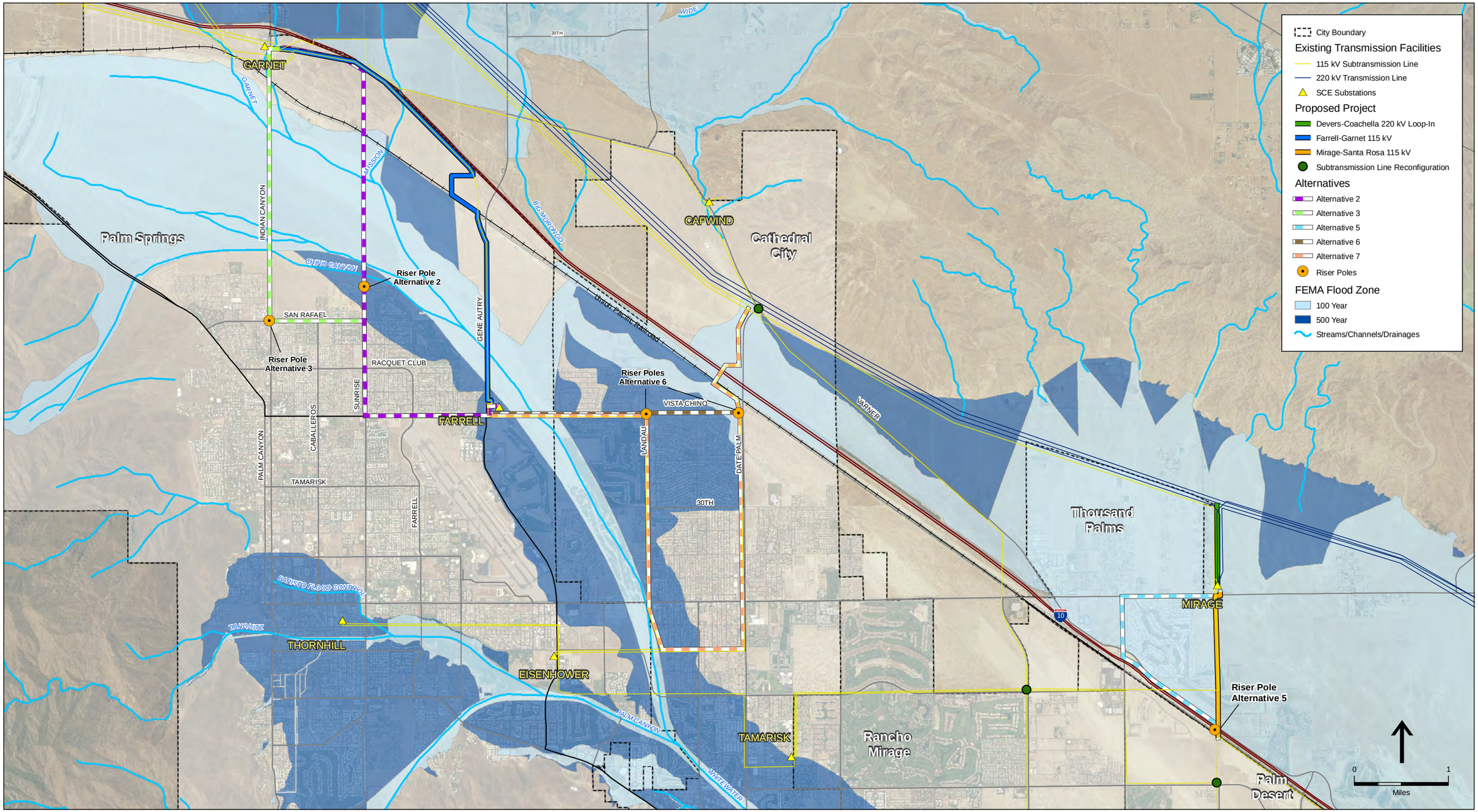
The Coachella Valley Stormwater Channel is a segment of the Whitewater River that has been lined with concrete to improve flood protection. This portion of the river is a major receiving water body for the northern portion of the Coachella Valley and the study area. The Whitewater River ultimately discharges all surface water into the Salton Sea. Both the Coachella Valley Stormwater Channel and the Salton Sea have been identified as impaired water bodies by the Colorado River Basin Regional Water Quality Control Board (CRRWQCB). These impairments are further discussed in the *Regulatory Context* section.

Flooding

Potential flooding problems in the study area are related to rises in the water level of Whitewater River and its tributaries, to storm flooding on the alluvial fans, and to runoff associated with the foothills of the Santa Rosa and Little San Bernardino Mountains. Figure 4.8-1 shows the Federal Emergency Management Agency (FEMA) mapped 100-year and 500-year flood hazard areas. The Coachella Valley Water District (CVWD) and Riverside County Flood Control District (RCFCD) are responsible for managing flood control facilities within the valley. As stated above, a lower reach of the Whitewater River was channelized to provide flood protection for people and farms in the valley. The Whitewater River is channelized downstream from Point Happy in La Quinta near State Route 111 and Washington Avenue. This channelized portion of the river is referred to as the Coachella Valley Stormwater Channel.

The Tachevah Creek Detention Reservoir and the Tahquitz Creek Debris Basin are two flood-control structures in the Palm Springs area required by the California State Water Code to be monitored for structural safety and that have the potential to pose a flood risk to the City (City of Palm Springs, 2007). The City of Palm Springs is within the dam inundation zone of these detention basins.

The Tachevah Creek Detention Reservoir, located about 1,200 feet downstream from the mouth of Tachevah Canyon, is formed by a 42-foot-high embankment constructed of compacted earth fill, and has a capacity of approximately 650 million gallons. This dam was built in 1964 and protects the highly urbanized central part of the City of Palm Springs from floods and debris flows (City of Palm Springs, 2007). No portion of the Proposed Project would be located within the identified dam inundation zone.



SOURCE: SCE, 2008; FEMA, 2005; NHD, 2002: NAIP, 2005

Devers-Mirage 115 kV Subtransmission System Split Project . 207059

Figure 4.8-1

Local Hydrology

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The Tahquitz Creek Debris Basin, which is a considerably smaller structure, was designed and constructed to reduce the risk of flooding that the Tahquitz Creek has historically posed to Palm Springs. Completed in May 1991 by the U.S. Army Corps of Engineers (USACE), the basin consists of a natural channel and dam with a debris storage capacity of about 33 million gallons and a two-mile reach of grass-lined channel used as a golf course and bicycle and equestrian trails. An inundation pathway for this dam is not available, possibly because it holds water only rarely during periods of intense and continuous rainfall. Therefore, its inundation threat is considered very low (City of Palm Springs, 2007).

Groundwater

Groundwater information was obtained from the DWR Groundwater Bulletin 118 (DWR, 2003). The Proposed Project and alternative alignments are located within the Colorado River Hydrologic Region Groundwater Basin, as delineated by the DWR. The Colorado River Hydrologic Region has been divided into smaller and more distinct basins and subbasins. The Proposed Project and alternative alignments are located within the Coachella Valley Basin. The Coachella Valley Basin is divided into four subbasins. These subbasins include Indio, Mission Creek, Desert Hot Springs, and San Gorgonio Pass. The Proposed Project and alternative alignments and sites are located within the Indio and Mission Creek subbasins.

Indio Subbasin

The Indio Subbasin (DWR groundwater basin number 7-21.01) is located in Riverside, San Diego, and Imperial Counties and has a surface area of about 336,000 acres (525 square miles). The Banning fault bounds the subbasin on the north and the semi-permeable rocks of the Indio Hills mark its northeast boundary. Impermeable rocks of the San Jacinto and Santa Rosa Mountains bound the subbasin on the south. A bedrock constriction separates the Indio Subbasin from the San Gorgonio Pass Subbasin on the northwest. The Salton Sea is the eastern boundary and the subbasin's primary discharge area. A low drainage divide forms a short boundary with the West Salton Sea Groundwater Basin in the southeast.

Surface runoff and subsurface inflow are significant sources of recharge to the subbasin. In addition, the Whitewater River spreading grounds northwest of Palm Springs receives Colorado River Aqueduct water and has a maximum capacity of 300,000 acre feet per year (af/year). Colorado River water is conveyed into the subbasin via the Coachella Canal, which also supplies a pilot recharge project facility located in the southeastern part of the subbasin.

Prior to 1949, groundwater levels steadily declined because of pumping. After 1949 and into the early 1980s, water levels in the central and southern subbasin area rose as imported Colorado River water begin to recharge parts of the subbasin; however, levels at other locations in the subbasin continued to decline. Since the 1980s, water levels in the central and southern areas have declined despite Colorado River imports. These declines are largely due to increasing urbanization and groundwater pumping.

Native groundwater in Indio Subbasin is predominantly calcium bicarbonate in character with total dissolved solids (TDS) content of 300 milligrams per liter (mg/L). Colorado River water is recharged into the subbasin at the Whitewater River spreading grounds and this water fluctuates between sodium sulfate and calcium sulfate in character. Groundwater mixing occurs adjacent to the Garnet Hill fault and near the southeast end of the Banning fault. This mixing suggests that the faults are less effective barriers to groundwater flow in the southeast than they are in the north.

A plume of high nitrate concentration (45 mg/L or greater) has been identified extending southeasterly from near Cathedral City toward the City of La Quinta. The nitrate plume is a potential threat to deeper underlying groundwater via improperly constructed, sealed, or abandoned wells.

In addition, groundwater near major faults, such as the Banning and San Andreas faults, contains elevated levels of fluoride.

Mission Creek Subbasin

The Mission Creek Subbasin (DWR groundwater basin number 7-21.02) is located in Riverside County and has a surface area is about 49,000 acres (76 square miles). The subbasin underlies the northwest portion of the Coachella Valley and is bounded by the impermeable rocks of the San Bernardino Mountains on the west and the Banning fault on the south. The Mission Creek fault bounds the northern and eastern edges of the subbasin and the Indio Hills bound the subbasin on the southeast.

Runoff from the surrounding highlands drains into the subbasin from intermittent creeks and rivers supplying most of the recharge to the subbasin. Subsurface leakage occurs across the Mission Creek Fault approximately three miles southeast from the City of Desert Hot Springs, allowing groundwater of different quality to enter the subbasin from the neighboring Desert Hot Springs Subbasin.

Water levels have been declining since the early 1950s due to groundwater extractions. Groundwater level data indicate that since 1952, water levels have declined at a rate of 0.5 feet to 1.5 feet per year. In 1971, the United States Geological Survey (USGS) recorded water levels within the subbasin and found that a semi-flat gradient existed, slowing groundwater movement. The study showed that the groundwater gradient generally moved toward the southwest. Current water levels vary in domestic wells from 140 to 721 feet below ground surface (bgs) with an average depth to water of 372 feet bgs.

Groundwater in the subbasin ranges in character from a calcium-magnesium bicarbonate type in the northwest to a sodium chloride sulfate type in the southeast. TDS content is generally below 500 mg/L.

Regulatory Context

Federal and State Water Quality Policies

The statutes that would govern the water quality aspects of the Proposed Project and alternatives include the Federal Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act (Porter-Cologne); these acts provide the basis for water quality regulation in the study area.

The California legislature has assigned the primary responsibility to administer regulations for the protection and enhancement of water quality to the California State Water Resources Control Board (SWRQB) and the Regional Water Quality Control Boards (RWQCB). The SWRCB provides State-level coordination of the water quality control program by establishing statewide policies and plans for the implementation of State and federal regulations. Nine RWQCBs throughout California adopt and implement water quality control plans (basin plans) that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The Proposed Project and alternatives alignments and sites are located within the CRRWQCB jurisdiction.

Section 404 of the Clean Water Act established a program to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. The USACE has primary federal responsibility for administering Section 404. Activities in waters of the U.S. regulated under this program include the placement of fill for development, water resource, infrastructure, and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the U.S.

Section 401 of the CWA provides the authority for the State-operated 401 Certification Programs. The 401 certification process is used by the State to evaluate potential effects of projects requiring Section 404 permits.

Beneficial Use and Section 303(d)

The CRRWQCB is responsible for the protection of the beneficial uses of waters within the study area. The CRRWQCB uses planning, permitting, and enforcement authorities to meet this responsibility and has adopted the Regional Water Quality Control Plan for the Colorado River Region (Basin Plan) to implement plans, policies, and provisions for water quality management. The most recent revision to the Basin Plan was adopted in June of 2006 (CRRWQCB, 2006).

In accordance with State policy for water quality control, the CRRWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. The beneficial uses designated in the Basin Plan for the water bodies relevant to the study area are identified in Table 4.8-1. The applicable beneficial use categories are defined in Table 4.8-2. The Basin Plan also includes water quality objectives for each of the identified beneficial uses.

TABLE 4.8-1
WHITEWATER HYDROLOGIC UNIT BENEFICIAL USES[a]

Waterbody	MUN	AGR	AQUA	FRSH	IND	GWR	REC 1	REC 2	WARM	COLD	WILD	POW	RARE
Whitewater River[b]	E	E				E	E	E	I	E	E	E	
Coachella Valley Stormwater Channel				E			E[c]	E[c]	E		E		E[d]
Salton Sea			E		P		E	E	E		E		E
Chino Canyon Creek	E					E	P	E	E		E		
Mission Creek	P	E				E	E	E	E		E		
Palm Canyon Creek	P	E				E	E	E	E		E		
Snow Creek	E					E	E	E[e]		E	E		
Tahquitz Creek	P					E	E	E		E	E		

E = existing beneficial use
I = intermittent use
P = potential beneficial use

[a] Refer to Table 4.8-2, below, for definition of abbreviations
[b] Includes the section of flow from the headwaters in the San Gorgonio Mountains to (and including) the Whitewater Recharge Basins near the Indian Canyon Drive crossing in Palm Springs.
[c] Unauthorized Use
[d] Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by-case basis is upon the California Department of Fish and Game on its own initiative and/or at the request of the CRRWQB; and such substantiation must be provided within a reasonable time frame as approved by the CRRWQB.
[e] Most of the creek is on National Forest Service land except one section which is owned by Desert Water Agency (DWA). This section provides the only reasonable access to the area. To enter Falls or Snow Creek through DWA's land, a permit is required. The permit stipulates that persons entering through DWA's land must agree not to swim, fish, or wade in any portion of the creek.

SOURCE: CRRWQCB, 2006.

Furthermore, under Section 303(d) of the 1972 CWA, the State of California is required to develop a list of quality impaired water bodies that do not meet water quality standards and objectives and are not supporting their beneficial uses. The law requires states to establish priority ranking for water bodies on the lists and establish Total Maximum Daily Loads (TMDLs), to address the impairment. A TMDL serves as the means to attain and maintain water quality standards (WQSs) for the impaired water body. A statewide list of impaired water bodies was first established in 1998 and subsequently has been updated to include more recent information and new pollutants. Table 4.8-3 provides a list of impaired waters, as designated by the CRRWQCB, relevant to the study area along with the corresponding pollutant(s) and issue(s) of concern.

NPDES Program (CWA Section 402)

The CWA was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added section 402(p), which establishes a framework for regulating municipal and industrial storm water discharges under the NPDES Program. In November 1990, the

TABLE 4.8-2
DEFINITIONS OF BENEFICIAL USES OF SURFACE WATERS

Beneficial Use	Description
Municipal and Domestic Supply (MUN)	Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.
Agricultural Supply (AGR)	Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
Aquaculture (AQUA)	Uses of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes.
Freshwater Replenishment (FRSH)	Uses of water for natural or artificial maintenance of surface water quantity or quality.
Industrial Service Supply (IND)	Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, and or oil well repressurization.
Groundwater Recharge (GWR)	Uses of water for natural or artificial recharge or groundwater for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
Water Contact Recreation (REC 1)	Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white-water activities, fishing, or use of natural hot springs.
Non-Contact Water Recreation (REC 2)	Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
Warm Freshwater Habitat (WARM)	Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
Cold Freshwater Habitat (COLD)	Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
Wildlife Habitat (WILD)	Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.
Hydropower Generation (POW)	Uses of water for hydropower generation.
Rare, Threatened, or Endangered Species (RARE)	Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under State or federal laws as rare, threatened, or endangered.

SOURCE: CRRWQCB, 2006.

TABLE 4.8-3
2006 CWA SECTION 303(D)
LIST OF WATER QUALITY LIMITED SEGMENTS IN THE STUDY AREA

Name	Pollutant/Stressor	Source	TMDL Completion Date
Coachella Valley Storm Water Channel	Pathogens[a]	Unknown	2006
	Toxaphene[b]	Unknown	2019
	DDT[b]	Unknown	2021
	Dieldrin[b]	Unknown	2021
	PCBs (Polychlorinated biphenyls)[b]	Unknown	2021
Salton Sea	Nutrients	Major Industrial Point Source Agricultural Return Flows Out-of-State Sources	2006
	Salinity	Agricultural Return Flows Out-of-State Sources Point Source	Not Applicable[c]
	Selenium	Agricultural Return Flows	2019
	Arsenic	Unknown	2021
	Chloropyrifos	Unknown	2021
	DDT	Unknown	2021
	Enterococcus	Unknown	2021

[a] This listing for pathogens only applies to a 17-mile area of the Coachella Valley Storm Water Channel from Dillion Road to the Salton Sea.
[b] This listing for toxaphene only applies to a two mile area of the Coachella Valley Storm Water Channel from Lincoln Street to the Salton Sea.
[c] TMDL development will not be effective in addressing this problem, which will require an engineering solution with federal, local, and State cooperation

SOURCE: CRRWQCB, 2007 and 2009.

U.S. Environmental Protection Agency (USEPA) published final regulations that establish storm water permit application requirements for discharges of storm water to waters of the United States from construction projects that encompass five or more acres of soil disturbance. Regulations (Phase II Rule) that became final on December 8, 1999, expanded the existing NPDES Program to address storm water discharges from construction sites that disturb land equal to or greater than one acre and less than five acres (small construction activity).

General Construction Permit (Order 99-08-DWQ)

While federal regulations allow two permitting options for storm water discharges (individual permits and General Permits), the SWRCB has chosen to adopt only one statewide General Permit at this time that would apply to all storm water discharges associated with construction activity.[1] This General Permit requires all dischargers where construction activity disturbs one acre or more, to:

[1] SWRCB Order No. 99-08-DWQ National Pollutant Discharge Elimination System General Permit No. CAS000002.

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP), which specifies Best Management Practices (BMPs) that would prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving off site into receiving waters.

- Eliminate or reduce non-storm water discharges to storm sewer systems and other waters of the nation.

- Perform inspections of all BMPs.

This General Permit is implemented and enforced by the nine RWQCBs. The CRRWQCB administers the stormwater permitting program in the section of Riverside County that includes the study area. Dischargers are required to submit a Notice of Intent (NOI) to obtain coverage under this General Permit and annual reports identifying deficiencies of the BMPs and how the deficiencies were corrected. Dischargers are responsible for notifying the relevant RWQCB of violations or incidents of non-compliance.

On August 19, 1999, the SWRCB reissued the General Construction Storm Water Permit (Water Quality Order 99-08-DWQ, referred to as "General Permit"). In September 2000, a court decision directed the SWRCB to modify the provisions of the General Permit to require permittees to implement specific sampling and analytical procedures to determine whether BMPs implemented on a construction site are: (1) preventing further impairment by sediment in storm waters discharged directly into waters listed as impaired for sediment or silt, and (2) preventing other pollutants, that are known or should be known by permittees to occur on construction sites and that are not visually detectable in storm water discharges, from causing or contributing to exceedances of water quality objectives. The monitoring provisions in the General Permit have been modified pursuant to the court order.

If the project is approved, SCE will submit an NOI to the SWRCB and obtain coverage under the General Permit. The preparation of a SWPPP would be required in accordance with the General Permit. The SWPPP would include, but not be limited to, relevant measures, conditions, and obligations which would reduce the impacts of construction activities on stormwater and receiving water quality and quantity.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (codified in the California Water Code, §13000 *et seq*.) is the basic water quality control law for California. As mentioned above, it is implemented by the SWRCB and the nine RWQCBs. The SWRCB establishes statewide policy for water quality control and provides oversight of the operations of the RWQCBs. The RWQCBs have jurisdiction over specific geographic areas that are defined by watersheds. The portion of Riverside County that includes the Proposed Project and alternative alignments and sites is under the jurisdiction of the CRRWQCB. In addition to other regulatory responsibilities, the RWQCBs have the authority to conduct, order, and oversee investigation and cleanup where discharges or threatened discharges

of waste to waters of the State[2] could cause pollution or nuisance, including impacts to public health and the environment.

Dredge/Fill Activities and Waste Discharge Requirements

Actions that involve or are expected to involve dredge or fill, and discharge of waste, are subject to water quality certification under section 401of the CWA and/or waste discharge requirements under the Porter-Cologne Act. The SWRCB's Division of Water Rights processes section 401 water quality certifications on projects that involve water diversions (California Code of Regulations, title 23, § 3855). Chapter 4, Article 4 of the Porter-Cologne Act (California Water Code, § 13260-13274), states that persons discharging or proposing to discharge waste that could affect the quality of waters of the State (other than into a community sewer system) shall file a Report of Waste Discharge with the applicable RWQCB. For discharges directly to surface water (waters of the United States) an NPDES permit is required, which is issued under both State and federal law; for other types of discharges, such as waste discharges to land (e.g., spoils disposal and storage), erosion from soil disturbance, or discharges to waters of the State (such as isolated wetlands), Waste Discharge Requirements (WDRs) are required and are issued exclusively under State law. The WDR application process is generally the same as for CWA section 401 water quality certification, though in this case it does not matter whether the particular project is subject to federal regulation. SCE would contact the CRRWQCB and file a Report of Waste Discharge; the CRRWQCB would then determine whether an issuance or a waiver of WDR would be required.

Riverside County

The Riverside County General Plan includes general polices relating to hydrology, water resources, water quality, and flooding. Following are polices that may be applicable to the Proposed Project and alternatives (Riverside County, 2003):

> *Policy OS 2.2*: Where feasible, decrease stormwater runoff by reducing pavement in development areas, and by design practices such as permeable parking bays and porous parking lots with bermed storage areas for rainwater detention.
>
> *Policy OS 3.3*: Minimize pollutant discharge into storm drainage systems and natural drainage and aquifers.
>
> *Policy OS 4.4*: Incorporate natural drainage systems into developments where appropriate and feasible.
>
> *Policy OS 5.3*: Based upon site, specific study, all development shall be set back from the floodway boundary a distance adequate to address the following issues: a) public safety; b) erosion; c) riparian or wetland buffer; d) wildlife movement corridor or linkage; and e) slopes.

[2] "Waters of the state" are defined in the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code, § 13050 (e))

Policy OS 5.5: New development shall preserve and enhance existing native riparian habitat and prevent obstruction of natural watercourses. Incentives shall be utilized to the maximum extent possible.

Policy S 4.1: For new construction and proposals for substantial improvements to residential and nonresidential development within 100-year floodplains as mapped by FEMA or as determined by site specific hydrologic studies for areas not mapped by FEMA, the County shall apply a minimum level of acceptable risk; and disapprove projects that cannot mitigate the hazard to the satisfaction of the Building Official or other responsible agency.

Policy S 4.2: Enforce provisions of the Building Code in conjunction with the following guidelines:

a. All residential, commercial and industrial structures shall be flood-proofed from the 100-year storm flow, and the finished floor elevation shall be constructed at such a height as to meet this requirement. Critical facilities should be constructed above grade to the satisfaction of the Building Official, based on federal, state, or other reliable hydrologic studies.

b. Critical facilities shall not be permitted in floodplains unless the project design ensures that there are two routes for emergency egress and regress, and minimizes the potential for debris or flooding to block emergency routes, either through the construction of dikes, bridges, or large-diameter storm drains under roads used for primary access.

c. Development using, storing, or otherwise involved with substantial quantities of onsite hazardous materials shall not be permitted, unless all standards for evaluation, anchoring, and flood-proofing have been satisfied; and hazardous materials are stored in watertight containers, not capable of floating, to the extent required by state and federal laws and regulations.

d. Specific flood-proofing measures may require: use of paints, membranes, or mortar to reduce water seepage through walls; installation of water tight doors, bulkheads, and shutters; installation of flood water pumps in structures; and proper modification and protection of all electrical equipment, circuits, and appliances so that the risk of electrocution or fire is eliminated. However, fully enclosed areas that are below finished floors shall require openings to equalize the forces on both sides of the walls.

Policy S 4.5: Prohibit substantial modification to water courses, unless modification does not increase erosion or adjacent sedimentation, or increase water velocities, so as to be detrimental to adjacent property, nor adversely affect adjacent wetlands or riparian habitat.

Policy S 4.7: Any substantial modification to a watercourse shall be done in the least environmentally damaging manner possible in order to maintain adequate wildlife corridors and linkages and maximize groundwater recharge.

Policy S 4.8: Allow development within the floodway fringe, if the proposed structures can be adequately flood-proofed and will not contribute to property damage or risks to public safety.

Policy S 4.9: Within the floodway fringe of a floodplain as mapped by FEMA or as determined by site specific hydrologic studies for areas not mapped by FEMA, require

development to be capable of withstanding flooding and to minimize use of fill. However, some development may be compatible within flood plains and floodways, as may some other land uses. In such cases, flood proofing would not be required. Compatible uses shall not, however, obstruct flows or adversely affect upstream or downstream properties with increased velocities, erosion backwater effects, or concentrations of flows.

City of Palm Springs

The City of Palm Springs General Plan includes the following goal and polices related to hydrology and water quality that may be applicable to the Proposed Project and alternatives (City of Palm Springs, 2007):

Goal SA3: Reduce, to the greatest extent possible, the risk of life, property, and essential facilities from flooding and other hydrological hazards within the City.

Policy SA3.2: Evaluate all development proposals located in areas that are subject to flooding to minimize the exposure of life and property to potential flood risks.

Policy SA3.4: Continue to work with the Federal Emergency Management Agency, Riverside County Flood Control and Water Conservation District, the Coachella Valley Water District, and the United States Army Corps of Engineers to receive and implement updated flood-control measures and information.

Policy SA3.8: Implement the regulations of the City of Palm Springs Flood Damage Prevention Ordinance (sections 93.17.00 et seq) to minimize public and private losses for properties within the 100-year flood zone area.

Policy RC9.5: Protect the quality and quantity of water from adverse impacts of development activities so that sufficient water is available to sustain habitats and wildlife.

City of Indian Wells

The City of Indian Wells General Plan includes the following goal and policy related to hydrology and water quality that may be applicable to the Proposed Project and alternatives (City of Indian Wells, 1996):

Goal IIIA5: Conserve and protection of surface waters, groundwater, and imported water resources.

Policy IIIA5.4: Minimize soil erosion through conservation of native vegetation, use of permeable ground materials, and careful regulation of grading practices.

City of Rancho Mirage

The City of Rancho Mirage General Plan includes the following policy related to hydrology and water quality that may be applicable to the Proposed Project and alternatives (City of Rancho Mirage, 2005):

Policy 2: The City shall evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non point sources and confer with other appropriate agencies to assure adequate review.

City of Cathedral City

The City of Cathedral City General Plan includes the following goal and policy related to hydrology and water quality that may be applicable to the Proposed Project and alternatives (City of Cathedral City, 2002):

> *Goal*: The provisions of adequate facilities to protect lives and property from local and regional flooding hazards.
>
> *Policy 6*: All new development shall be required to incorporate adequate flood mitigation measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the adequate siting and sizing of structures located within flood plains.

4.8.2 Significance Criteria

Significance criteria, or thresholds, listed in Appendix G of the CEQA Guidelines area used to determine the significance of potential impacts due to the Proposed Project. Based on these criteria, a project would have a significant hydrology- or water quality-related effect on the environment if it would:

a) Violate any water quality standards or waste discharge requirements;

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);

c) Substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or sedimentation on- or off-site;

d) Substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

f) Substantially degrade water quality;

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or

j) Inundation by seiche, tsunami, or mudflow.

Some of the criteria listed in Appendix G of the CEQA Guidelines are not directly applicable to the Proposed Project and alternatives, or otherwise do not merit further discussion. For example, the study area is not subject to inundation by seiche, tsunami, or mudflow; therefore, impacts associated with criterion j) are not addressed further in this EIR. Further, all potential impacts of the Proposed Project and alternatives upon water quality are addressed within the context of criterion a). Criterion a) includes all applicable federal, State, and local water quality standards or waste discharge requirements. Further, the CRRWQCB water quality standards and objectives are protective of a wide range of beneficial uses within all areas of the Proposed Project and alternative alignments and sites (CRRWQCB, 2006). Resultantly, potential water quality impacts outside of those addressed by criterion a) are not applicable to the Proposed Project and alternatives and, consequently, impacts related to otherwise degrading water quality (criterion f)) are not addressed further in this EIR.

In addition, the Proposed Project and alternatives would not have an impact upon flooding, and the various criteria (d), e), g), and i)) related to flooding or stormwater drainage systems, are subsequently not applicable in this case. Neither the Proposed Project nor the alternatives would place housing within a 100-year flood hazard area, nor would they expose people or structures to a significant risk of loss, injury, or death involving flooding (e.g., any existing risk concerning flooding would not be exacerbated by the Proposed Project or the alternatives). The Proposed Project and alternatives would not increase the rate or amount of surface runoff such that it would result in substantial flooding. Regarding criterion e), there is no potential for the Proposed Project and alternatives to impact stormwater drainage systems or provide additional sources of polluted runoff not addressed in the context of the other criteria. All potential impacts concerning runoff and erosion resulting from implementation of the Proposed Project or alternatives are addressed under criteria a) and c).

4.8.3 Applicant Proposed Measures

SCE standard construction and operation protocols would be followed and all new site drainage installations would be consistent with NPDES and SWPPP. In addition, SCE has committed to implementing the following applicant proposed measures (APMs) as part of the Proposed Project.

APM HYDRO-1. Grading Activities. Grading activities would not commence if heavy rain is forecasted for the period of time of major earthmoving activities through compaction and stabilization of the site.

APM HYDRO-2A. Erosion Control and Drainage Plan. An engineered erosion control and drainage plan would be developed as part of the site grading plan. The plan would be developed in accordance with the County of Riverside Hydrology Manual and would address all construction activities associated with the project. The location of the discharge of site runoff for construction would be defined in final engineering and in consultation with Riverside County, the RWQCB, and the CDFG.

APM HYDRO-2B. Construction Erosion Control Plan. SCE shall develop an erosion control plan incorporating construction-phase measures to limit and control erosion and siltation. The erosion control plan shall include components such as phasing of grading, limiting areas of disturbance, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, and provision for revegetation or mulching. The plan shall also prescribe treatment measures to trap sediment once it has been mobilized, at a scale and density appropriate to the size and slope of the catchment.

APM HYDRO-2C. Environmental Training Program. An environmental training program would be established to communicate environmental concerns and appropriate work practices, including spill prevention and response measures, to all field personnel involved in the construction of the Proposed Project elements. A monitoring program would be implemented to ensure that the plans are followed throughout the period of construction.

APM HYDRO-3. Access Road Location. Prior to final engineering of the proposed access road, SCE would consult with Riverside County, CDFG, and the RWQCB regarding the location of the access road.

APM HYDRO-4. Hazardous Substance Control and Emergency Response Plan. SCE would prepare a Hazardous Substance Control and Emergency Response Plan, which would include preparations for quick and safe cleanup of accidental spills. This plan would be submitted to agencies with the grading permit application. It would prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and would include an emergency response program to ensure quick and safe cleanup of accidental spills. The plan would identify areas where refueling and vehicle maintenance activities and storage of hazardous materials, if any, would be permitted. Oil-absorbent materials, tarps, and storage drums would be used to contain and control any minor releases of mineral oil.

4.8.4 Impacts and Mitigation Measures

Impacts on hydrology and water quality could result from ground-disturbing activities that could result in on- or off-site erosion or sedimentation. Construction equipment would use oils and fuels that could be spilled or leaked and introduced into nearby water bodies. In addition, construction within the Whitewater River and other flood hazard areas could result in flood water impediments and or inundation. Although the APMs outlined above would reduce impacts to hydrology and water quality, additional measures are recommended, where applicable, to ensure that impacts would be reduced to less than significant levels.

a) Violate any water quality standards or waste discharge requirements.

Dewatering activities have the potential to induce erosion and cause sediment or contaminated water or soils to be delivered on nearby surface waterways, thereby degrading water quality. Given that the most shallow groundwater depth in the project area is approximately 140 feet bgs and that the proposed excavations for tubular steel pole (TSP) installation would not exceed 25 feet in depth, it is highly unlikely that groundwater would be encountered during construction. Therefore, impacts from dewatering during construction are not anticipated (No Impact).

Impact 4.8-1: Construction activities could result in increased erosion and sedimentation and/or pollutant (e.g., fuel and lubricant) loading to surface waterways, which could increase turbidity, suspend soils, or otherwise decrease water quality in surface waterways. *Less than significant* (Class III)

Construction activities associated with the Proposed Project could increase the turbidity or otherwise degrade the water quality of receiving stream channels or other surface waterways. Activities that disturb the ground near or within a stream channel (e.g., clearing, grading, and drilling) could make soils and sediments more susceptible to erosion by altering their existing structure or state. Depending on the distance and ground slope, some portion of the eroded material could eventually be delivered to a receiving stream channel or other type of waterway over a relatively short time period (e.g., during the next rain event). In this case, increased erosion rates would likely lead to increased sediment concentrations and turbidity levels in the receiving stream channel and have a potentially adverse impact on the beneficial uses identified by the CRRWQCB (2006). Further, moderate increases in surface runoff from construction areas could initiate or exacerbate an erosion and sediment delivery problem. An increase in the runoff rate from a construction area may result from temporarily decreasing ground surface resistance to overland flow (e.g., clearing of native vegetation or slope grading), decreasing the infiltration capacity of the soil by means of compaction (e.g., with heavy equipment), or by increasing the velocity of runoff (e.g., concentrating flow into manmade features or into existing rills or gullies). In addition, if construction equipment or workers inadvertently release pollutants (e.g., hydraulic fluid or petroleum) on site, these compounds could be entrained by runoff and discharged into receiving channel(s) causing water quality degradation. The extent of erosion or pollution that could occur at any given construction site varies depending on soil type, vegetation/cover, and weather conditions.

Most elements of the Proposed Project that would require construction involve only short-term (i.e., within a single season) construction activities, and thus the associated potential impacts would be short-lived in nature. Actions associated with the Proposed Project that include notable construction components include removal of wood poles and lattice steel towers, installation of new TSPs, light weight steel (LST) poles, and lattice steel towers, preparation of wire stringing sites, installation of access roads, and development of material staging yards. Specific construction activities referenced under this potential impact include, but are not limited to, clearing and grading, excavation work, and the stockpiling of soil or sediments. The Proposed Project would disturb a large area overall; however, the area of disturbance would not be concentrated in one or two locations, but rather spread throughout the entire Proposed Project area at discrete locations along the alignments. Therefore, the magnitude of the overall potential impact with respect to erosion and sediment delivery would be easier to control or prevent. Nevertheless, the Proposed Project would traverse the floor of the Coachella Valley, where soil erosion ratings vary from slight to extreme, therefore increasing the risk of soil erosion.

SCE has committed to implementing construction practices and regulatory requirements intended to control erosion and protect surface water. As part of its standard construction practices, SCE would develop and implement a specific erosion control and drainage plan, and implement surface water protection methods, or Best Management Practices (BMPs), for each construction

activity conducted as part of the Proposed Project (see APMs HYDRO-1 through HYDRO-4, above). In addition, SCE would be required to obtain and comply with the NPDES General Permit, which requires development and implementation of a SWPPP for the Proposed Project. The General Permit also includes provisions for inspecting the implementation of BMPs and monitoring their performance. Implementation of the APMs and compliance with the State requirement to prepare and implement a SWPPP and necessary waste discharge requirements would ensure impacts to water quality associated with construction of the Proposed Project would be less than significant.

Mitigation: None required.

Impact 4.8-2: Operation and maintenance of the Proposed Project could result in increased erosion and sedimentation loading to surface waterways, which could increase turbidity, suspend soils, or otherwise decrease water quality in surface waterways. *Less than significant* (Class III)

Maintenance activities associated with the Proposed Project could increase the turbidity within receiving stream channels or other surface waterways. Approximately 0.6 mile of new access roads and 0.1 mile of new spur roads would be constructed in association with the portion of the proposed Farrell-Garnet line that would require new ROW, north of the Union Pacific Railroad (UPRR). In addition, existing access roads would be cleared and re-compacted during construction and approximately 1,320 linear feet of new permanent access roads would be constructed in association with the Devers-Coachella Valley 220 kV Loop-In. In general, roads commonly lead to increases in the volume of surface runoff as well as increases in erosion and sediment delivery. This is attributable to the fact that road installation substantially reduces the infiltration capacity of soils and disturbs the existing soil structure, making the soil more susceptible to erosion and entrainment by runoff. The beneficial uses of the surface water channels within the Proposed Project area are protected by the water quality standards outlined in the Basin Plan (CRRWQCB, 2006); these beneficial uses could be adversely affected by increased sedimentation and turbidity levels resulting from the erosion and delivery of sediment from the proposed new access roads.

Potential surface water quality impacts from maintenance activities are somewhat different with respect to the existing requirements for water quality protection. The existing measures required of SCE (e.g., the General Permit) are sufficient to reduce potential construction-related water quality impacts to a less than significant level; however, with respect to potential impacts associated with the proposed new access roads, the required measures are not necessarily sufficient. Nevertheless, as discussed in Chapter 2, *Project Description*, drainage structures (e.g., wet crossings, water bars, over side drains, pipe culverts, and energy dissipaters) would be installed on new and existing access roads utilized by the Proposed Project in order to prevent erosion from uncontrolled water flow. Furthermore, implementation of APM HYDRO-3 would require that SCE consult with Riverside County, CDFG, and the RWQCB regarding the location of access roads and would ensure that impacts would be less than significant.

Mitigation: None required.

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b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge.

Impact 4.8-3: Proposed Project operations could affect the local groundwater aquifer by introducing impervious surfaces that could reduce groundwater recharge. ***Less than significant*** **(Class III)**

The Proposed Project would introduce new impervious surfaces in the Coachella Valley through the construction of new access roads, a substation driveway, new lattice tower and pole foundations, and new foundations at substations to support new electrical components. These project components would require soil compaction and installation of concrete foundations. Compacted soil and concrete would prevent precipitation from infiltrating into the otherwise highly permeable soils of the valley. Large areas of impervious surfaces can prevent precipitation infiltration and reduce groundwater aquifer inflows.

The Proposed Project would be located over two defined groundwater subbasins within the larger Coachella Valley groundwater basin. As described above and reported by DWR, these two subbasins (Indio and Mission Creek) are principally recharged from seasonal runoff drainage from the nearby mountains which percolates through alluvial fan deposits and from highland runoff into intermittent creeks and rivers. With the exception of one proposed pole replacement within the Whitewater River, the Proposed Project would not affect alluvial fans or intermittent creeks. Therefore, the Project would not have an impact on the principal groundwater recharge areas. The pole replacement would have no greater groundwater recharge interference than the existing condition. The surface area of the proposed access roads, driveways, and electrical component foundations would only represent a fraction of the total surface area of these groundwater subbasins. The small increase in impervious areas, relative to the size of the subbasin surface areas, would ensure the Proposed Project would not affect the level of the local groundwater table. Impacts would be less than significant.

Mitigation: None required.

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c) Substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or sedimentation on- or off-site.

Impact 4.8-4: Proposed Project construction activities could impact local drainage patterns, or the course of a given stream, resulting in substantial on- or off-site erosion or sedimentation. ***Less than significant with mitigation*** **(Class II)**

The proposed Farrell-Garnet 115 kV subtransmission line would require temporary access to the Whitewater River wash by construction equipment during the removal and installation of the

proposed pole replacements. This activity could impact the drainage pattern of the river and result in substantial on- or off-site erosion or sedimentation. All other Proposed Project components would be located well outside of a defined stream or river channel and therefore would not have the potential to alter the course of any such stream or river or result in on- or off-site erosion or sedimentation.

The Whitewater River is a jurisdictional wetland as defined by the CWA, and impacts to this potentially jurisdictional feature would regulated under a CWA Section 401 permit from the RWQCB, and a CWA section 404 permit from the USACE. Implementation of Mitigation Measure 4.4-10 (see Section 4.4, *Biological Resources*) would require SCE to perform a wetland delineation and to modify the Proposed Project whenever feasible in order to minimize disturbance to the Whitewater River. This river is also a water of the State; therefore, construction activities would be required to comply with the State Porter Cologne Water Quality Control Act. Compliance with this act is achieved by obtaining waste discharge requirement and construction activity permit coverage from the CRRWQCB. The APMs listed above would also be implemented to reduce erosion and sedimentation. However, the following mitigation measures are intended to strengthen the intent and add specific requirements to APMs HYDRO-1 and HYDRO-2A. This impact would be less than significant with implementation of the following mitigation measures.

> **Mitigation Measure 4.8-4a:** In addition to measures required by APM HYDRO-1, SCE shall ensure that the construction foreman checks daily weather forecasts when construction is occurring within the Whitewater River Wash. Any precipitation forecast shall require the construction contractor to ensure erosion control BMPs identified in the SWPPP are properly installed and shall ensure that the construction site is clear of equipment and debris.
>
> **Mitigation Measure 4.8-4b**: Regarding the engineered erosion control and drainage plan developed as part of the site grading plan (APM HYDRO-2A), SCE shall conduct a topographic and gradient survey of the Whitewater River Wash both upstream and downstream of the proposed pole(s) replacement location within the wash. Post construction topography and gradient of the Whitewater River Wash shall be contoured to match the existing conditions, to ensure that the drainage pattern is not altered in a manner that would cause on- or off-site erosion or sedimentation.

Significance after Mitigation: Less than Significant.

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h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

Impact 4.8-5: Construction of the Proposed Project would place facilities within a 100-year flood hazard area that could impede or redirect flood water. *Less than significant* (Class III)

The Proposed Project includes the replacement of existing subtransmission and transmission line support poles and towers and upgrades to the Mirage Substation within 100-year flood hazard areas.

The proposed pole and tower replacements would not result in a substantial change to existing structures within the 100-year flood hazard areas such that flood waters would be impeded or redirected, causing flooding hazards at other locations. Moreover, the potential to impede flood flows from the proposed pole and tower replacements would not exacerbate the hazard that currently exists. Impacts from the proposed pole and tower replacements regarding flood water redirection would be less than significant.

The proposed electrical upgrades at the existing Mirage Substation would result in limited site grading, foundation construction, and the installation of substation electrical support components. These components would be constructed outside and mounted to new foundation. There would be no walls, buildings, or other barriers constructed as part of the Proposed Project that would impede or redirect flood waters. A limited amount of water displacement could occur from the mounted electrical components but this displacement would not significantly impede or redirect flood waters. Impacts would be less than significant.

Mitigation: None required.

4.8.5 Cumulative Impacts

This Proposed Project along with other projects occurring in the area would be required to comply with applicable federal, State, and local water quality regulations. The Proposed Project, along with other projects over one acre in size, would be required to obtain coverage under the General Permit. Storm water management measures would be required to be identified and implemented that would effectively control erosion and sedimentation and other construction related pollutants during construction. Other management measures, such as construction of infiltration/detention basins, would be required to be identified and implemented that would effectively treat pollutants that would be expected for the post-construction land use for certain projects.

Construction and operational related stormwater runoff from the Proposed Project would be controlled by the requirements of the NPDES permit. Other new development in the area would also be required to control construction and operational stormwater by implementing State and local requirements regarding hydrology and water quality. Furthermore, the APMs and mitigation measures described above would ensure that the Proposed Project impacts to hydrologic resources and water quality would be less than cumulatively considerable. Therefore, the cumulative impact of the Proposed Project, in combination with other reasonably foreseeable projects, would be less than significant with mitigation (Class II).

4.8.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

In general, construction associated with the No Project Alternative would likely result in potential impacts that are similar to what would occur under the Proposed Project. If the No Project Alternative would require significantly greater amounts of earth disturbance or result in significantly more new access roads and new ROW, potential impacts from construction and maintenance on water quality would be greater than those associated with the Proposed Project. Nevertheless, with implementation of measures similar to APMs HYDRO-1 through HYDRO-4, impacts would likely be less than significant.

Impacts to local groundwater recharge associated with the No Project Alternative could be higher than those associated with the Proposed Project if the alternative would introduce significantly more impervious services to the study area. However, given the typical nature of transmission infrastructure, it is unlikely that the No Project Alternative would result in a significant unmitigable impact. Additional mitigation could be required however, depending on the extent of such impacts.

Depending on the location of the No Project Alternative, a number of drainages or streams within the study area could be impacted. However, such impacts would likely be mitigable through implementation of APMs and mitigation measures similar to those described above for the Proposed Project.

Similar to the Proposed Project, the No Project Alternative would be unlikely to include facilities that could impede or redirect flood waters associated with a 100-year flood hazard area. However, since the infrastructure required under the No Project Alternative has not been defined, such impacts would need to be evaluated prior to implementation of any project.

Alternative 2

In general, the potential impacts to hydrology and water quality resulting from the implementation of Alternative 2 would be the same as for the Proposed Project. However, some differences in the extent of the potential impacts should be noted.

Alternative 2 would require installation of three miles of underground subtransmission line along Vista Chino and North Sunrise Way. Trenching for the underground portion of the alternative

would require larger construction crews, more equipment usage, and a greater amount of soil disturbance compared to the proposed Farrell-Garnet subtransmission line. As a result, impacts to water quality from construction of Alternative 2 would be higher than those anticipated from the Proposed Project; nevertheless, such impacts would be less than significant due to the implementation of APMs HYDRO-1 through HYDRO-4 (Class III).

While Alternative 2 would require a large amount of trenching, groundwater is not expected to be encountered during the trenching activities given the relatively shallow depth of the trench (five feet). Installation of vaults may require trenching to a depth of up to 10 feet. Given that the depth to groundwater in the study area is approximately 140 feet bgs at its most shallow locations, it is highly unlikely that groundwater seepage would occur from underground line or pole construction. Therefore, dewatering during construction is not anticipated (No Impact).

Installation of the underground subtransmission line associated with Alternative 2 would result in more compacted soil than the Proposed Project. Compacted soil can prohibit precipitation infiltration and affect groundwater reservoirs. However, soil compaction would occur under road surfaces that are currently impermeable. Similar to the Proposed Project, the poles that would be installed under Alternative 2 would not be expected to interfere with groundwater recharge such that there would be a net deficit in aquifer volume (Class III).

As with the Proposed Project, Alternative 2 would cross the Whitewater River. Furthermore, this alternative would also cross Chino Canyon Creek. Therefore, construction activities associated with Alternative 2 could alter an existing drainage pattern in a manner that could result in erosion or sedimentation. However, as with the Proposed Project, implementation of APM HYDRO-1 and HYDRO-2A as well as Mitigation Measures 4.8-4a and 4.8-4b would reduce potential impacts to less than significant (Class II).

The portion of the Alternative 2 alignment located between Chino Canyon Creek and the UPRR would be within a 100-year flood hazard area. However, as with the Proposed Project, pole replacement associated with this segment of Alternative 2 would not exacerbate existing flood hazards and impacts would be less than significant (Class III).

Alternative 3

In general, the potential impacts to hydrology and water quality resulting from the implementation of Alternative 3 would be the same as for the Proposed Project. However, some differences in the extent of the potential impacts should be noted.

Alternative 3 would require installation of 3.6 miles of underground subtransmission line along Vista Chino, North Sunrise Way, San Rafael Drive, and Indian Canyon Drive. Trenching for the underground portion of the alternative would require larger construction crews, more equipment usage, and a greater amount of soil disturbance than the Proposed Project. As a result, impacts to water quality from construction of Alternative 3 would be higher than those anticipated from the Proposed Project; nevertheless, such impacts would be less than significant with implementation of APMs HYDRO-1 through HYDRO-4 (Class III).

While Alternative 3 would require a large amount of trenching, groundwater is not expected to be encountered during the trenching activities given the relatively shallow depth of the trench (five feet). Installation of vaults may require trenching to a depth of up to 10 feet. Given that the depth to groundwater in the study area is approximately 140 feet bgs at its most shallow locations, it is highly unlikely that groundwater seepage would occur from underground line or pole construction. Therefore, dewatering during construction is not anticipated (No Impact).

Installation of the underground subtransmission line associated with Alternative 3 would result in more compacted soil than the Proposed Project. Compacted soil can prohibit precipitation infiltration and affect groundwater reservoirs. However, soil compaction would occur under road surfaces that are currently impermeable. Similar to the Proposed Project, the poles that would be installed under Alternative 3 would not be expected to interfere with groundwater recharge such that there would be a net deficit in aquifer volume (Class III).

As with the Proposed Project, Alternative 3 would cross the Whitewater River. Furthermore, this alternative would also cross Chino Canyon Creek. Therefore, construction activities associated with Alternative 3 could alter an existing drainage pattern in a manner that could result in erosion or sedimentation. However, as with the Proposed Project, implementation of APM HYDRO-1 and HYDRO-2A as well as Mitigation Measures 4.8-4a and 4.8-4b would reduce potential impacts to less than significant (Class II).

The portion of Alternative 3 along Indian Canyon Drive between Chino Canyon Creek and the UPRR would be located within a 100-year flood hazard area. However, as with the Proposed Project, pole replacement would not exacerbate existing flood hazards and impacts would be less than significant (Class III).

Alternative 5

In general, the potential impacts to hydrology and water quality resulting from the implementation of Alternative 5 would be the same as for the Proposed Project. However, some differences in the extent of the potential impacts should be noted.

Alternative 5 would require installation of approximately three miles of underground subtransmission line along Ramon Road, Monterey Avenue, and Varner Road. Trenching for the underground portion of the alternative would require larger construction crews, more equipment usage, and a greater amount of soil disturbance than the proposed Mirage-Santa Rosa subtransmission line. As a result, impacts to water quality from construction of Alternative 5 would be higher than those anticipated from the Proposed Project; nevertheless, such impacts would be less than significant with implementation of APMs HYDRO-1 through HYDRO-4 (Class III).

While Alternative 5 would require a large amount of trenching, groundwater is not expected to be encountered during the trenching activities given the relatively shallow depth of the trench (five feet). Installation of vaults may require trenching to a depth of up to 10 feet; nevertheless, given that the depth to groundwater in the study area is approximately 140 feet bgs at its most shallow

locations, it is highly unlikely that groundwater seepage would occur from underground line or riser pole construction. Therefore, dewatering during construction is not anticipated (No Impact).

Installation of the underground subtransmission line associated with Alternative 5 would result in more compacted soil than the Proposed Project. Compacted soil can prohibit precipitation infiltration and affect groundwater reservoirs. However, soil compaction would occur under road surfaces that are currently impermeable. Similar to the Proposed Project, the riser poles that would be installed under Alternative 5 would not be expected to interfere with groundwater recharge such that there would be a net deficit in aquifer volume (Class III).

Alternative 5 would not be located within a defined river or channel. Therefore, the riser poles that would be required for this alternative would not alter an existing drainage pattern in a manner which would result in a substantial erosion or sedimentation (No Impact).

Alternative 5 would be located in the 100-year flood hazard area of Little San Bernardino Mountain drainage channels. This alternative would be located in the same flood hazard area as the proposed Mirage-Santa Rosa subtransmission line alignment. Impacts from this alternative, relative to impeding or redirecting flood waters would be similar, but less, than the Proposed Project. Impacts would be less than significant (Class III).

Alternative 6

In general, the potential impacts to hydrology and water quality resulting from the implementation of Alternative 6 would be the same as for the Proposed Project. However, some differences in the extent of the potential impacts should be noted.

Alternative 6 would require installation of approximately one mile of underground subtransmission line along Vista Chino between Landau Boulevard and Date Palm Drive. Trenching for the underground portion of the alternative would require larger construction crews, more equipment usage, and a greater amount of soil disturbance compared to the proposed Farrell-Garnet subtransmission line. As a result, impacts to water quality from construction of Alternative 6 would be slightly more than those anticipated under the Proposed Project; nevertheless, such impacts would be less than significant with implementation of APMs HYDRO-1 through HYDRO-4 (Class III).

While Alternative 6 would require trenching to install the underground portion of the subtransmission line, groundwater is not expected to be encountered during the trenching activities given the relatively shallow depth of the trench (five feet). Installation of vaults may require trenching to a depth of up to 10 feet. Given that the depth to groundwater in the study area is approximately 140 feet bgs at its most shallow locations, it is highly unlikely that groundwater seepage would occur from underground line or pole construction. Therefore, dewatering during construction is not anticipated (No Impact).

Installation of the underground subtransmission line associated with Alternative 6 would result in more compacted soil than the Proposed Project. Compacted soil can prohibit precipitation infiltration and affect groundwater reservoirs. However, soil compaction would occur under a road surface that is currently impermeable. Similar to the Proposed Project, the poles that would be installed under Alternative 6 would not be expected to interfere with groundwater recharge such that there would be a net deficit in aquifer volume (Class III).

Alternative 6 would cross the Whitewater River; however, as with the Proposed Project, implementation of APM HYDRO-1 and HYDRO-2A as well as Mitigation Measure 4.8-4a and 4.8-4b would reduce potential impacts to less than significant (Class II).

A small portion of Alternative 6 would be located in the 100-year flood hazard area near the Whitewater River. The Alternative 6 subtransmission line would also cross through the 100-year flood hazard area located along Date Palm Drive between Vista Chino and Varner Road. However, as with the Proposed Project, pole replacement would not exacerbate existing flood hazards and impacts would be less than significant (Class III).

Alternative 7

In general, the potential impacts to hydrology and water quality resulting from the implementation of Alternative 7 would be the same as for the Proposed Project. However, some differences in the extent of the potential impacts should be noted.

Alternative 7 would require a greater amount of pole replacement than the proposed Farrell-Garnet subtransmission line; therefore, impacts to water quality and groundwater supplies during construction of this alternative would be slightly higher than those anticipated from the Proposed Project. Nevertheless, such impacts would be less than significant with implementation of APMs HYDRO-1 through HYDRO-4 (Class III).

Alternative 7 would cross the Whitewater River; however, as with the Proposed Project, implementation of APM HYDRO-1 and HYDRO-2A as well as Mitigation Measure 4.8-4a and 4.8-4b would reduce potential impacts to less than significant (Class II).

A small portion of Alternative 7 would be located in the 100-year flood hazard area near the Whitewater River. Alternative 7 would also cross through the 100-year flood hazard area located along Date Palm Drive between Vista Chino and Varner Road. However, as with the Proposed Project, pole replacement would not exacerbate existing hazards and impacts would be less than significant (Class III).

References – Hydrology and Water Quality

California Department of Water Resources (DWR), *2003 California's Groundwater – Bulletin 118*, Updated 2003.

City of Cathedral City, 2002. *Comprehensive General Plan*, adopted July 31, 2002.

City of Indian Wells, 1996. *General Plan*, adopted February 1, 1996.

City of Palm Springs, 2007. *General Plan*, adopted October, 2007.

City of Rancho Mirage, 2005. *General Plan*, adopted November 2005.

Colorado River Basin Regional Water Quality Control Board (CRRWQCB), 2006. *Water Quality Control Plan, Colorado River Basin – Region 7*, amended June 2006.

CRRWQCB, 2007. *CWA Section 303(d) List of Water Quality Limited Segments*. USEPA Approval Date: June 28, 2007.

CRRWQCB, 2009. *Resolution No. R7-2009-0014, Proposed Revisions to the 303(d) List of Impaired Water Bodies and Preparation of the 2008 Integrated Report for the Colorado River Basin Region*, adopted January 22, 2009.

Riverside County, 2003. *Riverside County General Plan*, adopted October 7, 2003.

Southern California Edison (SCE), 2008. *Proponents Environmental Assessment: Devers-Mirage 115 kV Subtransmission System Split Project*, January 2008.

4.9 Land Use, Planning, and Policies

This section addresses potential impacts to land uses in the study area. The analysis considers potential impacts resulting from the construction, operation, and maintenance of the Proposed Project and alternatives. Land use issues include compatibility of the Proposed Project and alternatives with adjacent land uses, and potential conflicts with applicable plans and policies. This evaluation is based on review of local and regional land use plans and policies.

4.9.1 Setting

The Proposed Project and alternatives would be located in Riverside County. Various components would be located within the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, as well as unincorporated areas of Riverside County, including the Thousand Palms community.

Existing Land Uses

All of the Proposed Project components and alternatives would fall entirely within Riverside County and the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, and Indian Wells. The landscape in the project area is desert and mountainous, with large, open areas, though development is prevalent within the City of Palm Springs and surrounding cities. Primary land uses within the project area include residential, open space, commercial, utilities, and transportation.

The majority of the Proposed Project components and alternatives would occur within SCE designated fenced areas, existing SCE right-of-way (ROW), or a local jurisdiction road franchise ROW. For the existing land use descriptions below, Proposed Project and alternative components are divided into those located in the Farrell-Garnet study area (the western portion of the project area), and the Mirage-Santa Rosa study area (the eastern portion of the project area).

Farrell-Garnet Study Area

Proposed Farrell-Garnet 115 kV Subtransmission Line

The proposed Farrell-Garnet 115 kV subtransmission line would originate at the Farrell Substation in the City of Palm Springs and predominately travel north and northwest for approximately 5.8 miles. The proposed subtransmission line would be installed within existing subtransmission ROW and franchise locations, and would replace the existing structures in the ROW and franchise locations. One exception would be for a 0.8-mile portion of the line that would be constructed within new ROW. Land uses in the City of Palm Springs near this alignment of the Proposed Project are characterized primarily as open space, residences, and commercial areas; also, the Palm Springs International Airport is located one half mile southwest of the proposed Farrell-Garnet 115 kV alignment.

More specifically, the proposed subtransmission line alignment heads north from the Farrell Substation, following the east side of Gene Autry Trail for approximately 1.8 miles, before crossing to the west side of Gene Autry Trail south of the Union Pacific Rail (UPRR) ROW. Adjacent land uses are primarily low and medium density residential, including approximately 21 residences located on the periphery of the City, between approximately 150 feet to 1,500 feet to the west of the first half mile of the proposed subtransmission line alignment.

Along Gene Autry Trail, the proposed alignment crosses a wide expanse of open desert and the Whitewater River drainage. The alignment crosses approximately 750 feet of U.S. Bureau of Land Management (BLM) land before it crosses the UPRR. North of the railroad, the alignment would deviate from existing SCE ROW for approximately 0.8 mile, traveling northwest, north, and then east around private property, through open desert that is designated as a future planned regional business center use. The alignment continues northwest across the open desert landscape, and then follows the south side of Salvia Road in a northwest direction, before reaching Interstate 10 (I-10). At this point, the alignment parallels the south side of I-10, and continues in a westward direction to Garnet Substation. Land adjacent to I-10 is primarily conservation land and desert. The area in the immediate vicinity of Garnet Substation is currently occupied by commercial uses and large wind farms are located farther to the west of Garnet Substation. The Massey Rock and Sand Company owns a large mine due south of Garnet Substation, just south of the UPRR tracks and west of Indian Canyon Drive.

Proposed 115 kV Reconfigurations at Varner Road and Date Palm Drive

The Proposed Project would result in the reconfiguration of 115 kV subtransmission lines at the intersection of Varner Road and Date Palm Drive in the City of Cathedral City. With the exception of Varner Road, Date Palm Drive, and the existing subtransmission and transmission lines, the area is currently undeveloped. The reconfigurations would be located on either SCE ROW or in the Cathedral City road franchises.

Proposed Modifications to Substations

The Proposed Project would require the installation, operation, and maintenance of new electrical equipment at many of the existing substations in the Farrell-Garnet study area, including the Devers Substation in Riverside County, and Eisenhower, Farrell, Garnet, and Thornhill Substations in the City of Palm Springs, and Tamarisk Substation in Cathedral City. These existing substations are all located on land used for industrial purposes.

Alternative 2

The Alternative 2 subtransmission line would include approximately six miles of new overhead and underground single-circuit 115 kV subtransmission line within existing Caltrans and City of Palm Springs road franchise locations and SCE ROW. From Farrell Substation, the subtransmission line would be located underground and would run west along Vista Chino for approximately 1.3 miles. The north side of Vista Chino in this area consists of residential developments and the south side of Vista Chino includes residential, commercial, and industrial uses as well as the Palm Springs International Airport, which is located immediately south of

Vista Chino and west of Gene Autry Trail in the City of Palm Springs. The northern portion of the main runway at the airport is approximately 1,500 feet south of the Alternative 2 alignment. At mile 1.3, the Alternative 2 alignment continues underground and heads north along Sunrise Way for approximately 1.4 miles, passing residential areas. Just north of Four Seasons Boulevard, the alternative would transition overhead and continue north within existing SCE distribution line ROW, crossing desert open space and the UPRR. The alignment continues north through desert terrain until reaching the existing SCE subtransmission ROW, where it turns west-northwest and continues to Garnet Substation.

Alternative 3

The Alternative 3 subtransmission line would originate at the Farrell Substation in the City of Palm Springs, and would include approximately 6.5 miles of new overhead and underground single-circuit 115 kV subtransmission line within existing Caltrans and the City of Palm Springs road franchise locations and SCE ROW. From Farrell Substation, the alignment would be located underground and would run west along Vista Chino for approximately 1.3 miles. The north side of Vista Chino in this area consists of residential developments and the south side of Vista Chino includes residential, commercial, and industrial uses as well as the Palm Springs International Airport. The northern portion of the main runway is approximately 1,500 feet south of the Alternative 3 alignment. At mile 1.3, the alignment continues underground and turns north along Sunrise Way, and then east along San Rafael Road until reaching Indian Canyon Drive. Land uses in this area include existing residential neighborhoods along Sunrise Way, San Rafael Road, and Indian Canyon Drive. There are also intermittent commercial and industrial land uses in the area. At Indian Canyon Drive the line would transition overhead and continue north along the east side of the road to Garnet Substation. Along Indian Canyon Road, between the Chino Canyon Creek and the Garnet Substation, land uses include lake/water, desert, and industrial uses. As the Alternative 3 alignment approaches the Garnet Substation, there is a wind farm adjacent to the west side of the alignment.

Alternative 6

The Alternative 6 subtransmission line would originate at the Farrell Substation in the City of Palm Springs, and would include approximately 4.2 miles of new underground and overhead single-circuit 115 kV subtransmission line within Caltrans and Cathedral City road franchise locations and existing SCE ROW. From Farrell Substation, the alignment heads east along Vista Chino for approximately 2.7 miles to Date Palm Drive in Cathedral City. Adjacent to Vista Chino are areas of open space, as well as residential developments, commercial developments, and a resort and country club with golf courses. At Date Palm Drive the alignment continues north within the existing Devers-Eisenhower 115 kV line ROW. From Date Palm Drive to I-10 the alignment is adjacent to existing residential and commercial developments to the west and open space and desert to the east. This portion of the alignment parallels the UPRR in a northwesterly direction, and then crosses the UPRR and I-10. North of I-10 the alignment passes through open desert before reaching the existing Garnet-Santa Rosa 115 kV subtransmission line.

Alternative 7

The Alternative 7 subtransmission line would originate at the Farrell Substation in the City of Palm Springs, and would include approximately 9.1 miles of new overhead single-circuit 115 kV subtransmission line within existing Caltrans and Cathedral City road franchise locations and SCE ROW. From Farrell Substation, the alignment heads east along Vista Chino for approximately 1.7 miles to Landau Boulevard in Cathedral City. The land adjacent to Vista Chino is characterized by open space, as well as residential developments, commercial developments, and a resort and country club with golf courses. At Landau Boulevard, the alignment heads south for approximately 2.5 miles adjacent to resort and country club land uses, golf courses, and residential and commercial developments. At 33rd Avenue, the alignment heads east for approximately 0.9 mile to Date Palm Drive, where it would turn north and continue for 4.0 miles to the existing Garnet-Santa Rosa 115 kV line. Along 33rd Avenue and Date Palm Drive, the alignment passes residential and commercial developments, industrial areas, and desert open space. The northern portion of the alignment parallels the UPRR in a northwesterly direction, and then crosses the UPRR and I-10. North of I-10 the alignment passes through open desert (before reaching the existing Garnet-Santa Rosa 115 kV subtransmission line.

Mirage-Santa Rosa Study Area

Proposed Devers-Coachella Valley 220 kV Loop-In

The proposed Devers-Coachella Valley 220 kV Loop-In would be located within unincorporated Riverside County, in the community of Thousand Palms. The proposed 220 kV loop-in alignment originates at the Mirage Substation in unincorporated Riverside County and travels north for approximately 0.8 mile within existing SCE ROW to the existing Devers-Coachella Valley 220 kV transmission line. The alignment traverses primarily vacant desert, characterized by sparse vegetation. The natural character of nearby vacant lands has been modified by access roads and overland vehicular use. Roadways in the vicinity of the proposed loop-in alignment include Vista de Oro and Ramon Road. Approximately 20 residences are located west of Vista de Oro, which is an unpaved road located within the ROW.

Proposed Mirage-Santa Rosa 115 kV Subtransmission Line

The proposed Mirage-Santa Rosa 115 kV subtransmission line would originate at the Mirage Substation and proceed south for approximately 1.5 miles in existing SCE ROW, to the existing Santa Rosa-Tamarisk 115 kV subtransmission line. This alignment is within unincorporated Riverside County, in the community of Thousand Palms. Land uses in the area are characterized by open desert areas, residential golf course communities, commercial uses, and other residential development. Specifically, from Mirage Substation to Calle Francisco, the proposed alignment travels south along the east side of Vista de Oro, a dirt road, through open desert, and would continue through open desert until reaching Calle Desierto. Land uses along this alignment are medium density residential, medium high density residential and commercial retail. South of Calle Desierto the alignment runs adjacent to and east of the existing 115 kV subtransmission line, crossing the Tri-Palm Golf Course. From Calle Tosca to the south side of the UPRR, the alignment crosses both open desert and two additional areas of the Tri-Palm Golf Course before

crossing I-10 and the UPRR. South of the UPRR, the proposed subtransmission line would tap into the existing Santa Rosa-Tamarisk 115 kV subtransmission line.

Proposed 115 kV Reconfigurations

Existing subtransmission lines would be reconfigured at the intersection of Bob Hope Drive and Dinah Shore Drive in the City of Rancho Mirage to form the reconfigured Mirage-Santa Rosa-Tamarisk line and the reconfigured Mirage-Capwind-Devers-Tamarisk line. At the intersection of Gerald Ford Drive and Portola Avenue in the City of Desert Palm, existing subtransmission lines would be reconfigured to allow the proposed Mirage-Santa Rosa 115 kV subtransmission line to loop in to the existing Santa Rosa-Tamarisk 115 kV subtransmission line. The proposed reconfigurations would be located within existing SCE ROW adjacent to residential and commercial uses.

Proposed Modifications to Substations

The Proposed Project would require the installation, operation, and maintenance of new electrical equipment at several substations in the Mirage-Santa Rosa study area, including Mirage Substation in Riverside County in the Community of Thousand Palms, Santa Rosa Substation in the City of Rancho Mirage, Concho Substation in the City of Palm Desert, and Indian Wells Substation in the City of Indian Wells. These existing substations are all located on land used for industrial purposes.

Alternative 5

The Alternative 5 subtransmission line would originate at the Mirage Substation in Riverside County, in the Community of Thousand Palms, and would include approximately 3.1 miles of mostly underground single-circuit 115 kV subtransmission line within existing Riverside County road franchise locations and SCE ROW. From Mirage Substation, the underground line would run west along Ramon Road for approximately one mile, adjacent to residential areas and open space. At Monterey Avenue the line would head south for approximately 0.6 mile to Varner Road. The residential golf course community of the Tri-Palm Estates and other residential developments are located to the east of Monterey Avenue, and west of the avenue is primarily open space. At Varner Road the line would head southeast within the road, paralleling I-10 until reaching the existing Mirage-Concho 115 kV subtransmission line where the alternative would transition overhead. Land uses to the north of Varner Road include the residential golf course community mentioned above. Once overhead, the line would cross I-10 and would connect with the existing Santa Rosa-Tamarisk line south of I-10.

Regulatory Context

State

California Public Utilities Commission General Order No. 131-D

The California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the Proposed Project and alternatives, as it authorizes the construction, operation, and maintenance of investor-owned public utility facilities. While General Order

No. 131-D, Section XIV.B requires that in locating a project "the public utility shall consult with local agencies regarding land use matter," such projects are exempt from local land use and zoning regulations and discretionary permitting (i.e. would not require approval from a local decision-making body such as a planning commission, county or city council). The public utility is required to obtain any required non-discretionary local permit.

California Public Utilities Code

California Public Utilities Code Section 21658 prohibits structural hazards associated with utility poles and lines near airports. Should a transmission line be located in the vicinity of an airport or exceed 200 feet in height, a Notice of Proposed Construction or Alteration (Form 7460-1) will be required by the Federal Aviation Administration in accordance with Federal Aviation Regulation, Part 77 "Objects Affecting Navigable Airspace."

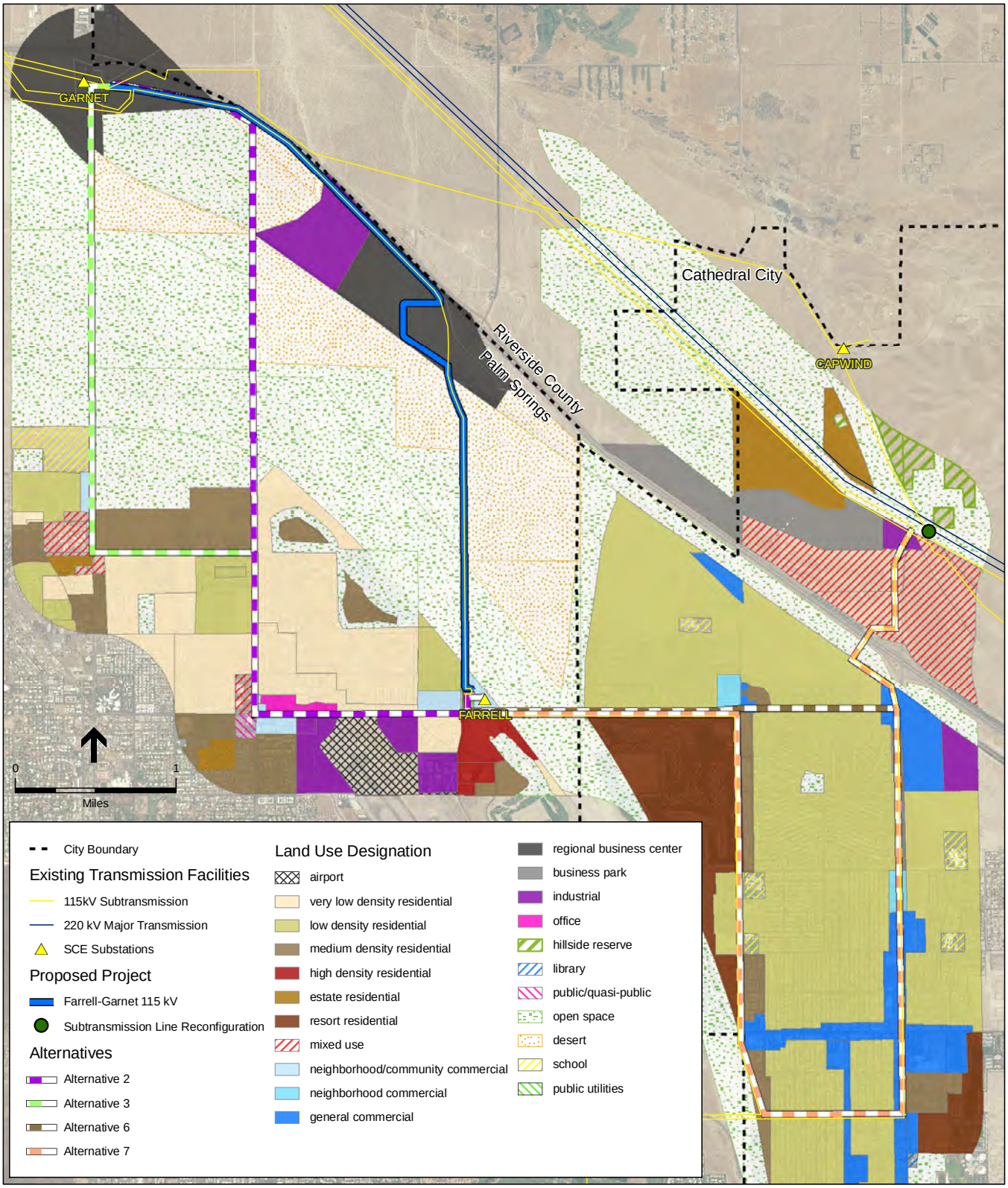
Local

This section presents the local (i.e., County and city) planning documents (e.g., general plans) and ordinances that are applicable to the Proposed and alternatives. Figure 4.9-1, *Farrell-Garnet Study Area, General Plan Land Use Designations*, provides an illustration of the planned land uses in the vicinity of the Farrell-Garnet study area and Figure 4.9-2, *Mirage-Santa Rosa Study Area, General Plan Land Use Designations*, provides an illustration of the planned land uses in the vicinity of the Mirage-Santa Rosa study area.

Riverside County General Plan

The Riverside County General Plan, updated and adopted in October 2003, serves as the blueprint for planning decisions in Riverside County. It sets the foundation for growth and land-use related decisions within Riverside County over the next 20 years. The Riverside General Plan is comprised of the eight elements: Land Use, Circulation, Multipurpose Open Space, Safety, Noise, Housing, Air Quality, and Administration. The General Plan is augmented by 19 additional detailed Area Plans covering the County's territory (Riverside County, 2003).

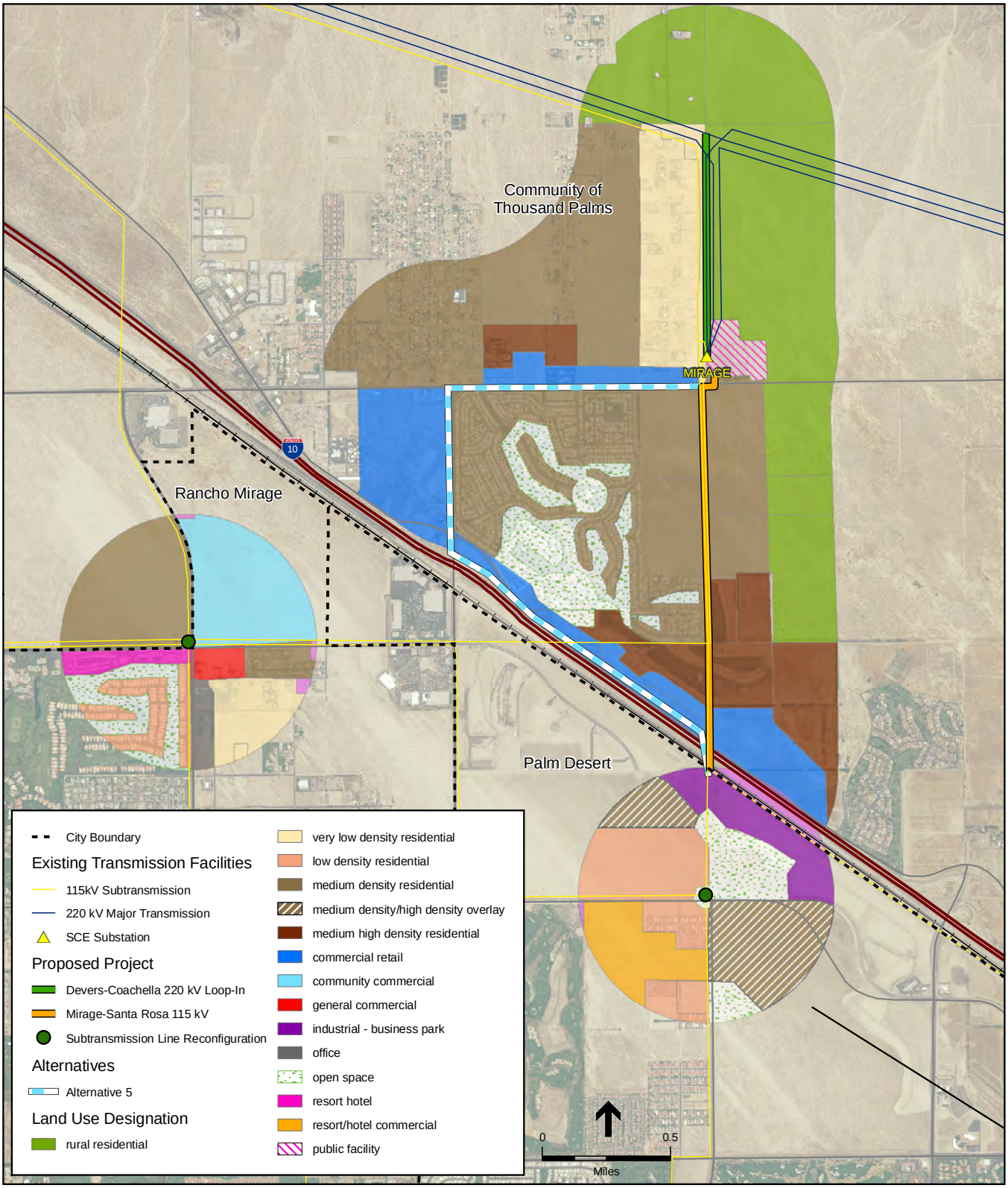
The Land Use Element of the Riverside County General Plan functions as a guide to planners, the general public, and decision makers as to the ultimate pattern of development in Riverside County (Riverside County, 2003). The Land Use Element provides specific land use designations that provide guidance for land use planning and policies specific to a site. The General Plan Land Use Map consists of five broad Foundation Component land uses: Agriculture, Rural, Rural Community, Open Space, and Community Development. The proposed Devers-Coachella Valley 220 kV Loop-In and Alternative 5 alignments traverse land designated as Very Low Density Residential, Medium Density Residential, and Commercial Retail (see Figure 4.9-2). This land use is subdivided into more detailed land use designations at the area plan level. As such, designated land uses in Riverside County are discussed below, under the Western Coachella Valley Area Plan.



SOURCE: SCE, 2008; City of Palm Springs, 2007;
City of Cathedral City, 2009a; Riverside County, 2009

Devers-Mirage 115 kV Subtransmission System Split Project. 207059

Figure 4.9-1
General Plan Land Use
Farrell-Garnet Study Area



SOURCE: SCE, 2008; Riverside County, 2009;
City of Rancho Mirage, 2009b; City of Palm Desert, 2006

Devers-Mirage 115 kV Subtransmission System Split Project. 207059

Figure 4.9-2
General Plan Land Use
Mirage-Santa Rosa Study Area

The Riverside County General Plan contains the following policies relevant to the proposed Devers-Coachella Valley 220 kV Loop-In and Alternative 5 (Riverside County, 2003):

> *Land Use Element*
>
> *Policy LU 6.2:* Direct public, educational, religious, and utility uses established to serve the surrounding community toward those areas designated for Community Development and Rural Community uses on the applicable Area Plan land use maps. These uses may be found consistent with any of the Community Development, Rural Community, or Rural foundation designations, including the Rural Village Overlay, as well as the Open Space – Rural and Agriculture designations, under the following conditions:
>
> a. The facility is compatible in scale and design with surrounding land uses, and does not generate excessive noise, traffic, light, fumes, or odors that might have a negative impact on adjacent neighborhoods.
>
> b. The location of the proposed use will not jeopardize public health, safety, and welfare, or the facility is necessary to ensure the continual public safety and welfare.
>
> *Policy LU 25.5:* Require that public facilities be designed to consider their surroundings and visually enhance, not degrade, the character of the surrounding area.

Western Coachella Valley Area Plan

The majority of unincorporated Riverside County is divided into 19 area plans. The purpose of these area plans is to provide more detailed land use and policy direction regarding local issues including circulation, open space, land use, and other topical areas. The Proposed Project and alternative alignments and sites fall within the Western Coachella Valley Area Plan. The area plan land use maps contain a more detailed series of land use categories that are grouped according to the five General Plan Foundation Components.

The Proposed Project would traverse and/or be adjacent to the following Western Coachella Valley Area Plan land use designations: Commercial Retail (CR), Medium Density Residential (MDR), Medium High Density Residential (MHDR), Public Facilities (PF), Rural Residential (RR), and Very Low Density Residential (VLDR). Alternative 5 would traverse and/or be located adjacent to CR, MDR, and PF land use designations (see Figure 4.9-2) (Riverside County, 2009). Descriptions of these land use designations are provided below (Riverside County, 2003):

> *CR.* This designation allows for the development of commercial retail uses at a neighborhood, community, and regional level, as well as for professional office and tourist-oriented commercial uses. *CR* uses are permitted based on their compatibility with surrounding land uses, and based on the amount of *CR* acreage already developed within County unincorporated territory.
>
> *MDR.* The MDR land use designation provides for the development of conventional single family detached houses and suburban subdivisions. Limited agriculture and animal-keeping uses are also allowed within this category. The density range is 2.0 to 5.0 dwelling units per acre, which allows for a lot size that typically ranges from 5,500 to 20,000 square feet.

MHDR. This land use designation provides for the development of smaller lot, single family residences. Typical allowable uses in this category include detached, small-lot single family homes, patio homes, and townhouses. The potential for clustered development is provided for in this category. The density range is 5.0 to 8.0 dwelling units per acre, with lot sizes typically ranging from 4,000 to 6,500 square feet.

PF. This land use designation provides for the development of various public, quasi-public, and private uses with similar characteristics, such as governmental facilities, utility facilities including public and private electric generating stations and corridors, landfills, airports, educational facilities, and maintenance yards.

RR. The RR land use designation allows one single family residence per five acres, as well as limited animal-keeping and agricultural activities. For multi-lot developments, the minimum lot size per residential unit is 2.5 acres, though the overall density of the development must not exceed 0.2 dwelling units per acre. Limited recreational uses, compatible resource development (not including the commercial extraction of mineral resources) and associated uses, and governmental uses are also allowed within this designation.

VLDR. The VLDR land use designation provides for the development of detached single family residential dwelling units and ancillary structures on large parcels. Limited agriculture is permitted in this designation. The density range is from 1 dwelling unit per acre to 1 dwelling unit per 2 acres, which allows a minimum lot size of 1 acre.

The Western Coachella Valley Area Plan contains the following policy relevant to the proposed Devers-Coachella Valley 220 kV Loop-In and Alternative 5 (Riverside County, 2003):

Policy 12.4: Require the screening and/or landscaping of outdoor storage areas, such as contractor storage yards and similar uses.

Riverside County Airport Land Use Compatibility Plan

Although the City of Palm Springs contains the Palm Springs International Airport within its boundaries, the County of Riverside has policies that pertain to development within the vicinity of an airport. Such policies and procedures are found within the Riverside County Airport Land Use Compatibility Plan. The purpose of the plan is to promote compatibility between airports and the land uses that surround them, as well as to set compatibility criteria applicable to local agencies in their preparation or amendment of land use plans and ordinances and applicable to landowners (including special district and other local government entities as well as private parties) in their design of new development (RCALUC, 2004).

The proposed Farrell-Garnet subtransmission line and Alternative 6 and 7 alignments traverse land in Compatibility Zones D and E of the Airport Land Use Compatibility Plan. Alternatives 2 and 3 would traverse land in Compatibility Zones A, B1, C, D, and E (RCALUC, 2004).

The following air space protection policies of the Riverside County Airport Land Use Compatibility Plan would be relevant to the proposed Farrell-Garnet subtransmission line and Alternatives 6 and 7 (RCALUC, 2004):

Countywide Policies

Policy 1.5.3. Major Land Use Actions: The scope or character of certain major land use actions, as listed below, is such that their compatibility with airport activity is a potential concern. Even though these actions may be basically consistent with the local general plan or specific plan, sufficient detail may not be known to enable a full airport compatibility evaluation at the time that the general plan or specific plan is reviewed. To enable better assessment of compliance with the compatibility criteria set forth herein, Airport Land Use Commission (ALUC) review of these actions may be warranted. The circumstances under which ALUC review of these actions is to be conducted are indicated in Policy 1.5.2 above.

(a) Actions affecting land uses within any compatibility zone.

(9) Proposals for new development (including buildings, antennas, and other structures) having a height of more than:

- 35 feet within *Compatibility Zone B1, B2*, or a *Height Review Overlay Zone*;
- 70 feet within *Compatibility Zone C*; or
- 150 feet within *Compatibility Zone D* or *E*.

(11) Any project having the potential to create electrical or visual hazards to aircraft in flight, including:

- Electrical interference with radio communications or navigational signals;
- Lighting which could be mistaken for airport lighting;
- Glare in the eyes of pilots of aircraft using the airport; and
- Impaired visibility near the airport.

Policy 4.3.1. Policy Objective: Tall structures, trees, and other objects, particularly when located near airports or on high terrain, may constitute hazards to aircraft in flight. Federal regulations establish the criteria for evaluating potential obstructions. These regulations also require that the Federal Aviation Administration be notified of proposals for creation of certain such objects. The FAA conducts "aeronautical studies" of these objects and determines whether they would be hazards, but it does not have the authority to prevent their creation. The purpose of ALUC airspace protection policies, together with regulations established by local land use jurisdictions and the state government, is to ensure that hazardous obstructions to the navigable airspace do not occur.

Policy 4.3.3. ALUC Review of Height of Proposed Objects: Based upon FAA criteria, proposed objects that would exceed the heights indicated below for the respective compatibility zones potentially represent airspace obstructions issues. Development proposals that include any such objects shall be reviewed by the ALUC. Objects of lesser height normally would not have a potential for being airspace obstructions and therefore do not require ALUC review with respect to airspace protection criteria (noise, safety, and overflight concerns may still be present). Caution should be exercised, however, with regard to any object more than 50 feet high proposed to be located on a site that is substantially higher than surrounding terrain.

(a) Within *Compatibility Zone A*, the height of any proposed development, including vegetation, requires review.

(b) Within *Compatibility Zone B1,* ALUC review is required for any proposed object taller than 35 feet unless the airport controls an easement on the land on which the object is to be located and grants a waiver to height restrictions.

(c) Within *Compatibility Zone B2,* ALUC review is required for any proposed object taller than 35 feet.

(d) Within *Compatibility Zones C* and *D,* ALUC review is required for any proposed object taller than 70 feet.

(e) Within *Compatibility Zone E,* ALUC review is required for any proposed object taller than 100 feet.

(f) Within the Height Review Overlay Zone, ALUC review is required for any proposed object taller than 35 feet above the ground. The approximate extent of the Height Review Overlay Zone is indicated on the respective Compatibility Map included for each airport in Chapter 3.

Policy 4.3.4. Height Restriction Criteria: The height of objects within the influence area of each airport shall be reviewed, and restricted if necessary, according to the following criteria. The locations of these zones are depicted on the respective Compatibility Map for each airport.

(a) Within *Compatibility Zone A,* the height of all objects shall be limited in accordance with applicable Federal Aviation Administration criteria including FAR Part 77, TERPS, and/or airport design standards.

(b) Within *Compatibility Zones B1*, *B2,* or *Height Review Overlay Zone*:

(1) Objects up to 35 feet tall are acceptable and do not require ALUC review for the purposes of height factors.

(2) ALUC review is required for any proposed object taller than 35 feet.

(3) Federal Aviation Administration review may be necessary for proposed objects adjacent to the runway edges and the FAA may require marking and lighting of certain objects (the affected areas are generally on airport property).

(c) Within *Compatibility Zones C* and *D,* generally, there is no concern with regard to any object up to 70 feet tall unless it is located on high ground or it is a solitary object (e.g., an antenna) more than 35 feet taller than other nearby objects.

(d) Within *Compatibility Zone E*, generally, there is no concern with regard to any object up to 100 feet tall unless it is located on high ground or it is a solitary object (e.g., an antenna) more than 35 feet above the ground.

Riverside County Zoning Ordinance

Portions of the proposed Devers-Coachella Valley 220 kV Loop-In and the proposed Mirage-Santa Rosa subtransmission line would traverse and/or be located adjacent to Riverside County parcels zoned as R-1 and R-3-6000. Alternative 5 would traverse and/or be located adjacent to parcels zoned R-3-6000, R-4, R-5, C-P-S, and C-1/C-P. Descriptions of these land use designations are provided below (Riverside County, 2008):

R-1 Zone (One-Family Dwelling): This zoning district is intended primarily to provide for one-family dwellings; field crops, flower and vegetable gardening, tree crops, and greenhouses used only for purposes of propagation and culture; and the noncommercial keeping of certain agricultural animals.

R-3-6000 Zone (General Residential): This zoning district is intended to provide for a variety of uses including but not limited to: one-family, two-family, and multiple family dwellings; field crops, flower and vegetable gardening, tree crops, and greenhouses used only for purposes of propagation and culture; the noncommercial keeping of certain agricultural animals; public parks and playgrounds; planned residential developments; hotels and motels; and offices.

R-4 Zone (Planned Residential): This zoning district is for parcels of at least nine acres and is intended to provide for a variety of uses including but not limited to: one-family and multiple family dwellings; non-profit community centers, churches, parks, and community recreation facilities; and community service areas and medical facilities.

R-5 Zone (Open Area Combining Zone-Residential Developments): This zoning district is intended to provide for: golf courses and appurtenant facilities; non-commercial community association recreation and assembly buildings and facilities; lakes; picnic grounds; parking lots; and water-wells.

C-P-S Zone (Scenic Highway Commercial): This zoning district permits a wide variety of commercial uses, provided the uses are in enclosed buildings with not more than 200 square feet of outside storage or display of materials appurtenant to such use.

C-1/C-P (General Commercial): This zoning district permits a wide variety of commercial uses, provided the uses are in enclosed buildings with not more than 200 square feet of outside storage or display of materials appurtenant to such use.

City of Palm Springs General Plan

Portions of the proposed Farrell-Garnet subtransmission line and Alternatives 2, 3, 6, and 7 would be located within the City of Palm Springs. The City of Palm Springs General Plan provides background information regarding land use and planning policy guidance, as well as designated land uses within the City (City of Palm Springs, 2007).

The proposed Farrell-Garnet subtransmission line would traverse and/or be located adjacent to parcels designated as Public/Utilities, Neighborhood/Community Commercial, Low Density Residential, Open Space-Water, Desert, Open Space-Conservation, Regional Business Center, Industrial and Open Space-Mountain. The Alternative 2 alignment traverses and/or is located adjacent to parcels designated as Public/Utilities, Neighborhood/Community Commercial, High Density Residential, Open Space-Parks/Recreation, Very Low Density Residential, Industrial, Airport, Office, School, Public/Quasi-Public, Mixed Use/Multi-Use, Low Density Residential, Medium Density Residential, Open Space-Water, Open Space-Conservation, Open Space-Mountain, and Desert. The Alternative 3 alignment traverses and/or is located adjacent to parcels designated as Public/Utilities, Neighborhood/Community Commercial, High Density Residential, Open Space-Parks/Recreation, Very low Density Residential, Industrial, Airport, Office, School, Public/Quasi-Public, Mixed Use/Multi-Use, Low Density Residential, Medium Density Residential, Open Space-Water, Open Space-Mountain, Desert and Open Space-Conservation.

The Alternative 6 and 7 alignments traverse and/or are located adjacent to parcels designated as Public/Utilities, Neighborhood/Community Commercial, High Density Residential, Open Space-Parks/Recreation and Open Space-Water (See Figure 4.9-1). Descriptions of the aforementioned land use designations are provided below (City of Palm Springs, 2007).

Airport. Uses that are reasonably necessary for the proper operation of the Palm Springs International Airport. The Palm Springs Airport Master Plan and Riverside County Airport Land Use Compatibility Study serve as the primary regulatory documents for airport facilities and related uses.

Desert (1 dwelling unit per 10 acres). This designation is intended to identify areas to be retained to protect natural, scenic, and wildlife resources unique to Palm Springs and to identify areas where minimal development is desired to protect people and property from environmental hazards such as blowsand associated with the undeveloped desert floor areas. Cluster development is encouraged to respond to the environmental sensitivity of the area. Other permitted uses in this land use designation include recreational facilities and public facilities that comply with the intent of the goals and policies identified in the General Plan.

High Density Residential. Typical development in this category would include duplexes, townhomes, and apartments. Hotels and motels are also permitted up to 43 rooms per net acre (up to 86 rooms per net acre permitted on Indian Land) as long as they are consistent with the design and character of the surrounding neighborhoods and do not create significant design, parking, or traffic impacts to the surrounding residential neighborhood.

Industrial. Industrial uses typically include research and development parks, light manufacturing, laboratories, and industrial services. Retail commercial uses and offices shall be allowed as ancillary uses to the industrial use to encourage projects that are self-sustaining. Industrial development is not a primary use within the City, and any industrial use proposed should not detract from the City's desire to be a premier resort community. Industrial uses adjacent to the airport are also included in this designation.

*Low Density Resid*ential (4.1–6.0 dwelling units per acre). Similar to the Very Low Density Residential designation, the Low Density Residential designation also represents "typical" single-family detached residential development. This designation accommodates typical lot sizes ranging from 10,000 to 8,000 square feet.

*Medium Density Resident*ial (6.1–15.0 dwelling units per acre). This residential land use category accommodates a range of residential housing types, including single-family attached, single-family detached, patio homes, duplexes, townhomes, multiple-family, and mobile home projects.

Mixed Use/Multi-Use (Maximum of 15 dwelling units per acre for residential uses and a maximum 0.50 floor area ratio (FAR) for nonresidential uses). Specific uses intended in these areas include community-serving retail commercial, professional offices, service businesses, restaurants, daycare centers, public and quasi-public uses.

Neighborhood/Community Commercial (0.35 FAR). This land use designation provides an opportunity for convenience commercial uses that serve adjacent residential neighborhoods. The commercial opportunities created under this designation are intended to be an integrated element of the neighborhood, providing to nearby residents services

such as dry cleaners, grocery stores, bakeries, bank and post office branches, bookstores, drugstores, and smaller-scale restaurants.

Office (0.35 FAR). This land use designation allows for the development of office uses such as executive, administrative and clerical offices, medical offices, and small office centers. Retail uses in this district should be limited to uses directly related to office operations such as restaurants, office supply stores, and pharmacies associated with a medical building. Hotels may be permitted when appropriately integrated into a business or corporate park.

Open Space-Conservation (1 dwelling unit per 20 acres). Conservation areas are mainly designated for gently sloping areas of scenic beauty (such as hillsides) and natural landforms (such as alluvial fans) that should be preserved to maintain the City's unique character. This designation is typically applied in areas that have slope ranges of 10 to 30 percent. Residential uses are permitted as an incidental use in this area. The Conservation designation is predominantly applied to the vast, non-mountainous open space areas south of I-10 and north of the Whitewater Wash.

Open Space-Parks/Recreation. This designation is used for regional, local, and neighborhood parks, community centers, public and private golf courses, and any recreational facility operated by a public or quasi- public agency. These areas are intended for "active" recreational uses.

Open Space-Water. Areas designated as Open Space–Water are reserved for flood control or drainage facilities only. Properties under this designation fall within the 100-year flood zone as established by the adoption of Federal Emergency Management Agency (FEMA) flood maps and are subject to sporadic flooding and other hazards in the event of a 100-year flood. No habitable structures are permitted within these areas.

Open Space-Mountain. Mountain areas are generally defined as the sloping areas located above the toe of the slope**.** Mountain areas generally consist of steep slopes; any areas in parcels in excess of a 30 percent slope may not be used for development or for purposes of calculating density except in limited circumstances. This designation is very similar to the Open Space–Conservation designation with one exception—residential densities within this area will be applied at one dwelling unit per each 40 acres.

Public/Quasi-Public (0.35 FAR). This designation includes government offices and corporation yards, hospitals, City-owned museums, cemeteries, and libraries. The public/quasi-public uses identified on the Land Use Map predominantly reflect existing uses that are located throughout the City to effectively serve the community.

Public/Utilities. Multiple utilities and service providers operate within the City of Palm Springs. This land use designation applies to facilities such as water storage tanks and electrical substations.

Regional Business Center (Industrial – 0.50 FAR, Office – 0.35 FAR, Commercial – 0.50 FAR). Generally located at the Indian Canyon Drive and Gene Autry Trail interchanges north of the UPRR and adjacent to I-10, the Regional Business Center area is intended to accommodate a wide variety of business activities in a multi-use environment. Commercial, office, and industrial uses that can be supported by their proximity to the freeway are encouraged in this area. Commercial uses can include retail establishments, hotels, automobile dealerships, and other uses that serve a regional population. Business parks and industrial uses are also envisioned under this land use designation.

School. The School designation applies to existing public schools and larger private schools at the elementary, junior high, and high school levels. Facilities that conduct courses at the collegiate level are also included in this designation.

Very low Density Residential (2.1–4.0 dwelling units per acre). The Very Low Density Residential is the most prevalent land use designation within the City, representing typical single-family detached residential development. Lot sizes in this land use designation generally range from 16,500 to 8,500 square feet.

The following policies and goal identified in the City of Palm Springs General Plan would be applicable to the Proposed Project and Alternatives 2, 3, 6, and 7 (City of Palm Springs, 2007):

Land Use Element

Policy LU1.11. Sensitively integrate into the community required land uses such as transportation corridors, flood control systems, utility corridors, and recreational corridors.

Policy LU11.4: Ensure that proposed land uses and developments around the airport comply with the policies set forth in the Riverside County Airport Land Use Compatibility Plan.

Community Design Element

Policy CD26.1. Protect and enhance view corridors by undergrounding and screening utility lines and facilities.

Circulation Element

Goal CR10: Provide adequate and safe utility systems and facilities to support the City's existing and proposed land uses.

City of Palm Springs Zoning Ordinance

The proposed Farrell-Garnet subtransmission line would traverse and/or be located adjacent to City of Palm Springs parcels zoned C-1, M-1-P, O-5, O-20, R-I-D, W, and IL. The Alternative 2 alignment traverses and/or is located adjacent to parcels zoned C-1, C-D-N, C-S-C, GR5, M-1-P, N, O, O-5, O-20, P, R-1-C, R-2, W, IL, and PD. The Alternative 3 alignment traverses and/or is located adjacent to parcels zoned C-1, C-D-N, C-M, C-S-C, GR5, M-1-P, N, O, O-5, O-20, P, R-1-C, R-2, W, IL, and PD. The Alternative 6 and 7 alignments traverse parcels zoned M-1-P, W, M-1, and IL. Descriptions of these zoning designations are provided below (City of Palm Springs, 2009):

C-1: Retail business zone

C-D-N: Designed neighborhood shopping center zone

C-M: Commercial manufacturing zone

C-S-C: Community shopping center zone

GR5: Guest ranch zone

M-1: Service/manufacturing zone

M-1-P: Planned research and development park zone

O: Open land zone

O-5: Open land zone

O-20: Open land zone

P: Professional zone

R-1-C: Single-family residential zone 10,000 square feet

R-2: Limited multiple-family residential zone

R-I-D: Single-family residential zone 7,500 square feet

W: Watercourse zone

IL: Indian Land overlay zone

N: Noise impact combining zone

PD: Planned development district overlay zone

City of Cathedral City General Plan

The reconfiguration at Varner Road and Date Palm Drive would take place within the City of Cathedral City. In addition, the majority of the Alternatives 6 and 7 alignments are located within the City. The reconfiguration would occur at a location designated by the City of Cathedral City General Plan as Open Space-Public (OS-P). The Alternative 6 alignment traverses and/or is located adjacent to parcels designated Low Density Residential (RL), Resort Residential (RR), Medium Density Residential (RM), Neighborhood Commercial (CN), General Commercial (CG), Mixed Use-Urban (MU-U), Industrial (I), Open Space-Other (OS-O), OS-P, and Open Space-Water (OS-W). The Alternative 7 alignment traverses or is located adjacent to parcels designated RL, RR, RM, CN, CG, MU-U, I, OS-O, OS-P, OS-W, Schools (P/S), and Business Park (BP) (see Figure 4.9-1). Descriptions of the aforementioned land use designations are provided below (City of Cathedral City, 2009a).

RL: This designation provides for single-family residential development on individual lots typically ranging from about 7,500 to 20,000 square feet. These lands serve to buffer more dense residential development from estate residential uses and may be appropriate in areas with some site constraints.

RR: This low density designation is intended to accommodate single-family and attached residential development in a master planned resort setting. Onsite amenities typically include golf courses, tennis and swimming facilities, as well as tourist/resort-serving commercial uses. This designation also allows hotels/motels, and ancillary visitor and tourist-serving commercial uses.

RM: This designation provides for moderately low to medium density subdivisions and Planned Unit Developments. It serves to transition between lower and more moderate residential densities. Types typically range from single-family to multi-family, with much of existing development being duplex units on 8,000 square foot lots.

BP: This designation is intended for light industrial and related uses which are compatible with one another, as well as with neighboring residential and commercial uses. Other potentially appropriate uses include professional and government offices.

CN: This designation is assigned to existing neighborhood centers and vacant lands appropriate for this use. It provides for neighborhood-scale shopping integrated with and conveniently located as part of residential areas. A mix of land uses may also be considered appropriate within this category.

CG: These lands include a variety of commercial centers. Office development is also appropriate in some areas with this designation, as well as hotels and motels.

MU-U[1]

I: This designation provides for the development of any and all industrial uses operating entirely in enclosed buildings, and those requiring limited and screenable outdoor storage. This designation may also allow conditional and/or discretional development of more intense industrial uses.

OS-O: This designation may be used to define a variety of open spaces and special resource areas, or those that may pose threats or hazards to development.

OS-P: This designation is for public parks and open space lands determined to be special, important, or valuable natural resources which warrant protection. This designation is assigned to park lands and other recreational amenities.

OS-W: This designation is used to delineate floodways, including natural and man-made floodway and drainage channels.

P/S: This designation provides for public and quasi-public uses pertaining to educational facilities such as daycare, elementary, intermediate, high, special, and technical schools.

The City of Cathedral City General Plan contains the following policies relevant to the Proposed Project and alternatives (City of Cathedral City, 2009a):

Land Use Element

Policy 3: The City shall pro-actively cooperate and coordinate with all providers of utility and public safety services in the community.

Community Image and Urban Design Element

Policy 15: Overhead utility lines shall be undergrounded to the greatest extent practical through the establishment of an undergrounding program and guidelines.

Water, Sewer and Utilities Element

Policy 6: Major utility facilities, such as well sites and substations, shall be designed and sited to minimize environmental and visual impacts.

Policy 7: Utility lines shall be underground, to the greatest extent practical. Those on major streets and scenic roadways shall have primary consideration for undergrounding.

[1] The *MU-U* designation is not specifically described in the City of Cathedral City General Plan (2009a)

City of Cathedral City Zoning Ordinance

The reconfiguration at Varner Road and Date Palm Drive would occur in a location zoned by the City of Cathedral City as Open Space (OS). The Alternative 6 subtransmission line would traverse or be located adjacent to parcels zoned Single Family Residential (R1), Multiple Family Residential (R2), Resort Residential (RR), Planned Community Commercial (PCC), Mixed Use-Urban (MU-U), Light Industrial (I-1), and OS. The Alternative 7 subtransmission line would traverse or be located adjacent to parcels zoned R1, R2, RR, PCC, MU-U, I-1, OS, and Neighborhood Business Park (NBP) (City of Cathedral City, 2009b). Descriptions of these zoning designations are provided below (City of Cathedral City, 2009b):

> *I-1*: This zoning designation provides for a wide diversity of industrial uses in areas where such uses are not likely to have adverse effects upon each other or upon neighboring residential or commercial areas. Uses permitted are those generally regarded as "light industry," conducted primarily indoors, but which may require limited outdoor storage or assembly areas.
>
> *MU-U* [2]
>
> *R2*: This zoning designation provides for appropriately located areas for families living in a variety of types of dwellings at a low to medium range of population density, and provides space for community facilities needed to complement urban residential areas.
>
> *NBP*: This zoning designation provides for a land use area which creates a transition between residential, office, and commercial uses.
>
> *OS*: The open space zoning designation is to be placed on property under the following circumstances:
>
> A. When by the nature of its use, such as regional transmission or electricity, or its natural limitation, such as being subject to flooding or faulting, make the property inappropriate for habitation or intensive development.
>
> B. When the property is under public control and is intended for development of public uses. Under this circumstance buildings may be permitted.
>
> *PCC*: This zoning designation provides for retail and service commercial uses which are of a relatively high intensity and are necessary to provide a wide range of shopping facilities and goods, professional and administrative offices, and entertainment.
>
> *R1*: This zoning designation provides for a living area within the City where development is limited to low density concentrations of one-family dwellings and to promote and encourage a suitable environment for family life, to provide space for community facilities needed to complement urban residential areas, and for institutions which require a residential environment and to minimize traffic congestion.
>
> *RR*: This zoning designation provides for appropriately located areas for a variety of housing types and visitor-serving and recreation-oriented uses in a resort development setting with ancillary commercial uses.

[2] The *MU-U* designation is not specifically described in the City of Cathedral Zoning Ordinance (2009b)

City of Rancho Mirage General Plan

The reconfiguration at Portola Avenue and Gerald Ford Drive would occur in the City of Rancho Mirage would be located adjacent to areas with the following land use designations: Residential-Medium Density (R-M), Community Commercial (C-C), General Commercial (C-G), and Resort Hotel (Rs-H) (see Figure 4.9-2) (City of Rancho Mirage, 2009b). Descriptions of these land use designations are outlined below (City of Rancho Mirage, 2005). Some of these areas also fall within an overlay zone that designates the land as held in the Tribal Trust of the Agua Caliente Band of Cahuilla Indians.

> *R-M*: Appropriate residential development under this designation includes single-family and Planned Residential Developments. The intent of this designation is to encourage development of a wide variety of dwelling unit types in a planned environment.
>
> *C-C*: This designation provides for regional or community-scale shopping centers and malls. The community commercial center is intended to serve the entire community as well as the surrounding market area.
>
> *C-R*: This land use includes a wide variety of commercial centers, specialty retail shops, clothing and jewelry stores, and a variety of personal service businesses. Small department stores may also be appropriate under this designation. Development may range from freestanding retail buildings and restaurants to planned commercial centers. Hotels and motels may also be appropriate on these lands.
>
> *Rs-H*: This designation allows for the development of hotels and destination resorts with limited ancillary commercial uses, such as spas, recreational facilities, restaurants, lounges, and small retail shops that directly support the primary use.

The City of Rancho Mirage General Plan contains the following goal and policies relevant to the Proposed Project (City of Rancho Mirage, 2005):

> *Water, Sewer and Utilities Element*
>
> *Goal 5:* All utilities line placed underground.
>
> *Policy 9:* Utility lines on major streets shall have primary consideration for under-grounding.
>
> *Policy 10:* Major utility facilities shall be sited to assure minimal impacts to the environment and the community, and minimize potential environmental hazards.
>
> *Policy 11:* The City shall encourage the coordinated and shared use of underground transmission corridors as means of minimizing repeated exactions into the streets.

City of Rancho Mirage Zoning Ordinance

The reconfigurations at Bob Hope Drive and Dina Shore Drive would occur in the City of Rancho Mirage would be located adjacent to areas with following zoning designations: Residential—Medium Density (R-M), Community Commercial (C-C), General Commercial (C-G), and Resort Hotel (Rs-H) (City of Rancho Mirage, 2009b). Descriptions of these zoning designations are below (City of Rancho Mirage, 2009a). Some of these areas also fall within an overlay zone

described below that designates the land as held in the Tribal Trust of the Agua Caliente Band of Cahuilla Indians.

R-M: The R-M zoning district identifies areas appropriate for a variety of housing types. The allowable maximum density is four units per gross acre. The R-M zoning district is intended to encourage the development of a variety of residential development, including garden apartments and affordable housing.

C-C: The C-C zoning district is applied to areas appropriate for larger, community-scale shopping centers and malls, which may be anchored by several department stores or other large-scale retail outlets, restaurants, hotels, and entertainment uses. The standard size of development ranges from 100,000 to 400,000 square feet in gross floor area, and requires approval of a specific plan.

C-G: The C-G zoning district is applied to areas appropriate for a variety of smaller commercial centers, specialty retail shops, including, but not limited to, a broad range of specialty retail shops, clothing and apparel, jewelry stores, and personal service businesses on sites generally two to eight acres in size.

Rs-H: The Rs-H zoning district is applied to areas appropriate for hotels and destination resorts, including condo-hotel projects, with limited ancillary commercial uses, including restaurants and health spas that directly support the primary use.

City of Palm Desert General Plan (Proposed Project)

The reconfiguration at the intersection of Gerald Ford Drive and Portola Avenue in the City of Desert Palm would be located on land designated by the City as Open Space - Public Reserves (OS/PR) (City of Palm Desert, 2006) (see Figure 4.9-2). The Open Space designation is assigned to those lands determined to be a special, important, or valuable natural resource that warrants protection. Mountainous and desert areas under public or quasi-public ownership are assigned the designation of Public Reserve (OS/PR). The designation allows the discretionary approval of trails, trailheads, and associated facilities, but does not allow vehicular access. The Open Space designation may also be used to define special resource areas or those that may pose threats or hazards to development. Lands important for their recreational, biological, or regional economic value may also be assigned an Open Space designation (City of Palm Desert, 2004).

The City of Palm Desert General Plan provides the following goal and policies relevant to the Proposed Project (City of Palm Desert, 2004):

Land Use Element

Goal: Maintenance and logical and efficient expansion of public services and facilities ensuring that they meet the needs of existing and future residents, business and visitors of the City.

Policy 1: The City shall pro-actively cooperate and coordinate with all providers of utility and public facilities and safety services in the community to assure adequate and quality levels of service.

Policy 2: The City shall encourage the timely development of public services and facilities in a manner, which assures adequate levels of service, while remaining compatible with existing and future land uses.

Community Design Element

Policy 3: Promote and maintain a distributed system of physical and service infrastructure that provides for the efficient delivery of utilities and public services.

Policy 16: Overhead utility lines shall be under grounded to the greatest extent practical through the establishment of an under grounding program and guidelines.

Water, Sewer and Utilities Element

Policy 11: Utility lines on major streets and scenic roadways shall have primary consideration for undergrounding, with pro-active consideration also for utility lines impacting residential neighborhoods.

Policy 12: Major utility facilities, including power and other transmission towers, cellular communication towers, and other viewshed intrusions, shall be designed and sited to assure minimal environmental and visual impacts and environmental hazards.

City of Palm Desert Zoning Ordinance

The reconfiguration at the intersection of Gerald Ford Drive and Portola Avenue in the City of Desert Palm would be located in an area with a Planned Residential 5 (PR-5) zoning designation (City of Palm Desert, 2009a). The PR zoning district is intended to provide for creative and imaginative design, flexibility in development, and the development of parcels of land as coordinated projects involving a mixture of residential densities and housing types, and community facilities, both public and private. It is also to provide for the optimum integration of urban and natural amenities within developments (City of Palm Desert, 2009b).

City of Indian Wells General Plan

The only portion of the Proposed Project or alternatives that would occur in the City of Indian Wells would be the installation, operation, and maintenance of new electrical equipment at the City of Indian Wells Substation. All work would occur within the existing footprint of the substation, within the substation's fenced perimeter. As such, land use and zoning designations would not be affected.

The City of Indian Wells General Plan does not have any goals, policies, or objectives applicable to the Proposed Project (City of Indian Wells, 1999).

4.9.2 Significance Criteria

Based on guidance provided by the California Environmental Quality Act (CEQA) regarding what constitutes a significant environmental effect (Guidelines Section 15064, 15126, and Appendix G), a project would have a significant land use impact if it would:

a) Physically divide an established community;

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or

c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.9.3 Applicant Proposed Measures

SCE proposes to implement the applicant proposed measure (APM) defined below with respect to aeronautical considerations. No additional APMs are proposed by SCE for land use and planning.

> **APM LU-1.** Aeronautical Considerations. As indicated in the Study of Aeronautical Considerations (2007), SCE would submit notice to the FAA electronically, in accordance with FAA procedures and as far in advance of construction as possible.

4.9.4 Impacts and Mitigation Measures

Approach to Analysis

Although construction-related activities would not be considered to be land use impacts, activities that could affect adjacent land uses are discussed in Sections 4.1, *Aesthetics*; 4.3, *Air Quality*; 4.11, *Noise*; and 4.15, *Transportation and Traffic*. Construction-related impacts would be relatively short-term in nature (approximately 1.5 years) and would not continue after the project begins full operation. In general, the physical construction-related effects on adjacent land uses would be less than significant. Certain physical construction-related effects would require the mitigation measures identified in the sections mentioned above to reduce those impacts to less than significant levels. For analyses and discussions of these construction-related impacts, please refer to the above-identified sections.

As discussed above, the Proposed Project would include installation, operation, and maintenance of new electrical equipment at Mirage, Santa Rosa, Tamarisk, Concho, Indian Wells, Devers, Eisenhower, Farrell, Garnet, and Thornhill substations, as well as at the Edom Hill Communications Site. The proposed modifications at these substations and the communication site would consist solely of electrical and communication system and safety upgrades, and the associated construction, operation, and maintenance activities would constitute a continuation of current land use conditions at these sites. Proposed modifications to the Mirage, Santa Rosa, Tamarisk, Concho, Indian Wells, Devers, Eisenhower, Farrell, Garnet, and Thornhill substations, and the Edom Hill Communications Site would not have significant land use impacts; therefore, potential impacts will not be discussed further in this section.

a) Physical division of an established community.

Impact 4.9-1: The Proposed Project could physically divide an established community. *Less than significant* (Class III)

Subtransmission Line and 220 kV Loop-In Alignments

Construction of the proposed Farrell-Garnet 115 kV subtransmission line would occur almost entirely within existing SCE ROW and City of Palm Springs road franchise locations. The only new ROW would occur just north of the UPRR crossing, and would consist of approximately 0.8 mile through open desert. The existing and the new ROW for the construction of the proposed Farrell-Garnet subtransmission line would not restrict access or constitute a physical barrier to an established or contemplated community.

Construction of the proposed Mirage-Santa Rosa 115 kV subtransmission line and the proposed Devers-Coachella Valley 220 kV Loop-In would be located entirely within existing SCE ROW and/or existing Caltrans and/or Riverside County road franchise locations. These portions of the Proposed Project would not require additional ground surface ROW, nor would they restrict access or constitute a physical barrier to an established or contemplated community. Therefore, the proposed subtransmission lines and the proposed 220 kV loop-in would have a less than significant impact with regard to the physical division of an established community.

115 kV Reconfigurations

All subtransmission line reconfigurations would occur within existing SCE ROW or on city road franchise locations currently used by SCE for utility purposes. The reconfigurations would not permanently block roadways, restrict access, or constitute a physical barrier to any of the cities in which they are located. Therefore, the proposed 115 kV reconfigurations would have a less than significant impact with regard to the physical division of an established community.

Mitigation: None required.

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b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.

To determine the Proposed Project's consistency with applicable plans and polices, the following land use consistency analysis is provided. However, the CPUC has sole and exclusive jurisdiction over the siting and design of the Proposed Project. As discussed in the Setting, the cities and County in which the Proposed Project would be located do not have jurisdiction over the project, and the Proposed Project would therefore be exempt from local land use and zoning regulations and discretionary permitting. Therefore, this land use consistency analysis is provided for informational purposes only. Nevertheless, General Order No. 131-D, Section XIV.B requires that in locating a project "the public utility shall consult with local agencies regarding land use matter."

Impact 4.9-2: The Proposed Project could conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the Proposed Project adopted for the purpose of avoiding or mitigating an environmental effect. *Less than significant* (Class III)

Riverside County General Plan

As discussed in the Setting, the Proposed Project would traverse land designated as Community Development. This land use is subdivided into more detailed land use designations at the area plan level. As such, compatibility with designated land uses in Riverside County is discussed below, under the Western Coachella Valley Area Plan.

Western Coachella Valley Area Plan

The proposed Devers-Coachella Valley 220 kV Loop-In and the proposed Mirage-Santa Rosa subtransmission line would traverse and/or be adjacent to the following Western Coachella Valley Area Plan land use designations: CR, MDR, MHDR, PF, RR, and VLDR. The Riverside County General Plan describes land uses permitted within the Western Coachella Valley and other area plans, but does not discuss the allowance or disallowance of subtransmission or transmission line facilities within any of these land use designations. However, as discussed in the Setting, the proposed Mirage-Santa Rosa subtransmission line and proposed 220 kV loop-in would be located entirely within existing SCE ROW and Riverside County road franchise locations on land currently used by SCE for utility purposes. Given the nature of the modifications, the associated construction, operation, and maintenance activities associated with the Proposed Project in the Western Coachella Valley Area would constitute a continuation of current land use. Furthermore, per General Order No. 131-D, SCE would obtain input from Riverside County regarding land-use matters related to the exact siting of the Proposed Project components prior to project construction.

Bureau of Land Management (BLM) Land

As described in the Setting, the proposed Farrell-Garnet subtransmission line would traverse approximately 750 feet of BLM land. However, the proposed subtransmission line would occur within existing ROW designated for subtransmission line use on BLM lands, and would not conflict with other uses on BLM lands. Therefore, there would be no conflict with BLM policies.

Riverside County Airport Land Use Compatibility Plan

The proposed Farrell-Garnet subtransmission line would be located within Compatibility Zones D and E of the Riverside County Airport Land Use Compatibility Plan. Per Policy 1.5.3, actions within these zones that may warrant review by the ALUC include proposals for new development (including buildings, antennas, and other structures) having a height of more than 150 feet. However, the poles that would be installed as part of the Proposed Project include new Light-Weight Steel (LWS) poles with a height of 65 to 80 feet, of which 10 feet would be buried, as well as new Tubular Steel Poles (TSPs) that would be 70 to 100 feet above ground. Therefore, the tallest new structures would not exceed the threshold height of 150 feet. Therefore, the Proposed Project would not conflict with Policy 1.5.3.

Per Policy 4.3.3 (e), ALUC review is required for any proposed object taller than 100 feet within Compatibility Zone E. Because the tallest new poles would be a maximum of 100 feet, the proposed Farrell-Garnet subtransmission line would likely be consistent with Policy 4.3.3 (e) and may not trigger ALUC review. However, per Policy 4.3.3 (d), ALUC review is required for any proposed object taller than 70 feet within Compatibility Zone D. Because TSP poles taller than 70 feet may be proposed to be located within Zone D, ALUC review may be triggered.

However, SCE proposes to implement APM LU-1 with respect to aeronautical considerations for the proposed Farrell-Garnet subtransmission line and the 115 kV reconfigurations at the intersection of Varner Road and Date Palm Drive, and the installation of two TSPs and the 115 kV subtransmission line rearrangements at Eisenhower Substation. Per APM LU-1, SCE has committed to submitting notice to the Federal Aviation Administration (FAA) electronically, in accordance with FAA procedures and as far in advance of construction as possible. As such, potential conflicts with the Riverside County Airport Land Use Compatibility Plan would be less than significant.

Riverside County Zoning Ordinance

The proposed Devers-Coachella Valley 220 kV Loop-In and the proposed Mirage-Santa Rosa subtransmission line would traverse and/or be located adjacent to Riverside County parcels zoned as R-1 and R-3-6000. According to the Riverside County Zoning Ordinance, Section 18.29, *Public Use Permits*, public utilities may be permitted in any zone classification provided that a public use permit is granted. While SCE, in accordance with General Order 131-D, would obtain input from Riverside County regarding land use matters related to siting (i.e., the exact location of proposed facilities), a use permit is a discretionary land use instrument, and SCE would not be required to obtain a use permit from Riverside County prior to project approval.

City of Palm Springs General Plan

The proposed Farrell-Garnet subtransmission line would traverse and/or be located adjacent to parcels designated as Public/Utilities, Neighborhood/ Community Commercial, Low Density Residential, Open Space-Water, Desert, Open Space-Conservation, Regional Business Center, Open Space-Mountain, and Industrial. The City of Palm Springs County General Plan does not discuss the allowance or disallowance of subtransmission line facilities within these land use designations. However, the proposed subtransmission line would occur almost entirely within existing SCE ROW and existing City of Palm Springs road franchise locations. The only new proposed SCE ROW would occur just north of the UPRR crossing, and would consist of approximately 0.8 mile through open desert. Consequently, the associated construction, operation, and maintenance activities associated with the Farrell-Garnet subtransmission line in the City of Palm Springs would primarily constitute a continuation of current land use. Furthermore, SCE would obtain input from the City of Palm Springs regarding land-use matters related to the siting of the Proposed Project prior to project construction.

City of Palm Springs Zoning Ordinance

The proposed Farrell-Garnet subtransmission line would traverse and/or be located adjacent to City of Palm Springs parcels zoned C-1, M-1-P, O-5, O-20, R-I-D, W, and IL. The City of Palm Springs Zoning Ordinance does not discuss subtransmission line facilities as uses permitted or uses prohibited for any of these zoning designations. However, the proposed modifications within the City of Palm Springs would occur almost entirely within existing SCE ROW and City of Palm Springs road franchise locations, and land currently used by SCE for utility purposes. The only new ROW would occur for the Proposed Project, just north of the UPRR crossing, and would consist of approximately 0.8 mile through open desert. Therefore, the Proposed Project would not conflict with the City of Palm Springs Zoning Ordinance.

City of Cathedral City General Plan

The proposed reconfiguration at Varner Road and Date Palm Drive would occur in a location designated by the City of Cathedral City General Plan as OS-P. The City of Cathedral City General Plan does not discuss the allowance or disallowance of subtransmission line facilities within this land use designation. However, the proposed reconfiguration would be located where SCE has existing subtransmission lines and poles. Consequently, the associated construction, operation, and maintenance activities associated with the reconfigurations in the City of Cathedral City would constitute a continuation of current land use. Therefore, the Proposed Project would not conflict with the City of Cathedral City General Plan.

City of Cathedral City Zoning Ordinance

The proposed reconfigurations at Varner Road and Date Palm Drive would occur in a location zoned by the City of Cathedral City as OS. Public utility structures and public service facilities may be permitted within OS zones subject to a conditional use permit. While SCE would obtain input from the City of Cathedral City regarding land use matters related to siting (i.e., exact location of proposed facilities), a use permit is a discretionary land use instrument, and SCE would not be required to obtain a use permit from the City of Cathedral City prior to project approval in accordance with General Order 131-D.

City of Rancho Mirage General Plan

The proposed reconfiguration that would occur in the City of Rancho Mirage at Dinah Shore Drive and Bob Hope Drive would be located adjacent to areas with the following land use designations: R-M, C-C, C-G, and Rs-H. A portion of the reconfiguration would also fall within an overlay zone that designates the land as held in the Tribal Trust of the Agua Caliente Band of Cahuilla Indians. The City of Rancho Mirage General Plan does not discuss the allowance or disallowance of subtransmission line facilities within these land use designations. However, the proposed reconfiguration would be located where SCE has existing subtransmission lines and poles. Consequently, the associated construction, operation, and maintenance activities associated with the Proposed Project in the City of Rancho Mirage would constitute a continuation of current land use. Therefore, the Proposed Project would not conflict with the City of Rancho Mirage General Plan.

City of Rancho Mirage Zoning Ordinance

The proposed reconfiguration that would occur in the City of Rancho Mirage at Dinah Shore Drive and Bob Hope Drive would be located adjacent to areas with following zoning designations: R-M, C-C, C-G, and Rs-H. A portion of the reconfiguration would also fall within an overlay zone that designates the land as held in the Tribal Trust of the Agua Caliente Band of Cahuilla Indians. Public utility structures and public service facilities may be permitted within R-M, C-C, C-G, and Rs-H zones subject to a conditional use permit (City of Rancho Mirage, 2009a). While SCE, in accordance with General Order 131-D, would obtain input from the City of Rancho Mirage regarding land use matters related to siting (i.e., location of proposed facilities), a use permit is a discretionary land use instrument and SCE would not be required to obtain a use permit from the City of Rancho Mirage prior to project approval.

City of Palm Desert General Plan

The proposed reconfiguration that would occur in the City of Palm Desert at Gerald Ford Drive and Portola Road would be located on land designated by the City of Palm Desert General Plan as OS/PR (City of Palm Desert, 2006). The City of Palm Desert General Plan does not discuss the allowance or disallowance of subtransmission line facilities within this land use designation. However, the proposed reconfiguration would be located where SCE has existing subtransmission lines and poles. Consequently, the associated construction, operation, and maintenance activities associated with the Proposed Project in the City of Palm Desert would constitute a continuation of current land use. Therefore, the Proposed Project would not conflict with the City of Palm Desert General Plan.

City of Palm Desert Zoning Ordinance

The proposed reconfiguration that would occur in the City of Palm Desert at Gerald Ford Drive and Portola Road would be located in an area with a PR-5 zoning designation (City of Palm Desert, 2009a). Public utility structures may be permitted within PR-5 zones subject to a conditional use permit (City of Rancho Mirage, 2009a). SCE would obtain input from the City of Palm Desert regarding land use matters related to siting (i.e., the exact location of proposed facilities); however, a use permit is a discretionary land use instrument, and SCE would not be required to obtain a use permit from the City of Palm Desert prior to project approval.

Mitigation: None required.

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c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact 4.9-3: The Proposed Project could conflict with provisions set forth in the Coachella Valley Multi-Species Conservation Plan. ***Less than significant with mitigation*** **(Class II)**

The proposed Farrell-Garnet 115 kV subtransmission line would be constructed within the boundaries of the Whitewater Floodplain Conservation Area, which is a part of the Coachella

Valley Multi-Species Habitat Conservation Plan (CVMSHCP). As discussed in Section 4.4, *Biological Resources*, the Proposed Project would not introduce any subtransmission or transmission lines or substations where they do not already occur, except for the approximately 0.8-mile section of the proposed Farrell-Garnet alignment immediately north of the UPRR, which would be outside of the Whitewater Floodplain Conservation Area. Furthermore, implementation of APM BIO-1 through BIO-11, in conjunction with Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10 (see Section 4.4, *Biological Resources*) would ensure that the Proposed Project does not conflict with the CVMSHCP.

> **Mitigation Measures:** Implement Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10 (see Section 4.4, *Biological Resources*).

Significance after Mitigation: Less than Significant.

4.9.5 Cumulative Impacts

The geographic context for the cumulative impacts associated with land use and planning issues are the cities (mentioned above) and the unincorporated communities of western Coachella Valley in Riverside County, which assumes full buildout of the Proposed Project, in combination with build out of the projects listed in Section 3.6, *Cumulative Projects.*

As noted in Section 3.6, *Cumulative Projects*, a number of projects are planned within the project area and would have the potential to be constructed simultaneously with the Proposed Project. All potential Proposed Project land use impacts resulting from temporary construction activities, including temporary increases in noise and dust, decreased air quality from construction vehicles, odors from construction equipment, safety issues, loss of vegetation, and access issues are analyzed in the corresponding sections of this EIR (see Sections 4.1, *Aesthetics*; 4.3, *Air Quality*; 4.4, *Biological Resources*; 4.11, *Noise*; and 4.15, *Transportation and Traffic*). From an operations and maintenance perspective, the Proposed Project would not be cumulatively considerable because the projects discussed in Section 3.6, *Cumulative Projects,* are representative of the ongoing level of development in the region and would all be required to be consistent with applicable land use plans, policies, or regulations of the agencies with jurisdiction over the respective projects. Therefore, implementation of the Proposed Project would not result in significant cumulative impacts to land use and planning. Impacts would be mitigated to less than significant (Class II).

4.9.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional

power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Under the No Project Alternative, none of the facilities or infrastructure upgrades associated with the Proposed Project evaluated in this EIR would be constructed by SCE. However, SCE would be required to design a new project in order to satisfy the objectives of the Proposed Project. The No Project Alternative would have the potential to divide an established community depending on its location. Design and siting considerations could prevent such an impact; however, given the highly speculative nature of the alternative, impacts would be considered potentially significant.

The No Project Alternative would have the potential to cross a large number of different land uses depending on its location. In many cases it is likely that infrastructure included in the No Project Alternative may be inconsistent with local land use designations. However, the CPUC would have sole and exclusive jurisdiction over the siting and design of the No Project Alternative. Similar to the Proposed Project, the No Project Alternative would be exempt from local land use and zoning regulations and discretionary permitting. Therefore, impacts would be considered less than significant. Nevertheless, General Order No. 131-D, Section XIV.B requires that "the public utility shall consult with local agencies regarding land use matter."

The No Project Alternative would have the potential to conflict with the CVMSHCP depending on its location and design. Therefore, impacts to habitat conservation plans within the study area would be potentially significant.

Alternative 2

Construction, operations, and maintenance activities that would be associated with Alternative 2 would be similar to those that would occur under the proposed Farrell-Garnet subtransmission line. Unlike the proposed Farrell-Garnet subtransmission line, the Alternative 2 subtransmission line would not contain any new ROW. However, as with the proposed subtransmission line, the Alternative 2 line would not permanently block roadways, or restrict access or constitute a physical barrier to the City of Palm Springs; therefore, impacts relating to the physical division of an established community would be less than significant (Class III). Also, the Alternative 2 alignment traverses a portion of the CVMSHCP's Whitewater Floodplain Conservation Area. Like the proposed Farrell-Garnet subtransmission line, implementation of APM BIO-1 through BIO-11, and Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10 (see Section 4.4, *Biological Resources*), would ensure that conflicts with HCPs would be less than significant with mitigation (Class II).

The Alternative 2 subtransmission line would be located entirely within the City of Palm Springs, and land use and zoning impacts within the City would be the same as the proposed Farrell-Garnet subtransmission line (Class III). However, the Alternative 2 subtransmission line would

cross some different land use and zoning designations; therefore, a land use consistency analysis is provided below.

Riverside County Airport Land Use Compatibility Plan. The Alternative 2 subtransmission line would traverse three Compatibility Zones of the Riverside County Airport Land Use Compatibility Plan that would not be traversed by the proposed Farrell-Garnet subtransmission line, including Compatibility Zones A, B1, and C. Like the proposed Farrell-Garnet subtransmission line, this alternative subtransmission line would also cross Zones D and E. However, the first approximately three miles of the subtransmission line (from Farrell Substation to Four Seasons Boulevard) would be underground. Therefore, the Alternative 2 subtransmission line would not include new poles in Zones A or B1. The alternative would include new LWS poles in Zones C, D, and E, and a new riser pole, which would be up to 95 feet tall, in Zone C.

As with the proposed Farrell-Garnet subtransmission line, the Alternative 2 subtransmission line would not conflict with Policies 1.5.3 or 4.3.3 (e). Alternative 2 could trigger ACLU review per Policy 4.3.3 (d) if it requires poles taller than 100 feet within Zones C or D. Regardless, SCE would obtain input from Riverside County regarding land-use matters related to the siting of the Alternative 2 subtransmission line prior to project construction. Furthermore, under APM LU-1, SCE has committed to submitting notice to the FAA electronically, in accordance with FAA procedures, and as far in advance of construction as possible. As such, potential conflicts with the Riverside County Airport Land Use Compatibility Plan would be less than significant (Class III).

City of Palm Springs General Plan. The Alternative 2 alignment traverses or is adjacent to ten City of Palm Springs General Plan land use designations not traversed by the proposed Farrell-Garnet subtransmission line, including High Density Residential, Open Space-Parks/Recreation, Very Low Density Residential, Industrial, Airport, Office, School, Public/Quasi-Public, Mixed Use/Multi-Use, and Medium Density Residential. The City of Palm Springs General Plan does not discuss the allowance or disallowance of subtransmission line facilities within these land use designations. Furthermore, the Alternative 2 subtransmission line would occur entirely within existing SCE ROW, Caltrans or City of Palm Springs road franchise locations, or on land currently used for electricity distribution by SCE. As such, the Alternative 2 subtransmission line would not conflict with the City of Palm Springs General Plan.

City of Palm Springs Zoning Ordinance. The Alternative 2 alignment traverses or is adjacent to nine City of Palm Springs zoning designations not traversed by the Proposed Project, including C-D-N, C-S-C, GR5, N, O, P, R-1-C, R-2, and PD. The City of Palm Springs Zoning Ordinance does not discuss subtransmission line facilities under uses permitted or uses prohibited for any of these zoning designations. However, the subtransmission line under Alternative 2 would occur almost exclusively within existing SCE ROW, Caltrans or City of Palm Springs road franchise locations, or on land currently used for electricity distribution by SCE. Therefore, Alternative 2 would not conflict with the City of Palm Springs Zoning Ordinance.

Alternative 3

Construction, operations, and maintenance activities associated with the Alternative 3 subtransmission line would be similar to what would occur under the proposed Farrell-Garnet subtransmission line. However, unlike the proposed Farrell-Garnet subtransmission line, the Alternative 3 subtransmission line would not require any new ROW. Like the proposed Farrell-Garnet subtransmission line, the Alternative 3 subtransmission line would not permanently block roadways, or restrict access or constitute a physical barrier to the City of Palm Springs; therefore, impacts relating to the physical division of an established community would be less than significant (Class III). Also, the Alternative 3 alignment traverses through a portion of the CVMSHCP's Whitewater Floodplain Conservation Area. Like the proposed Farrell-Garnet subtransmission line, implementation of APM BIO-1 through BIO-11, and Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10 (see Section 4.4, *Biological Resources*), would ensure that conflicts with HCPs would be less than significant with mitigation (Class II).

The Alternative 3 subtransmission line would be located entirely within the City of Palm Springs, and land use and zoning impacts within the City would be the same as those that would occur under the proposed Farrell-Garnet subtransmission line (Class III). However, the Alternative 3 subtransmission line would cross some different land use and zoning designations; therefore, a land use consistency analysis is provided below.

Riverside County Airport Land Use Compatibility Plan. The Alternative 3 subtransmission line would traverse three Compatibility Zones of the Riverside County Airport Land Use Compatibility Plan not traversed by the proposed Farrell-Garnet subtransmission line, including Compatibility Zones A, B1, and C. Like the proposed Farrell-Garnet subtransmission line, this alternative alignment also crosses Zones D and E. However, the first approximately 3.6 miles of this alternative subtransmission line (from Farrell Substation to Indian Canyon Drive) would be underground. Therefore, the Alternative 3 subtransmission line would not include new poles in Zones A or B1 because those portions of the line would be underground. The alternative would include new LWS poles in Zones C, D, and E, and a new riser pole, which would be up to 95 feet tall, in Zone C.

As with the proposed Farrell-Garnet subtransmission line, the Alternative 3 subtransmission line would not conflict with Policies 1.5.3 or 4.3.3 (e). Alternative 3 could trigger ACLU review per Policy 4.3.3 (d) if it requires poles taller than 100 feet within Zones C or D. Regardless, SCE would obtain input from Riverside County regarding land-use matters related to the siting of the Alternative 3 subtransmission line prior to project construction. Furthermore, under APM LU-1, SCE has committed to submitting notice to the FAA electronically, in accordance with FAA procedures, and as far in advance of construction as possible. As such, potential conflicts with the Riverside County Airport Land Use Compatibility Plan would be less than significant (Class III).

City of Palm Springs General Plan. The Alternative 3 alignment traverses or is adjacent to ten City of Palm Springs General Plan land use designations that would not be traversed by the Proposed Project, including High Density Residential, Open Space-Parks/Recreation, Very Low Density Residential, Industrial, Airport, Office, School, Public/Quasi-Public, Mixed Use/Multi-

Use, and Medium Density Residential. The City of Palm Springs General Plan does not discuss the allowance or disallowance of subtransmission line facilities within these land use designations. Furthermore, the Alternative 3 alignment within the City of Palm Springs occurs entirely within existing SCE ROW and Caltrans and City of Palm Springs road franchise locations. As such, the Alternative 3 subtransmission line would not conflict with the City of Palm Springs General Plan.

City of Palm Springs Zoning Ordinance. The Alternative 3 alignment traverses or is adjacent to ten City of Palm Springs zoning designations not traversed by the Proposed Project, including C-D-N, C-S-C, GR5, N, O, P, R-1-C, R-2, CM, and PD. The City of Palm Springs Zoning Ordinance does not discuss subtransmission line facilities under uses permitted or uses prohibited for any of these zoning designations. However, the Alternative 3 subtransmission line occurs within existing SCE ROW and existing Caltrans and City of Palm Springs road franchise locations. Therefore, the Alternative 3 subtransmission line would not conflict with the City of Palm Springs Zoning Ordinance.

Alternative 5

Construction, operations, and maintenance activities associated with the Alternative 5 subtransmission line would be similar to the proposed Mirage-Santa Rosa subtransmission line, although the Alternative 5 line would be mostly underground. Like the proposed Mirage-Santa Rosa subtransmission line, the Alternative 5 subtransmission line would not permanently block roadways, or restrict access or constitute a physical barrier to the cities or communities in Riverside County; therefore, impacts relating to the physical division of an established community would be less than significant (Class III). Also, the Alternative 5 alignment, like the proposed Mirage-Santa Rosa alignment, is not within any CVMSHCP Conservation Area, and therefore would not conflict with the CVMSHCP or any other HCP (No Impact).

Same as the proposed Mirage-Santa Rosa subtransmission line, the Alternative 5 subtransmission line would be located entirely within unincorporated Riverside County, and would result in the same land use and zoning impacts (Class III). However, the Alternative 5 alignment crosses some different land use and zoning designations; therefore, a land use consistency analysis is provided below.

Riverside County General Plan. The Alternative 5 alignment traverses land designated as Community Development. This land use is subdivided into more detailed land use designations at the area plan level. As such, compatibility with designated land uses in Riverside County is discussed below, under the Western Coachella Valley Area Plan.

Western Coachella Valley Area Plan. The Alternative 5 alignment does not traverse and is not adjacent to any Western Coachella Valley Area Plan land use designations that are not also traversed or adjacent to the proposed Mirage-Santa Rosa alignment. Furthermore, the portions of the Alternative 5 alignment within unincorporated Riverside County are located entirely within

existing SCE ROW and existing Riverside County road franchise locations. Therefore, the Alternative 5 subtransmission line would not conflict with the Western Coachella Valley Area Plan.

Riverside County Zoning Ordinance. The Alternative 5 alignment traverses or is adjacent to four Riverside County zoning designations not traversed by the proposed Mirage-Santa Rosa subtransmission line alignment, including R-4, R-5, C-P-S, and C-1/C-P. According to the Riverside County Zoning Ordinance, Section 18.29, *Public Use Permits*, public utilities may be permitted in any zone classification provided that a public use permit is granted. While SCE, in accordance with General Order 131-D, would obtain input from Riverside County regarding land use matters related to siting (i.e., location of proposed facilities), a use permit is a discretionary land use instrument and SCE would not be required to obtain a use permit from Riverside County prior to project approval.

Alternative 6

Construction, operations, and maintenance activities associated with the Alternative 6 subtransmission line would be similar to the proposed Farrell-Garnet subtransmission line. Unlike the proposed Farrell-Garnet subtransmission line, the Alternative 6 subtransmission line would not require any new SCE ROW. Like the proposed Farrell-Garnet subtransmission line, the Alternative 6 subtransmission line would not permanently block roadways, or restrict access or constitute a physical barrier to any of the cities in which it is located; therefore, impacts relating to the physical division of an established community would be less than significant (Class III). The Alternative 6 alignment traverses a different portion of the CVMSHCP than the proposed Farrell-Garnet subtransmission line alignment, ending at the southern edge of the CVMSHCP's Willow Hole Conservation Area, near Varner Road and Date Palm Road in the City of Cathedral City. Nevertheless, like the proposed Farrell-Garnet subtransmission line, implementation of APM BIO-1 through BIO-11, and Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10 (see Section 4.4, *Biological Resources*), would ensure that conflicts with HCPs would be less than significant with mitigation (Class II).

The Alternative 6 alignment is partially within the City of Palm Springs and, unlike the proposed Farrell-Garnet subtransmission line alignment, it traverses through the City of Cathedral City. However, land use and zoning impacts within both cities would generally be the same as under the proposed Farrell-Garnet subtransmission line (Class III). The Alternative 6 alignment crosses some different land use and zoning designations; therefore, a land use consistency analysis is provided below.

Riverside County Airport Land Use Compatibility Plan. As with the proposed Farrell-Garnet subtransmission line, the Alternative 6 subtransmission line would not conflict with Policies 1.5.3 or 4.3.3 (e). Alternative 6 could trigger ACLU review per Policy 4.3.3 (d) if it requires poles taller than 100 feet within Zones C or D. Regardless, similar to the proposed Farrell-Garnet subtransmission line, SCE would obtain input from Riverside County regarding land-use matters

related to the siting of the Alternative 6 line prior to project construction. Furthermore, under APM LU-1 SCE has committed to submitting notice to the FAA electronically, in accordance with FAA procedures and as far in advance of construction as possible. Therefore, potential conflicts with the Riverside County Airport Land Use Compatibility Plan would be less than significant.

City of Palm Springs General Plan. The Alternative 6 alignment traverses and/or is adjacent to two City of Palm Springs General Plan land use designations not traversed by the proposed Farrell-Garnet subtransmission line alignment, including High Density Residential and Open Space-Parks/Recreation. The City of Palm Springs County General Plan does not discuss the allowance or disallowance of subtransmission line facilities within these land use designations. Furthermore, the Alternative 6 alignment within the City of Palm Springs is entirely within existing SCE ROW and City of Palm Springs road franchise locations. As such, the Alternative 6 subtransmission line would not conflict with the City of Palm Springs General Plan.

City of Palm Springs Zoning Ordinance. The Alternative 6 alignment traverses one City of Palm Springs zoning designation not traversed by the proposed Farrell-Garnet subtransmission line alignment, which is M-1. The City of Palm Springs Zoning Ordinance does not discuss subtransmission line facilities under uses permitted or uses prohibited for this zoning designation. However, the Alternative 6 subtransmission line within the City of Palm Springs would occur entirely within existing SCE ROW and City of Palm Springs road franchise locations. Therefore, the Alternative 6 subtransmission line would not conflict with the City of Palm Springs Zoning Ordinance.

City of Cathedral City General Plan. The Alternative 6 alignment traverses or is located adjacent to nine City of Cathedral City land use designations not traversed by the proposed Farrell-Garnet subtransmission line alignment, including RL, RR, RM, CN, CG, MU-U, I, OS-O, and OS-W. The City of Cathedral City General Plan does not discuss the allowance or disallowance of subtransmission line facilities within these land use designations. However, the alternative alignment with the City of Cathedral City is located entirely within existing Cathedral City road franchise locations and SCE ROW. Consequently, the associated construction, operation, and maintenance activities that would be associated with the Alternative 6 subtransmission line in the City of Cathedral City would constitute a continuation of current land use. Therefore, the Alternative 6 subtransmission line would not conflict with the City of Cathedral City General Plan.

City of Cathedral Zoning Ordinance. The Alternative 6 alignment traverses or is located adjacent to six City of Cathedral City zoning designations not traversed by the proposed Farrell-Garnet subtransmission line alignment, including R1, R2, RR, PCC, MU-U, and I-1. Public utility structures and public service facilities may be permitted within R2, PCC, and development in I-1 zones are subject to a conditional use permit. Public utility structures and public service facilities may be permitted within RR zones subject to a discretionary use permit. Public utility structures are not discussed as permitted or prohibited uses in R1 or MU-U zones. While SCE would obtain input from the City of Cathedral City regarding land use matters related to siting (i.e., location of

proposed facilities), a use permit is a discretionary land use instrument, and SCE would not be required to obtain a use permit from the City of Cathedral City prior to project approval, pursuant to General Order 131-D.

Alternative 7

Construction, operations, and maintenance activities associated with the Alternative 7 subtransmission line would be similar to the proposed Farrell-Garnet subtransmission line. Unlike the proposed Farrell-Garnet subtransmission line, the Alternative 7 line would not require any new SCE ROW. Like the proposed Farrell-Garnet subtransmission line, the Alternative 7 subtransmission line would not permanently block roadways, or restrict access or constitute a physical barrier to the City of Palm Springs or the City of Cathedral City; therefore, impacts relating to the physical division of an established community would be less than significant (Class III). The Alternative 7 alignment traverses a different portion of the CVMSHCP than the proposed Farrell-Garnet subtransmission line alignment, ending at the southern edge of the CVMSHCP's Willow Hole Conservation Area near Varner Road and Date Palm Road in the City of Cathedral City. Nevertheless, like the proposed Farrell-Garnet subtransmission line, implementation of APM BIO-1 through BIO-11, and Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10 (see Section 4.4, *Biological Resources*), would ensure that conflicts with HCPs would be less than significant with mitigation (Class II).

The Alternative 7 alignment is located partially within the City of Palm Springs and, unlike the proposed Farrell-Garnet subtransmission line alignment; it traverses through the City of Cathedral City. However, land use and zoning impacts within both cities would be generally the same as those that would under the proposed Farrell-Garnet subtransmission line (Class III). The Alternative 7 alignment would cross some different land use and zoning designations; therefore, a land use consistency analysis is provided below.

Riverside County Airport Land Use Compatibility Plan. As with the proposed Farrell-Garnet subtransmission line, the Alternative 7 subtransmission line would not conflict with Policies 1.5.3 or 4.3.3 (e). Alternative 7 could trigger ACLU review per Policy 4.3.3 (d) if it requires poles taller than 100 feet within Zones C or D. Regardless, similar to the proposed Farrell-Garnet subtransmission line, SCE would obtain input from Riverside County regarding land-use matters related to the siting of the Alternative 7 line prior to project construction. Furthermore, under APM LU-1 SCE has committed to submitting notice to the FAA electronically, in accordance with FAA procedures and as far in advance of construction as possible. Therefore, potential conflicts with the Riverside County Airport Land Use Compatibility Plan would be less than significant.

City of Palm Springs General Plan. The Alternative 7 alignment traverses and/or is adjacent to two City of Palm Springs General Plan land use designations not traversed by the proposed Farrell-Garnet subtransmission line alignment, including High Density Residential and Open Space-Parks/Recreation. The City of Palm Springs County General Plan does not discuss the

allowance or disallowance of subtransmission line facilities within these land use designations. Furthermore, the Alternative 7 alignment within the City of Palm Springs is entirely within existing SCE ROW and City of Palm Springs road franchise locations. As such, the Alternative 7 subtransmission line would not conflict with the City of Palm Springs General Plan.

City of Palm Springs Zoning Ordinance. The Alternative 7 alignment traverses one City of Palm Springs zoning designation not traversed by the proposed Farrell-Garnet subtransmission line alignment, which is M-1. The City of Palm Springs Zoning Ordinance does not discuss subtransmission line facilities under uses permitted or uses prohibited for this zoning designation. However, the Alternative 7 subtransmission line within the City of Palm Springs would occur entirely within existing SCE ROW and City of Palm Springs road franchise locations. Therefore, the Alternative 7 subtransmission line would not conflict with the City of Palm Springs Zoning Ordinance

City of Cathedral City General Plan. The Alternative 7 alignment traverses or is located adjacent to 11 City of Cathedral City land use designations not traversed by the proposed Farrell-Garnet subtransmission line alignment, including RL, RR, RM, CN, CG, MU-U, I, OS-O, OS-W, P/S, and BP. The City of Cathedral City General Plan does not discuss the allowance or disallowance of subtransmission line facilities within these land use designations. However, within the City of Cathedral City, the alternative line would be located entirely within existing Cathedral City road franchise locations and SCE ROW. Consequently, the associated construction, operation, and maintenance activities associated with the Alternative 7 subtransmission in the City of Cathedral City would constitute a continuation of current land use. Therefore, the Alternative 7 subtransmission line would not conflict with the City of Cathedral City General Plan.

City of Cathedral Zoning Ordinance. The Alternative 7 alignment traverses or is located adjacent to seven City of Cathedral City zoning designations not traversed by the proposed Farrell-Garnet subtransmission line alignment, including R1, R2, RR, PCC, MU-U, I-1, and NBP. Public utility structures and public service facilities may be permitted within R2, PCC, NBP, and I-1 zones subject to a conditional use permit. Public utility structures and public service facilities may be permitted within RR zones subject to a discretionary use permit. Public utility structures are not discussed as permitted or prohibited uses in R1 or MU-U zones. While SCE would obtain input from the City of Cathedral City regarding land use matters related to siting (i.e., location of proposed facilities), a use permit is a discretionary land use instrument, and SCE would not be required to obtain a use permit from the City of Cathedral City prior to project approval, pursuant to General Order 131-D.

References – Land Use, Planning, and Policies

City of Cathedral City, 2009a. *City of Cathedral City General Plan.* Amended June 24, 2009.

City of Cathedral City, 2009b. City of Cathedral City Zoning ordinance. Available at: http://www.cathedralcity.gov/index.aspx?page=185. Accessed November 17, 2009.

City of Indian Wells, 1999. *City of Indian Wells General Plan.* Adopted February 1, 1999.

City of Palm Desert, 2004. *City of Palm Desert General Plan*. Adopted March 2004.

City of Palm Desert, 2006. City of Palm Desert Land Use Map. Updated October 31, 2006.

City of Palm Desert, 2009a. City of Palm Desert Zoning Map. Updated January 28, 2009.

City of Palm Desert, 2009b. City of Palm Desert Zoning Ordinance. Available at: http://www.qcode.us/codes/palmdesert/view.php?topic=25&frames=off. Accessed November 13, 2009.

City of Palm Springs, 2007. *City of Palm Springs 2007 General Plan.* Adopted October 2007.

City of Palm Springs, 2009. City of Palm Springs Zoning Ordinance. Available at: http://www.qcode.us/codes/palmsprings/. Accessed November 12, 2009.

City of Rancho Mirage, 2005. *City of Rancho Mirage General Plan.* Adopted November 2005.

City of Rancho Mirage, 2009a. City of Rancho Mirage Zoning ordinance. Available at: http://www.qcode.us/codes/ranchomirage/. Accessed November 16, 2009.

City of Rancho Mirage, 2009b. Land Use and Zoning Map, City of Rancho Mirage. Published August 3, 2009.

Riverside County, 2003. *Riverside County General Plan.* Adopted October 7, 2003.

Riverside County, 2008. Riverside County Zoning Ordinance. Amended May 8, 2008.

Riverside County, 2009. Riverside County Land Information System. Available at: http://www3.tlma.co.riverside.ca.us/pa/rclis/index.html. Accessed November 11 and 12, 2009.

RCALUC (Riverside County Airport Land Use Commission), 2004. *Riverside County Airport Land Use Compatibility Plan Policy Document.* Adopted October 2004.

Southern California Edison (SCE), 2008, *Proponent's Environmental Assessment for the Devers-Mirage 115 kV Subtransmission System Split Project,* 2008.

4.10 Mineral Resources

This section describes the existing conditions in the study area and evaluates the potential for the Proposed Project and alternatives to result in impacts to mineral resources.

4.10.1 Setting

Existing Mineral Resources

The Santa Rosa and San Jacinto Mountains, including the high desert areas, have a history of mining that dates back to the late 1800s. Mines in the Santa Rosa and San Jacinto National Monument have produced asbestos, beryllium, gold, limestone, tungsten, copper, garnet, and tourmaline. With the exception of limestone, however, these mineral deposits have not been extensively mined, are limited, or are not precisely known (City of Palm Springs, 2007).

Eroding hills and mountains surrounding the Coachella Valley have filled the valley with significant amounts of sand and gravel, known collectively as aggregate. Aggregate is used for asphalt, concrete, road base, stucco, plaster, and other similar construction materials (City of Cathedral City, 2002). The Palm Springs Production-Consumption (P-C) Region is a 631 square mile area in the Coachella Valley that is heavily mined for aggregate. This region covers the area east of Cabazon, south of Morongo Valley and Joshua Tree National Park, west of the Mecca Hills, and north of the community of Mecca and the San Jacinto Mountains (CGS, 2007). According to California Geological Survey, the Palm Springs P-C Region has 30,072 acres classified as land where significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists (CGS, 2007).

The California Geological Survey (CGS) has classified the regional significance of mineral resources in accordance with the California Surface Mining and Reclamation Act of 1975 (SMARA). Mineral Resource Zones (MRZs) delineated by CGS identify the presence and significance of mineral deposits within the study area. In general, areas subject to pressures of urbanization are zoned by the CGS, while those areas outside these areas are not. The designations are (CGS, 2007):

- **MRZ-1:** Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic-geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high. MRZ-2 designations are as follows:
  - *MRZ-2a*: Areas where geologic data indicate that significant measured or indicated mineral resources are present; and

  - *MRZ-2b*: Areas where geologic data indicate that significant inferred mineral resources are present.

- **MRZ-3:** Areas containing known or inferred mineral occurrences of undetermined mineral resource significance.

The study area contains three locations with MRZ-2 designations:

- Within the City of Palm Springs, the CGS has classified Northern Palm Springs as MRZ-2a. This area contains Portland cement concentrate (PCC) grade aggregate (CGS, 2007). Granite Construction operates the Garnet Pit located south of Garnet Hill and Interstate 10, and east of Indian Canyon Drive, which is mined for construction grade aggregate. (The area was historically mined by Massey Rock and Sand Company.) The annual tonnage mined from Garnet Pit has fluctuated tremendously over the last 12 years depending on the economy, ranging from very little to over 600,000 tons per year (Malone, 2008).

- Approximately one mile north of the community of Thousands Palms, 50.5 acres of land are designated MRZ-2a (CGS, 2007). This area contains 27 acres in an alluvial fan of a small drainage along the Indio Hills. As of 2001, the deposit held an estimated 2.1 million tons of aggregate resources (City of Palm Desert, 2004). E.L. Yeager Construction Company/Skanska currently holds the permit to mine the Thousand Palms mine in this area (CGS, 2007), and as of 2007, the mine was active and running (McGee, 2008). According to the Riverside County Planning Department, there are approximately 135 acres permitted for mining (McGee, 2008).

- Approximately two miles northwest of Thousand Palms is an MRZ-2 area with three mines permitted for sand, gravel, and decorative stone extraction (CGS, 2007; McGee, 2008). The three permitted mines are (County of Riverside, 2008):

  a. Mesa Blanca Mine, operated by Gary Butler. Mine status is “Approved Not Active,” meaning the mine has an active permit but has not completed a special inspection. The mine is permitted for up to 225,000 tons per year on average.

  b. Sam Jones Mine, operated by Sam Jones Mining Company has a status of “Interim Management Plan” (IMP), meaning the mine is idle but may come out of Interim Management Plan status at any time if the mine reports it is producing more than the threshold.

  c. Vista Mine, operated by James Rue Construction, has a mine status of “Active,” and the mine is permitted for up to 375,000 tons per year.

Regulatory Context

State

Surface Mining and Reclamation Act

The primary State law concerning conservation and development of mineral resources is the California Surface Mining and Reclamation Act (SMARA) of 1975, as amended to date. SMARA is found in the California Public Resources Code (PRC), Division 2, Chapter 9, Section 2710, et seq.

Depending on the region, natural resources can include geologic deposits of valuable minerals used in manufacturing processes and the production of construction materials. SMARA was enacted in 1975 to limit new development in areas with significant mineral deposits. SMARA calls for the State Geologist to classify the lands within California based on mineral resource availability. In addition, the California Health and Safety Code requires the covering, filling, or fencing of abandoned shafts, pits, and excavations (California Health and Safety Code Sections 24400-03). Furthermore, mining may also be regulated by local government, which has the authority to prohibit mining pursuant to its general plan and local zoning laws.

SMARA states that the extraction of minerals is essential to the continued economic well-being of the State and to the needs of society, and that reclamation of mined lands is necessary to prevent or minimize adverse effects on the environment and to protect the public health and safety. The reclamation of mined lands will permit the continued mining of minerals and will provide for the protection and subsequent beneficial use of the mined and reclaimed land. Surface mining takes place in diverse areas where the geologic, topographic, climatic, biological, and social conditions are significantly different, and reclamation operations and the specifications therefore may vary accordingly (California Public Resources Code Section 2711).

Local

Riverside County General Plan

The Riverside County General Plan Land Use Element includes the following applicable policies related to mineral resources (County of Riverside, 2003):

> *Policy LU 21.1:* Require that surface mining activities and lands containing mineral deposits of statewide or of regional significance comply with Riverside County Ordinances and the SMARA.
>
> *Policy LU 21.2:* Protect lands designated as Open Space-Mineral Resource from encroachment of incompatible land uses through buffer zones or visual screening.

City of Palm Springs General Plan

The City of Palm Springs General Plan Recreation, Open Space, and Conservation Element includes the following applicable goal and policies related to mineral resources (City of Palm Springs, 2007):

> *Goal RC8:* Employ the efficient, sustainable, and environmentally appropriate use and management of energy and mineral resources to ensure their availability for future generations.
>
> *Policy RC8.2:* Develop zoning regulations that restrict encroachment of incompatible land uses in areas that are conserved for mineral use, and minimize conflicts between extraction activities and other uses.

Cathedral City General Plan

The Cathedral City General Plan Open Space and Conservation Element includes the following applicable policy related to mineral resources (City of Cathedral City, 2002):

> *Policy 10:* The City shall, to the greatest extent possible, regulate development in the vicinity of significant mineral resources located in the City and its sphere-of-influence.

City of Rancho Mirage General Plan

The City of Rancho Mirage General Plan Conservation and Open Space Element includes the following applicable program (City of Rancho Mirage, 2005):

> *Program 1.B:* To the extent practical, monitor and influence development in the vicinity of significant mineral resources occurring within the City's Sphere of Influence.

City of Indian Wells General Plan

The City of Indian Wells General Plan does not include any applicable goals, objectives, or policies related to mineral resources (City of Indian Wells, 1996).

City of Palm Desert General Plan

The City of Palm Desert General Plan Energy and Mineral Resources Element does not include any applicable goals, objectives, or policies related to mineral resources (City of Palm Desert, 2004):

4.10.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, an impact resulting from the Proposed Project would be considered significant if it would result in:

a) Loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

b) Loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

4.10.3 Applicant Proposed Measures

No applicant proposed measures have been identified by SCE to reduce project impacts on mineral resources.

4.10.4 Impacts and Mitigation Measures

a) Loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Extraction operations exist within the Farrell-Garnet study area at the Garnet Pit, which is mined by Granite Construction. However, the proposed Farrell-Garnet 115 kV subtransmission line alignment is located nearly 2,000 feet north of the Garnet Pit and would not interfere with

extraction of economically viable sources of rock materials. Therefore, there would be no potential for the Proposed Project to result in the loss of a known mineral resource and there would be no impact (No Impact).

b) Loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Activities that would be associated with the Proposed Project would include pole and tower removal and replacement and substation upgrades, and would affect only a small area, the majority of which is located within existing right-of-way property and existing substation fence lines. While the proposed Farrell-Garnet 115 kV subtransmission line alignment traverses near one area currently used to extract known mineral resources (the Garnet Pit), construction and operation of the proposed subtransmission line would not significantly interfere with mining operations. Furthermore, while there are a number of areas designated as MRZ-2 by the CGS in the study area, none of the Proposed Project alignments or sites traverse these areas. Therefore, the Proposed Project would not result in the loss of any availability of locally-important minerals and there would be no impact (No Impact).

4.10.5 Cumulative Impacts

According to Section 15355 of the CEQA Guidelines, the incremental effect of individual projects that may combine to cause a significant cumulative impact must be considered when looking at the impacts of an individually proposed project. Typically, cumulative analysis is based upon the list of reasonably foreseeable projects provided in Section 3.6, *Cumulative Projects*. However, since the Proposed Project does not have an individual impact on mineral resources and other related reasonably foreseeable projects would be subject to review, it can be assumed that the Proposed Project would have no contribution to a cumulatively considerable impact to mineral resources (No Impact).

4.10.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) a new subtransmission and transmission line and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Under the No Project Alternative, none of the facilities or infrastructure upgrades associated with the Proposed Project evaluated in this EIR would be constructed by SCE. However, SCE would be required to design a new project in order to satisfy the objectives of the Proposed Project. If a project under the No Project Alternative scenario would be located within an area designated as MRZ-2 it would have the potential to result in the loss of known mineral resources of value to the

State or locally important resources. However, it is likely that various measures such as design and routing considerations could be made in order to avoid impacts to mineral resources.

Alternative 2

Alternative 2 would be located near the Garnet Pit; however, similar to the Proposed Project, this alternative would not interfere with mining operations and no impact would occur. A portion of Alternative 2 located north of San Rafael Road would cross through an area designated as MRZ-2. However, there is currently no aggregate extraction occurring in this area and pole replacement that would occur under this alternative would not obstruct or interfere with the ability to access this area. Therefore, implementation of Alternative 2 would not impact mineral resources in the study area (No Impact).

Alternative 3

Alternative 3 would be located directly adjacent to the Garnet Pit along Indian Canyon Drive; however, similar to the Proposed Project, this alternative would not interfere with operation of the mine and no impact would occur. A portion of the Alternative 3 alignment located along San Rafael Drive and Indian Canyon Drive would cross through an area designated as MRZ-2. However, there is currently no aggregate extraction occurring in this area with the exception of the Garnet Pit, and pole replacements that would occur under this alternative would not obstruct or interfere with the ability to access this area. Therefore, implementation of Alternative 3 would not impact mineral resources in the study area (No Impact).

Alternative 5

The nearest mines to Alternative 5 would include the Mesa Blanca Mine, Sam Jones Mine, and Vista Mine, all of which are located at least two miles from the alignment. Therefore, as with the Proposed Project, Alternative 5 would not interfere with operation of an existing mine and no impact would occur. Alternative 5 would not traverse any areas designated as MRZ-2. Therefore, implementation of Alternative 5 would not impact mineral resources in the study area (No Impact).

Alternative 6

Alternative 6 would be located over three miles from the Garnet Pit mine and would therefore have no impact to existing aggregate operations at the mine. Furthermore, the Alternative 6 alignment does not traverse any areas designated as MRZ-2. Therefore, implementation of Alternative 6 would not impact mineral resources in the study area (No Impact).

Alternative 7

Alternative 7 would be located over three miles from the Garnet Pit mine and would therefore have no impact to existing aggregate operations at the mine. Furthermore, the alignment for Alternative 7 does not traverse any areas designated as MRZ-2. Therefore, implementation of Alternative 7 would not impact mineral resources in the study area (No Impact).

References – Mineral Resources

California Geological Survey, Department of Conservation (CGS), 2007. *Update of Mineral Land Classifications for Portland Cement Concrete-grade Aggregate in the Palm Springs Production-consumption Region, Riverside County, California.* Update to CGS Special Report 159 (SR 159), Miller, 1988.

City of Cathedral City, 2002. *Cathedral City General Plan*, July 2002.

City of Indian Wells, 1996. *Indian Wells General Plan*, February 1996.

City of Palm Desert, 2004. *City of Palm Desert General Plan*, March 2004.

City of Palm Springs, 2007. *City of Palm Springs General Plan*, October 2007.

City of Rancho Mirage, 2005. *Rancho Mirage General Plan*, November 2005.

County of Riverside, 2003. *Riverside County General Plan*, October 2003.

County of Riverside, 2008. Riverside County Planning Department. Available online at: http://www.rctlma.org/planning/content/geninfo/surface_mine_list.aspx, accessed August 26, 2008.

Malone, Wade, 2008. Plant Superintendant, Granite Construction. Phone conversation August 26, 2008.

McGee, Ebony, 2008. Employee, Riverside County Planning Department. Phone conversation on September 2, 2008. (951-955-3299).

4.11 Noise

This section evaluates potential impacts on ambient noise levels from construction and operation of the Proposed Project and alternatives. The analysis presented below is based on review of the Proponent's Environmental Assessment (SCE, 2008), ambient noise measurements taken in the Proposed Project vicinity, and local noise ordinances and regulations set by cities and the County in the study area.

4.11.1 Setting

Noise Background

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA).

Noise Exposure and Community Noise

An individual's noise exposure is a measure of the noise experienced by the individual over a period of time. A noise level is a measure of noise at a given instant in time. However, noise levels rarely persist consistently over a long period of time. In fact, community noise varies continuously with time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. Background noise levels change throughout a typical day, but do so gradually, corresponding with the addition and subtraction of distant noise sources and atmospheric

conditions. The addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens) makes community noise constantly variable throughout a day.

These successive additions of sound to the community noise environment cause the community noise level to vary from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: The equivalent sound level is used to describe noise over a specified period of time, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

L_{max}: The instantaneous maximum noise level measured during the measurement period of interest.

L_{dn}: The energy average of the A-weighted sound levels occurring during a 24-hour period, and which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- subjective effects of annoyance, nuisance, dissatisfaction;
- interference with activities such as speech, sleep, learning; and
- physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers at industrial plants often experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individuals past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way the new noise compares to the existing noise levels to which one has adapted: the so called "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;

- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference when the change in noise is perceived but does not cause a human response;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. A ruler is a *linear* scale: it has marks on it corresponding to equal quantities of distance. One way of expressing this is to say that the ratio of successive intervals is equal to one. A *logarithmic* scale is different in that the ratio of successive intervals is not equal to one. Each interval on a logarithmic scale is some common factor larger than the previous interval. A typical ratio is 10, so that the marks on the scale read: 1, 10, 100, 1,000, 10,000, etc., multiplying the variable plotted on the x-axis 10. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather they combine logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Point sources of noise, including stationary mobile sources such as idling vehicles or onsite construction equipment, attenuate (lessen) at a rate of 6.0 dBA to 7.5 dBA per doubling of distance from the source, depending upon environmental conditions (e.g., atmospheric conditions, type of ground surface, etc.). Widely distributed noises such as a large industrial facility spread over many acres or a street with moving vehicles (a “line” source) would typically attenuate at a lower rate of approximately 3.0 to 4.5 dBA per doubling distance from the source (also dependent upon environmental conditions) (Caltrans, 1998).

Existing Ambient Noise Environment

The study area is located in the Coachella Valley area of Riverside County, California. Much of the study area experiences relatively low (40-55 dBA) noise levels due to the lack of loud noise sources. The main contributors to the noise environment along the Proposed Project and alternative subtransmission and transmission line alignments include vehicle traffic on nearby roads; airplane over flights; sounds emanating from residential neighborhoods, including voices and noises from household appliances; and naturally occurring sounds such as wind and wind-generated rustling. Additional noise sources include electrical and industrial devices and other man-made localized sources. Vehicle and over flight noises can range from approximately 50 to 80 dBA, depending on the distance from the source. Ambient natural noise sources such as wind can be expected to generate noise levels in the range of 45 to 55 dBA.

Ambient L_{eq} and L_{max} noise measurement data were collected to further characterize noise conditions in the vicinity of the Proposed Project and alternative alignments. Short-term

measurements were taken at six locations (see Table 4.11-1 for the measured noise levels). Figure 4.11-1a shows noise measurement locations in the Farrell-Garnet study area while Figure 4.11-1b shows noise measurement locations in the Mirage-Santa Rosa study area. Ambient

TABLE 4.11-1
AMBIENT NOISE LEVELS IN THE STUDY AREA

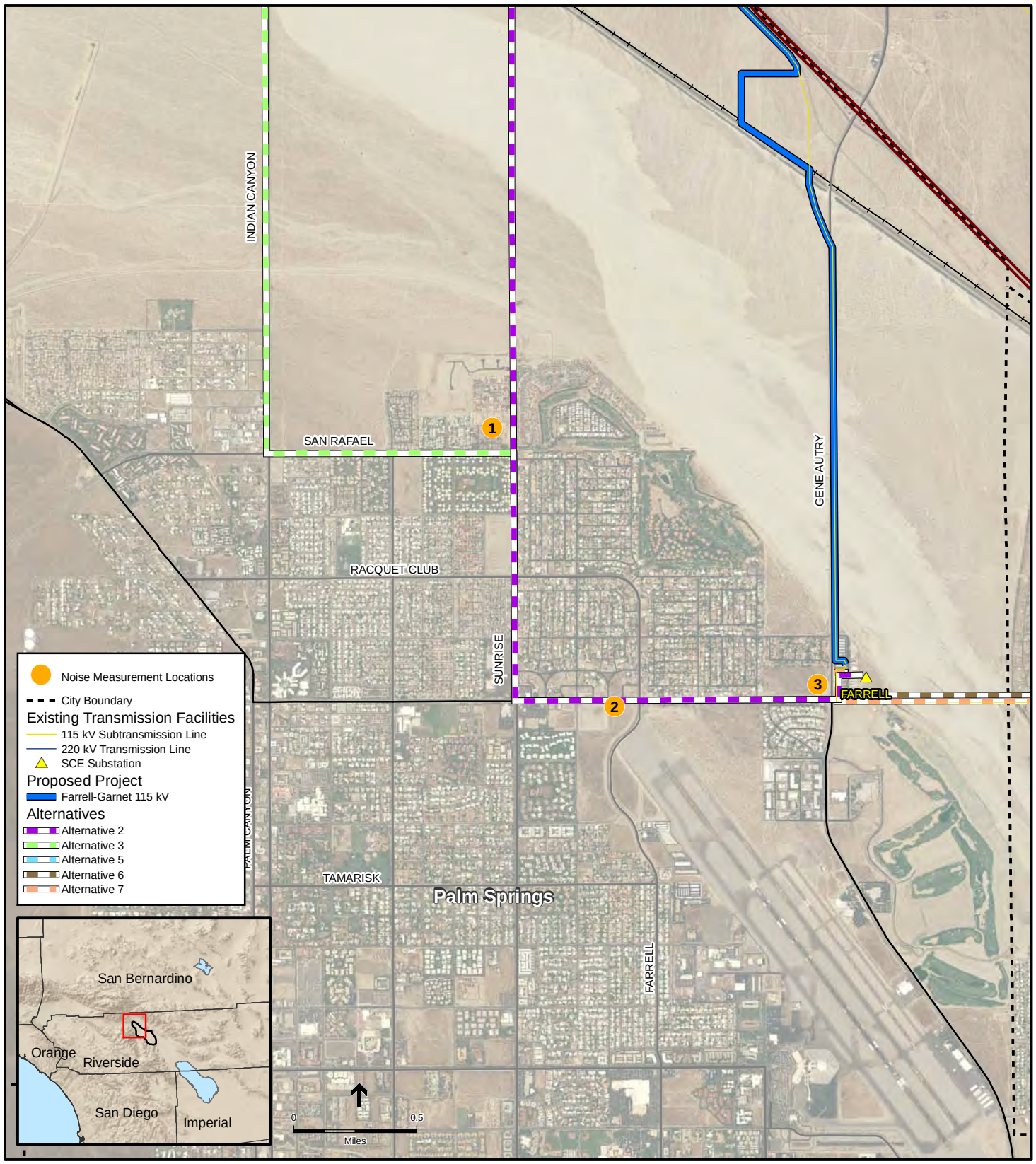
Measurement Location	Time	L_{eq}	L_{max}	Predominant Noise Sources
1. Sunrise Way				
Just west of Sunrise Way approximately 1,000 feet north of San Rafael Drive.	3:37 p.m.	54.9	76.1	Noise from residential appliances.
2. East Vista Chino and Park View Drive				
Near the corner of East Vista Chino and Park View Drive adjacent to residence.	3:15 p.m.	58.3	68.5	Automobile traffic on East Vista Chino.
3. North Gene Autry Trail				
Adjacent to North Gene Autry Trail, near a residence. Approximately 500 feet north of East Vista Chino and approximately 250 feet west of Farrell Substation.	2:55 p.m.	57.0	72.0	Automobile noises.
4. Vista de Oro				
Adjacent to Vista de Oro approximately 2,500 feet north of Ramon Road.	2:06 p.m.	44.2	55.5	Automobile noises.
5. Black Eagle and Chiricahua Drive				
At the corner of Black Eagle Drive and Chiricahua Drive. Approximately 1,500 feet west-southwest of the Mirage Substation.	1:35 p.m.	47.2	73.4	Automobile traffic on Ramon Road.
6. Bell Road and Elizabeth Drive				
At the corner of Elizabeth Drive and Bell Road adjacent to a residence. Approximately 100 feet from the existing 115 kV line.	1:05 p.m.	40.6	76.6	Airplanes flying overhead and residential activities.

NOTE: Short-term (ten minute) measurements were collected on Thursday, June 19, 2008.

L_{eq} noise levels in the study areas were between 40.6 and 58.3 dBA. The predominant noise source in the study area was automobile traffic.

Sensitive Receptors

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication, and can cause physiological and psychological stress and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hotels, hospitals, and nursing homes are considered to be the most sensitive to noise. Places such as churches, libraries, and cemeteries, where people tend to pray, study, and/or contemplate are also sensitive to noise. Commercial and industrial uses are considered the least noise-sensitive. The nearest sensitive receptors to each component of the Proposed Project and the alternatives are described in more detail below.

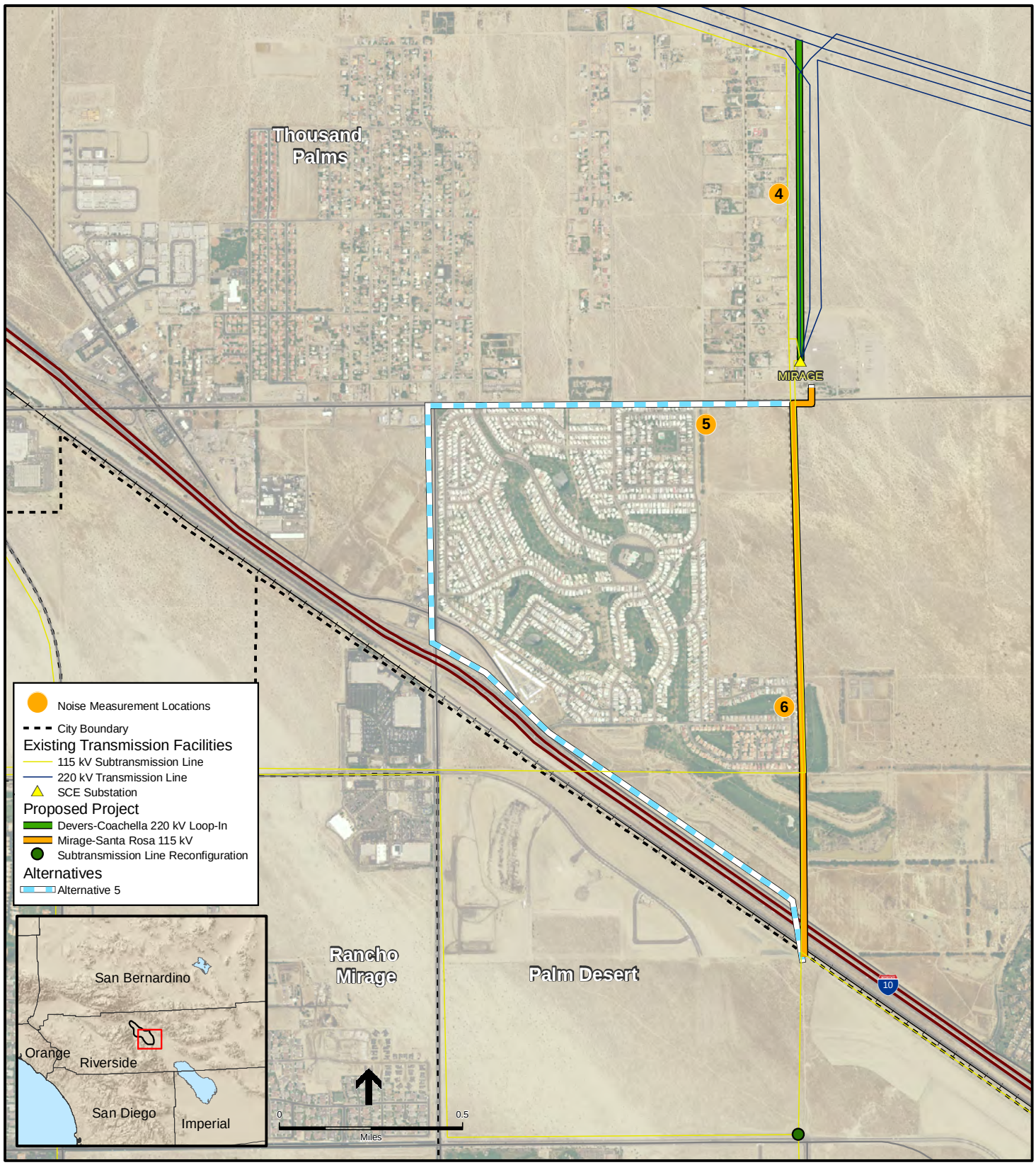


SOURCE: SCE, 2008

Devers-Mirage 115 kV Subtransmission System Split Project. 207059

Figure 4.11-1a

Noise Monitoring Locations
Farell-Garnet Study Area



SOURCE: SCE, 2008

Devers-Mirage 115 kV Subtransmission System Split Project. 207059

Figure 4.11-1b

Noise Monitoring Locations
Mirage-Santa Rosa Study Area

Farrell – Garnet Study Area

Proposed Project

The proposed Farrell-Garnet 115 kV subtransmission line would be 5.8 miles long, beginning at Farrell Substation and ending at Garnet Substation. The land along this alignment is primarily undeveloped; however, approximately 700 feet of the southern portion of the alignment borders an existing residential neighborhood. These residences are located along Norloti Street to the west of North Gene Autry Trail, approximately 150 feet from the proposed Farrell-Garnet subtransmission line alignment. Palm Springs Montessori School is approximately 1,300 feet south-southwest of the Farrell Substation.

The nearest receptors to the proposed Varner/Date Palm reconfiguration site are residences south of I-10 that are located over 5,000 feet to the southwest. The nearest receptors to the Edom communication site include a number of residences located along Moon Ranch Road, over 4,800 feet from the site.

Substations included in the Farrell-Garnet study area that would require modifications under the Proposed Project include the Devers, Garnet, Farrell, Thornhill, and the Eisenhower substations. Table 4.11-2 identifies the nearest sensitive receptor to each substation as well as the distance between the substation and receptor.

TABLE 4.11-2
SUBSTATION SENSITIVE RECEPTORS IN THE FARRELL-GARNET STUDY AREA

Substation	Distance to Nearest Sensitive Receptor	Receptor Description
Devers	800 feet	Residences located along Diablo road, south of 16th Avenue
Garnet	4,800 feet	Residences located north of the substation along Indian Avenue
Farrell	160 feet	Residences located to the west of the substation along Gene Autry Trail
Thornhill	32 feet	Residences located directly adjacent to the substation property line
Eisenhower	896 feet	Residences located west of the substation along East Mesquite Avenue

Alternative 2

The Alternative 2 alignment begins at the Farrell Substation and runs west along East Vista Chino for approximately 1.3 miles where it turns and heads north along North Sunrise Way. The alternative subtransmission line would continue north until reaching the existing SCE subtransmission line just south of Interstate 10. From here the line would continue in existing SCE ROW until reaching the Garnet Substation. The first 2.6 miles of the Alternative 2 alignment passes directly adjacent to residential land uses located along East Vista Chino and North Sunrise Way with the remainder crossing primarily through open space and undeveloped land. In addition to residential uses, this alternative would pass within 200 feet of the Montessori Elementary School of Palm Springs and the Desert Son-Shine Preschool and Kindergarten, both of which are located near the corner of East Vista Chino and North Sunrise Way. Other schools within half a mile of the alternative include Raymond Cree Middle School and First School of the Desert

Preschool-Childcare. The Alterative 2 subtransmission line would also be located immediately adjacent to a Jehovah's Witness church on East Vista Chino.

Alternative 3

The Alterative 3 alignment begins at Farrell Substation and runs west along East Vista Chino for approximately 1.3 miles where it turns and heads north along North Sunrise Way for approximately one mile until reaching San Rafael Drive. At San Rafael Drive the alternative subtransmission line would turn and head west for approximately one mile until reaching Indian Canyon Drive where it would head north until reaching the Garnet Substation. The first 3.8 miles of the Alternative 3 alignment pass directly adjacent to residential land uses along East Vista Chino, North Sunrise Way, San Rafael Drive, and Indian Canyon Drive while the remainder of the alignment crosses primarily through open space and undeveloped land. Schools within half a mile of the alternative alignment include Raymond Cree Middle School, First School of the Desert Preschool-Childcare, Vista Del Monte Elementary School, and Desert Highlands Head Start. The Alternative 3 alignment also passes within 200 feet of the Montessori Elementary School of Palm Springs and the Desert Son-Shine Preschool and Kindergarten. This alternative subtransmission line would be located directly adjacent to a Jehovah's Witness church on East Vista Chino and Iglesia La Luz Del Mundo on Indian Canyon Drive.

Alternative 6

The Alternative 6 alignment begins at the Farrell Substation and heads east along East Vista Chino for about 2.7 miles to Date Palm Drive. At Date Palm Drive the alternative subtransmission line would head north to the intersection of Date Palm Drive and Varner Road where the line would tie into Garnet-Santa Rosa 115 kV subtransmission line. Approximately two miles of the Alternative 6 alignment cross directly adjacent to residents along East Vista Chino, while the remainder of the alignment is primarily in undeveloped land or open space. In addition to residential uses, the line would be located within half a mile of Rio Vista Elementary School and within 500 feet of the Bible Baptist Church on Landau Boulevard.

Alternative 7

The Alternative 7 alignment begins at the Farrell Substation and heads east along East Vista Chino for about 1.7 miles to Landau Boulevard. The alternative subtransmission line would continue south on Landau Boulevard for approximately 2.5 miles to 33rd Avenue. At 33rd Street, the line would turn east and continue along 33rd Street for approximately 0.9 mile to Date Palm Drive, where the line would turn north. On Date Palm Drive the alignment continues north for four miles to the intersection of Varner Road and Date Palm Drive where the line would tie into the existing Garnet-Santa Rosa 115 kV subtransmission line. Approximately seven miles of the Alternative 7 subtransmission line would cross directly adjacent to residents along East Vista Chino, Landau Boulevard, 33rd Avenue, and Date Palm Drive. In addition to residents, the line would be located directly adjacent to Landau Elementary School and Mount San Jacinto High School. The alternative subtransmission line would also be located within half a mile of Rio Vista Elementary School and Sunny Sands Elementary School. Churches located adjacent to the Alternative 7 alignment include the Palm Springs Church near 33rd Avenue and Cathedral

Canyon Drive and the Bridge Calvary Chapel at Date Palm Drive and Corral Road. Other churches in the vicinity include the Bible Baptist Church located approximately 500 feet north of the alignment and the Metropolitan Community Church of the Coachella Valley located approximately 600 feet west of the alignment on Candlewood Drive.

Mirage – Santa Rosa Study Area

Proposed Project

The proposed Mirage-Santa Rosa 115 kV alignment is approximately 1.5 miles long and adjacent to residential uses and undeveloped land. There are a number of residences located directly west of the proposed Mirage-Santa Rosa alignment along Bell Road between Calle Desierto and Calle Tosca. The distance between these residences and the SCE ROW is approximately 100 feet. Just north of I-10, the proposed alignment traverses the Tri Palm Golf Course.

Existing 115 kV lines in the Mirage-Santa Rosa study area would be reconfigured at the intersection of Portola Avenue and Gerald Ford Drive and at the intersection of Dinah Shore and Bob Hope Drive. The nearest receptors to the intersection of Portola Avenue and Gerald Ford Drive are along Portola Avenue, approximately 300 feet south of Gerald Ford Drive. The nearest receptors to the intersection of Dinah Shore Drive and Bob Hope Drive include a number of residences within 50 feet of the intersection to the southwest.

The proposed Devers-Coachella Valley 220 kV Loop-In alignment is 0.8 mile long within the western side of an existing SCE right-of-way. The nearest residential property line to the proposed 220 kV loop-in alignment are located approximately 160 feet to the west along Vista de Oro. However, the nearest residence is located approximately 250 feet west of the alignment.

Substations that would be upgraded in the Mirage-Santa Rosa study area include the Mirage, Tamarisk, Santa Rosa, Concho, and Indian Wells substations. The nearest sensitive receptors to each of these substations are identified in Table 4.11-3.

TABLE 4.11-3
SENSITIVE RECEPTORS NEAR SUBSTATIONS IN THE MIRAGE-SANTA ROSA STUDY AREA

Substation	Distance to Nearest Sensitive Receptor	Receptor Description
Mirage	450 feet	Residences located west of the substation
Tamarisk	32 feet	Residences located directly adjacent to the substation property line
Santa Rosa	128 feet	Residences located south of the substation along Don Quixote Drive
Concho	192 feet	Residences north of the substation along Country Club Drive
Indian Wells	112 feet	Residences directly west of the substation along Orange Blossom Lane and Wildflower Lane

Alternative 5

The Alternative 5 alignment is approximately 3.1 miles long, the majority of which passes directly adjacent to existing residential land uses along Ramon Road, Monterey Avenue, and Varner Road.

Regulatory Context

Federal, State, and local agencies regulate different aspects of environmental noise. Federal and State agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans identify general principles intended to guide and influence development plans; local noise ordinances establish standards and procedures for addressing specific noise sources and activities.

Riverside County

County Code

Chapter 9.52, *Noise Regulation*, of the Riverside County Code sets forth noise restrictions to protect the health, safety, and general welfare of residents of Riverside County. This ordinance restricts construction hours within one-quarter mile of an inhabited dwelling to between the hours of six a.m. and six p.m. during the months of June through September and to between the hours of 7 a.m. and 6 p.m. during the months of October through May (Riverside County, 2006).

General Plan

Table 4.11-4 presents restrictions on exterior noise from stationary sources for residential land use zones as identified in the Riverside County General Plan. These restrictions do not apply to construction noise.

TABLE 4.11-4
RIVERSIDE COUNTY LAND USE NOISE STANDARDS FOR STATIONARY SOURCES

Land Use	Time Period	Exterior Standards (L_{eq})[a]
Residential	10 p.m. to 7 a.m. 7 a.m. to 10 p.m.	45 65

[a] Standard is for a 10-minute average.

SOURCE: RCIP, 2003.

City of Palm Springs

Municipal Code

The maximum permissible exterior sound levels by receiving land use for the City of Palm Springs are presented in Table 4.11-5. Noise levels from construction and demolition equipment are exempt from the exterior and interior noise limits. However, the Municipal Code does restrict

TABLE 4.11-5
CITY OF PALM SPRINGS EXTERIOR NOISE LIMITS

Receiving Land Zone	Time Period	Noise Level (dBA)
Residential (Low Density)	7 a.m. – 6 p.m.	50
	6 p.m. – 10 p.m.	45
	10 p.m. – 7 a.m.	40
Residential (High Density)	7 a.m. – 6 p.m.	60
	6 p.m. – 10 p.m.	55
	10 p.m. – 7 a.m.	50
Commercial	7 a.m. – 6 p.m.	60
	6 p.m. – 10 p.m.	55
	10 p.m. – 7 a.m.	50
Industrial	7 a.m. – 6 p.m.	70
	6 p.m. – 10 p.m.	65
	10 p.m. – 7 a.m.	60

SOURCE: City of Palm Springs, 2008a.

the hours during which construction activities may occur to between 7 a.m. and 7 p.m. on weekdays and between 8 a.m. and 5 p.m. on Saturdays. Construction activities are not permitted on Sundays or Holidays (City of Palm Springs, 2008b).

General Plan

The City of Palm Springs General Plan requires that construction activities that impact adjacent residential units comply with the hours of operation and noise levels identified in the City's Municipal Code. Furthermore, General Plan Policy NS3.11 requires that construction activities incorporate feasible and practical techniques to minimize the noise impacts on adjacent uses, such as the use of mufflers and intake silencers that are no less effective than when originally equipped (City of Palm Springs, 2007).

City of Cathedral City

Municipal Code

The City of Cathedral City does not include noise level restrictions; however, it does limit hours in which construction work may be conducted based on the time of year. Permitted hours for construction work are presented in Table 4.11-6 (City of Cathedral City, 2008).

General Plan

Policy 4.A from the Noise Element of the City's General Plan limits construction and delivery truck traffic to East Palm Canyon Drive, I-10, Date Palm Drive, Dinah Shore Drive, Ramon Road, and Vista Chino unless location-specific services and deliveries are needed (City of Cathedral City, 2002).

TABLE 4.11-6
CITY OF CATHEDRAL CITY PERMITTED CONSTRUCTION WORK HOURS

Day	Permitted Hours	
	October 1st through April 30th	May 1st through September 30th
Monday – Friday	7:00 a.m. – 5:30 p.m.	6:00 a.m. – 7:00 p.m.
Saturday	8:00 a.m. – 5:00 p.m.	8:00 a.m. – 5:00 p.m.
Sunday and State Holidays	No permissible hours	No permissible hours

SOURCE: City of Cathedral City, 2008.

City of Rancho Mirage

Municipal Code

Table 4.11-7 presents exterior noise level limits for 30-minute time periods. Noise levels from construction and demolition equipment are exempt from the exterior and interior noise limits. However, the Municipal Code does restrict the hours during which construction activities may occur to between 7 a.m. and 7 p.m. on weekdays and Saturdays. Construction activities are not permitted on Sundays and Holidays (City of Rancho Mirage, 2008).

TABLE 4.11-7
CITY OF RANCHO MIRAGE EXTERIOR NOISE LIMITS

Receiving Land Zone	Time Period	Noise Level (dBA)
Residential (Low Density)	7 a.m. – 6 p.m. 6 p.m. – 10 p.m. 10 p.m. – 7 a.m.	55 50 45
Residential (Medium and High Density), Hospital, Open Space	7 a.m. – 6 p.m. 6 p.m. – 10 p.m. 10 p.m. – 7 a.m.	60 55 50
Commercial Office, Resort Commercial, Mixed Use, Institutional	7 a.m. – 6 p.m. 6 p.m. – 10 p.m. 10 p.m. – 7 a.m.	65 50 55
Commercial Neighborhood, General Commercial, Commercial Recreation, Light Industrial	7 a.m. – 6 p.m. 6 p.m. – 10 p.m. 10 p.m. – 7 a.m.	70 65 60

SOURCE: City of Rancho Mirage, 2008.

General Plan

The City of Rancho Mirage General Plan identifies the Municipal Code's exterior noise limits (see Table 4.11-7) as the adopted City noise standards (City of Rancho Mirage, 2005).

City of Palm Desert

Municipal Code

Table 4.11-8 presents exterior noise level limits averaged over 10-minute periods. Noise levels from construction and demolition equipment are exempt from the exterior and interior noise limits. However, the City of Palm Desert implements the same restrictions on construction hours as the City of Cathedral City (see Table 4.11-6) (City of Palm Desert, 2008).

TABLE 4.11-8
CITY OF PALM DESERT EXTERIOR NOISE LIMITS

Receiving Land Zone	Time Period	Noise Level (dBA)
Residential (All zones)	7 a.m. – 10 p.m. 10 p.m. – 7 a.m.	55 45
Commercial Zone	7 a.m. – 10 p.m. 10 p.m. – 7 a.m.	65 55
Manufacturing Industrial; Agricultural Zone	7 a.m. – 10 p.m. 10 p.m. – 7 a.m.	70 55

SOURCE: City of Palm Desert, 2008.

General Plan

Program 3.B of the City of Palm Desert's General Plan Noise Element indicates that the City shall restrict grading and construction activities that may impact residential neighborhoods and other sensitive land uses to specified days of the week and times of day, but does not specify the specific times or days that should be restricted (City of Palm Desert, 2004).

City of Indian Wells

Municipal Code

The maximum permissible exterior sound levels by receiving land use for the City of Indian Wells are presented in Table 4.11-9. Noise levels from construction and demolition equipment are exempt from the exterior noise limits. However, the Municipal Code does restrict the hours during which construction activities may occur to between 7 a.m. and 5 p.m. on weekdays and between 8 a.m. and 5 p.m. on Saturdays. Construction activities are not permitted on Sundays or holidays (City of Indian Wells, 2008).

TABLE 4.11-9
CITY OF INDIAN WELLS EXTERIOR NOISE LIMITS

Receiving Land Zone	Time Period	Noise Level (dBA)
Residential	7:01 a.m. – 10:00 p.m. 10:01 p.m. – 7:00 a.m.	55 50

SOURCE: City of Indian Wells, 2008.

General Plan

Policy IVB1.3 of the City of Indian Wells General Plan states that truck traffic shall be limited to specific routes and designated hours of travel, as defined by the City Planning and Engineering Departments. Furthermore, Policy IVB2.3 states that the City will enforce its noise ordinance, which specifies restrictions on construction noise and other short-term noise events (i.e. concerts, sporting events, etc.) and mitigation measures for development in noise-sensitive areas (City of Indian Wells, 1996).

4.11.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, a project impact would be considered significant if it would:

a) Expose people to or generate noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies;

b) Expose people to or generate excessive groundborne vibration or groundborne noise levels;

c) Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

d) Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or

e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels;

f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

For the purposes of this EIR, temporary impacts during construction are considered significant if they would substantially interfere with affected land uses. Substantial interference could result from a combination of factors including: the generation of noise levels substantially greater than existing ambient noise levels, construction efforts lasting long periods of time, or construction activities that would affect noise-sensitive uses during the nighttime.

The Proposed Project's long term operational impacts on the ambient noise environment would be considered substantial if it would expose sensitive receptors or other identified land uses to noise levels in excess of regulatory standards or codes. In addition to the absolute noise level that might occur when a new source is introduced into an area, it is also important to consider the existing ambient noise environment. If the ambient noise environment is quiet and the new noise source greatly increases the noise exposure, even though a criterion level might not be exceeded, an impact may occur.

A numerical threshold to identify the point at which a vibration impact occurs has not been identified by local jurisdictions in the applicable standards or municipal codes. In the absence of local regulatory significance thresholds for vibration from construction equipment, it is

appropriate to use California Department of Transportation (Caltrans) identified PPV thresholds for human perception and risk of architectural damage to buildings, which are 0.010 inches per second and 0.20 inches per second, respectively (Caltrans, 2002).

4.11.3 Applicant Proposed Measures

SCE has committed to implementing the following applicant proposed measures (APMs) to reduce construction noise.

> **APM NOISE-1.** Noise Ordinances. SCE would comply with all applicable noise ordinance construction schedules. In the event the construction must occur outside the allowable work hours, a variance would be obtained.
>
> **APM NOISE-2.** Noise Control Equipment Maintenance. Maintain all noise-control equipment in good working order, in accordance with manufacturers' specifications.
>
> **APM NOISE-3.** Handling of Noise Complaints. During construction, investigate, document, evaluate, and attempt to resolve legitimate project-related noise complaints. This would involve attempting to contact the source (person or persons) of the noise complaint within 24 hours; investigating to determine the project noise source(s) that led to the complaint; and taking all feasible measures to reduce the noise at the source, if the complaint is legitimate.

4.11.4 Impacts and Mitigation Measures

Equipment noise during project construction is the primary concern in evaluating short-term noise impacts. During operation, noise from corona discharge along high-voltage transmission lines during wet conditions and noise from operation of a new transformer at Mirage Substation would be the primary concern associated with long-term noise impacts.

Evaluation of potential noise impacts from construction and operation of the Proposed Project included reviewing relevant city and County noise standards and policies, characterizing the existing noise environment throughout the study area, and projecting noise from construction and operation of Proposed Project facilities. Impacts were assessed by comparing the published noise levels of construction equipment and operational activities to the ambient noise environment and significance criteria, based on applicable noise regulations.

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Construction

Implementation of APM NOISE-1 would ensure that construction activities associated with the Proposed Project would not violate an applicable noise ordinance. No Impact would occur (No Impact).

Operation

Impact 4.11-1: Corona noise associated with the Proposed Project could exceed applicable noise standards. *Less than significant* (Class III)

The term corona is used to describe the breakdown of air into charged particles caused by the electrical field at the surface of a conductor. Audible noise levels generated by corona discharge vary depending on weather conditions as well as the voltage and condition of the line. Wet weather conditions often increase corona discharge due to accumulation of raindrops, fog, frost, or condensation on the conductor surface, which causes surface irregularities thereby promoting corona discharge. Corona noise that would be associated with the proposed subtransmission line and 220 kV loop-in have been estimated to be approximately 30 dBA at the edge of the ROWs during dry conditions (SCE, 2008). During adverse weather conditions such as fog or rain, corona discharges could be five to 20 dBA higher than in dry conditions. Therefore, under worst case conditions, corona noise could be as high as 50 dBA at the edge of the transmission line ROW.

The proposed Farrell-Garnet subtransmission line would replace an existing single circuit 115 kV line with a double circuit line. With the exception of the 0.8-mile segment north of the UPRR, the proposed Farrell-Garnet subtransmission line would be constructed entirely within existing SCE ROW. Because newer conductors typically have less surface imperfections than aging conductors, the conductors associated with the new circuit would likely result in lower corona noise levels than the existing circuit. The nearest sensitive receptors along the proposed alignment are approximately 150 feet to the west of the southern portion. Assuming a maximum noise level of 50 dBA at the edge of the ROW during wet weather conditions, which are extremely rare in the study area, and accounting for how noise levels attenuate over soft surfaces, maximum corona noise at the nearby residences would be up to approximately 38 dBA. Corona noise levels that would be associated with the proposed Farrell-Garnet subtransmission line would not conflict with City of Palm Springs exterior noise limits, which are as low as 40 dBA for nighttime hours at low density residential land uses. Impacts would be less than significant.

The proposed Mirage-Santa Rosa 115 kV subtransmission line would be located entirely within existing SCE ROW that currently contains an existing 115 kV subtransmission line; therefore, noise associated with subtransmission line operations is part of the existing ambient noise environment along the alignment. Noise levels measured near the existing ROW along Bell Road were approximately 41 dBA. Since newer conductors typically have less surface imperfections than aging conductors, the conductors associated with the new circuit would likely result in lower corona noise levels than the existing circuit. The nearest sensitive receptors along the proposed Mirage-Santa Rosa alignment are approximately 100 feet to the west of the alignment along Bell Road. Assuming a maximum noise level of 50 dBA at the edge of the ROW during wet weather conditions, which are extremely rare in the study area, and accounting for how noise levels attenuate over soft surfaces, maximum corona noise at the nearby residences would be up to approximately 42 dBA. Corona noise levels that would be associated with the proposed Mirage-Santa Rosa subtransmission line would not conflict with Riverside County exterior noise limits, which are as low as 45 dBA for nighttime hours at residential land uses. Impacts would be less than significant.

The proposed Mirage-Santa Rosa subtransmission line would also energize a currently idle 115 kV subtransmission line along Portola Avenue between I-10 and Gerald Ford Drive in the City of Palm Desert. There is a subdivision to the west of Gerald Ford Drive that may be exposed to corona noise levels associated with operation of this currently idle line. However, typical noise levels from subtransmission line operations would not be expected to conflict with the City of Palm Desert municipal code, which identifies a nighttime exterior noise limit of 45 dBA for residential uses. Noise levels under worst case conditions may be as high as 43 dBA at a distance of 100 feet from the edge of the ROW; as stated previously, these conditions would be very uncommon due to the dry desert climate of the study area. Impacts would be less than significant.

The proposed 220 kV loop-in would be located entirely within existing SCE ROW that currently contains an existing 220 and 115 kV transmission and subtransmission lines; therefore, noise associated with transmission line operations is part of the existing ambient noise environment along the alignment. Noise levels measured near the existing ROW along Vista de Oro were approximately 44 dBA. As mentioned above, maximum corona noise that would be associated with the proposed 220 kV loop-in has been estimated to be approximately 50 dBA at the edge of the transmission line ROW during worst-case conditions (SCE, 2008). Given the way noise attenuates across soft surfaces and assuming that the nearest residences would be located at least 50 to 75 feet from the edge of the transmission line ROW, noise levels at the maximum exposed receptors under worst case conditions would be approximately 43 dBA. However, given the dry desert climate of the project area, worst case noise levels would be rare, further reducing the potential for the proposed 220 kV loop-in to conflict with applicable noise standards. Therefore, it can be assumed that corona noise levels that would occur under the proposed 220 kV loop-in would not conflict with exterior noise level standards set by Riverside County. Impacts would be less than significant.

Mitigation: None required.

Impact 4.11-2: Transformer noise at Mirage Substation would increase noise levels in the vicinity, potentially conflicting with applicable noise standards. ***Less than Significant with Mitigation*** **(Class II)**

The proposed improvements at Mirage Substation include the installation of one 280 MVA, 220/115 kV transformer bank. Operation of the new transformer at the Mirage Substation would increase noise levels in the vicinity of the substation. Transformer noise is caused, in part, by a phenomenon called magnetostriction, which causes the transformer to be magnetically excited and vibrate, producing a “humming” type sound. High voltage transformers also contain cooling fans that generate noise. SCE has not provided information in the its PEA or subsequent responses to CPUC data requests relative to the expected noise levels that would be associated with the proposed transformer. However, SCE has recently submitted a PEA under a separate application for the Eldorado-Ivanpah 220 kV Transmission Project that included a noise level range estimate of 39 dBA to 64 dBA for a 120 MVA 220/115 kV transformer at 400 feet (SCE,

2009). Therefore, for the purposes of this analysis, it is assumed that the proposed transformer at Mirage Substation would generate a maximum noise level of 64 dBA at 400 feet.

The nearest residences to the Mirage Substation are located approximately 450 feet to the west of the substation with property lines as close as approximately 100 feet to the west of the substation. Assuming a maximum transformer noise of approximately 64 dBA at 400 feet, maximum noise levels at 100 feet and 450 feet would be up to 76 dBA and 63 dBA, respectively. These maximum noise levels would result in an apparent violation of Riverside County exterior noise standards for stationary sources at residential land uses, which are 45 dBA and 65 dBA L_{eq} during nighttime and daytime hours, respectively. Therefore, noise levels associated with the proposed new transformer at the Mirage Substation would be potentially significant at nearby residential uses. However, implementation of Mitigation Measure 4.11-2 would ensure that SCE designs the proposed modifications to Mirage Substation such that transformer noise levels would not exceed Riverside County's noise standards for stationary sources.

> **Mitigation Measure 4.11-2: Mirage Substation.** SCE shall ensure that noise levels associated with the Mirage Substation do not exceed the Riverside County noise standards for stationary sources. Noise control techniques may include, but not be limited to: locating the new transformer with as much setback from the existing residential properties as possible, use of noise walls or equivalent sound attenuation devices, and the use of a transformer with special noise control specifications designed in a way to specifically achieve acceptable regulatory noise standards.
>
> Prior to the installation of the new transformer, SCE shall submit to the CPUC and the County of Riverside, for review and approval, a plan that describes the specific measures that will be taken in order to comply with the County's stationary noise standards. Once the proposed transformer is operational, SCE shall retain an acoustical engineer to perform noise measurements in the vicinity of the residences west of Mirage Substation to verify that transformer noise levels comply with the County standards. Documentation of compliance shall be submitted to the CPUC and Riverside County. In the event the transformer noise levels violate the standards, additional noise control techniques shall be initiated to correct the violation.

Significance after Mitigation: Less than Significant.

Maintenance

Maintenance activities would temporarily increase noise levels in the immediate vicinity of the Proposed Project. However, since new transmission and subtransmission lines would be constructed within existing ROW where inspections already occur on an annual basis, these activities would represent an existing noise source. Periodic maintenance activities associated with new lines would occur infrequently and would not result in any long-term notable noise level increases. Therefore, inspection and maintenance activities would not conflict with applicable noise ordinances (No Impact).

b) Expose people to or generate excessive groundborne vibration or groundborne noise levels.

Impact 4.11-3: Construction activities could expose people and/or structures to substantial vibration levels. *Less than significant* (Class III)

The use of blasting and/or pile drivers would not be included as part of the Proposed Project. The Proposed Project would involve temporary sources of groundborne vibration and groundborne noise during construction from operation of heavy equipment. During Proposed Project construction, operation of heavy equipment would generate localized groundborne vibration and groundborne noise that could be perceptible at residences or other sensitive uses in the immediate vicinity of the construction corridor. Implementation of APM NOISE-1 would restrict construction activities to hours permitted by local ordinances, and would therefore limit construction activities to less sensitive daytime hours. Furthermore, the duration of impact at any one location along the corridors would be very brief (estimated to be from one to three days). Therefore, the impact from construction-related groundborne vibration and groundborne noise would be less than significant.

Mitigation: None required.

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c) Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact 4.11-4: Corona noise levels could permanently increase ambient noise levels in the vicinity of the proposed alignments. *Less than significant* (Class III)

As discussed under a), the Proposed Project would result in hissing or crackling noise associated with corona discharge along the conductors during wet weather conditions. Corona noise that would be associated with the proposed subtransmission lines and the proposed 220 kV loop-in have been estimated to be approximately 30 dBA at the edge of the line ROWs during dry conditions (SCE, 2008). During adverse weather conditions such as fog or rain, corona discharge could be five to 20 dBA higher than in dry conditions. In addition to the proposed new subtransmission lines, an existing idle 115 kV subtransmission line located between I-10 and the intersection of Gerald Ford Drive and Portola Avenue would become energized as part of the Proposed Project. There is a residential development located immediately west of this line. This would introduce a new noise source into the area and would expose receptors to noise levels similar to what would occur along the new subtransmission lines described above. The maximum corona noise that would occur during adverse weather conditions under the Proposed Project would result in noise levels of up to 42 dBA at the nearest sensitive receptors. Noise levels generated by the proposed subtransmission and transmission lines could result in a temporary increase to ambient noise levels, but in most cases the noise created from rain would exceed the corona noise. Therefore, because operation of the proposed subtransmission and transmission lines would not result in a permanent increase in ambient noise levels, impacts would be less than significant.

Mitigation: None required.

Impact 4.11-5: Transformer noise at Mirage Substation could permanently increase ambient noise levels in the vicinity of the substation. ***Less than Significant with Mitigation*** **(Class II)**

As discussed under a), the proposed improvements at Mirage Substation include the installation of one 280 MVA, 220/115 kV transformer bank. Operation of the new transformer at the Mirage Substation would increase noise levels in the vicinity of the substation. Based on a recent application and PEA filed by SCE (SCE, 2009), it is assumed that the proposed transformer at Mirage Substation would generate a maximum noise level of 64 dBA at 400 feet. Maximum noise levels at the nearest residential property lines and nearest residences would be up to 76 dBA and 63 dBA, respectively. These maximum noise levels would result in a substantial permanent increase in ambient noise levels. Therefore, noise levels associated with the proposed new transformer at the Mirage Substation would be potential significant at nearby residential uses. However, Mitigation Measure 4.11-2 requires that SCE design the proposed modifications to Mirage Substation such that transformer noise levels would not exceed Riverside County's noise standards for stationary sources at residential uses, which is 45 dBA for nighttime hours. Implementation of this mitigation measure would ensure that permanent increases in ambient noise levels would not be substantial and that impacts would be mitigated to less than significant.

Mitigation Measure: Implement Mitigation Measure 4.11-2.

Significance after Mitigation: Less than Significant.

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d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact 4.11-6: Adverse noise levels would be generated during project construction. ***Less than Significant with Mitigation*** **(Class II)**

Construction of the Proposed Project would result in temporary increases in noise levels due to the development of the proposed subtransmission lines, 220 kV loop-in, 115 kV reconfigurations, modifications to ten substations, and installation of communication lines. Construction activities would require a variety of heavy equipment that would generate varying noise levels depending on the particular type of construction equipment. Typical noise levels at 50 feet from the source for some of the heavy pieces of construction equipment that would be required to construct the Proposed Project are listed in Table 4.11-10.

Onsite construction activities (i.e., construction activities within the proposed alignments, staging areas, and substations) would create both intermittent and continuous noises. Examples of intermittent construction noise sources would be from passing off-road equipment (e.g., dozers,

TABLE 4.11-10
TYPICAL MAXIMUM NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Level (dBA, L_{eq} at 50 feet)
Line Truck	88
Backhoe	80
Flatbed Truck	88
Drill Rig	98
Air Compressor	81
Dozer	85
Air Compressor	85
Mobile Crane	83
Grader	85
Front End Loader	85
Water Trucks	88
Cranes	83
Concrete Trucks	88

SOURCE: FTA, 2006.

backhoes, water trucks), loading operations, and from grading and drilling activities. Continuous noise sources would include sustained idling of equipment and/or the operation of pumps and generators at constant rates. Given the noise levels identified in Table 4.11-10, maximum onsite noise levels would vary from approximately 80 dBA at 50 feet, up to approximately 98 dBA at 50 feet during pole and tower foundation drilling activities. These levels would be equivalent to approximately 73 dBA and 91 dBA at 100 feet, respectively, and between 65 dBA and 83 dBA at 200 feet, respectively.

Construction would also cause off-site noise, primarily from commuting workers and from trucks needed to bring materials to the construction sites. In addition, a helicopter would be needed to help string the conductors on the new 220 kV towers. Equipment staging would occur at SCE's existing substations. From these points, some workers would drive or ride in construction vehicles to work areas along the subtransmission and transmission line alignments. Trucks would haul poles, conductor line, and other materials to the various construction sites and would also haul away demolished electrical equipment and excavated material and waste. The peak noise levels associated with passing trucks and commuting worker vehicles would be approximately 75 dBA at 50 feet.

As shown in Table 4.11-10, intermittent and continuous use of construction equipment would generate noise levels in excess of 85 dBA at 50 feet. However, the duration of noise impacts would be relatively brief, estimated to be approximately one to three days at any one location along the proposed construction alignments. Although construction activities at the substation sites would occur over periods lasting from 16 days (e.g., Garnet Substation) to eight months (Mirage

Substation), operation of most of the heavy construction equipment listed in Table 4.11-10 would occur mostly during ground disturbance activities, which would likely occur over periods that would be less than one week.

Given the relatively short duration of impacts at any one location, construction noise would not be considered significant at affected residences if the residents are given advance notice and if construction is limited to daytime hours. APM NOISE-1 would help reduced potential impacts to residents by requiring that SCE comply with local construction noise regulations. Also, APMs NOISE-2 and NOISE-3 would help reduce impacts by requiring appropriate noise-control devices on construction equipment and by addressing residential noise complaints. However, implementation of Mitigation Measures 4.11-6a and 4.11-6b would be required to ensure that the impact of construction noise would be less than significant.

Mitigation Measure 4.11-6a: To strengthen the intent of APM NOISE-2 and APM NOISE-3, the following noise reduction and suppression techniques shall be employed during project construction to minimize the impact of temporary construction-related noise on nearby sensitive receptors:

- Comply with manufacturers' muffler requirements.
- Notify residences in advance of the construction schedule and how many days they may be affected. Provide a phone number for a construction supervisor who would handle construction noise questions and complaints.
- Minimize idling of engines; turn off engines when not in use, where applicable.
- Shield compressors and other small stationary equipment with portable barriers when within 100 feet of residences.
- Route truck traffic away from noise-sensitive areas where feasible.

Mitigation Measure 4.11-6b: In the event that nighttime (i.e., between 7:00 p.m. and 7:00 a.m.) construction activity is determined to be necessary; a nighttime noise reduction plan shall be developed by SCE and submitted to the CPUC for review and approval. The noise reduction plan shall include a set of site-specific noise attenuation measures that apply state of the art noise reduction technology to ensure that nighttime construction noise levels and associated nuisance are reduced to the most extent feasible.

The attenuation measures may include, but not be limited to, the control strategies and methods for implementation that are listed below. If any of the following strategies are determined by SCE to not be feasible, an explanation as to why the specific strategy is not feasible shall be included in the nighttime noise reduction plan.

- Plan construction activities to minimize the amount of nighttime construction.
- Offer temporary relocation of residents within 200 feet of nighttime construction areas.

- Temporary noise barriers, such as shields and blankets, shall be installed immediately adjacent to all nighttime stationary noise sources (e.g., drilling rigs, generators, pumps, etc.).

- Install temporary noise walls that block the line of sight between nighttime activities and the closest residences.

Significance after Mitigation: Less than Significant.

Impact 4.11-7: Inspection and maintenance activities associated with project operations could cause periodic increases in ambient noise levels that could negatively affect nearby receptors. *Less than significant* (Class III)

As discussed above, maintenance activities associated with the Proposed Project would require use of a light duty truck and/or a helicopter to inspect new subtransmission and transmission lines and access/spur roads. However, since the new subtransmission and transmission lines would be constructed within existing ROW, with the exception of the 0.8-mile segment of new SCE ROW under the proposed Farrell-Garnet subtransmission line, such inspections already occur on an annual basis and thus represent existing noise sources. Periodic maintenance activities associated with new lines would occur infrequently and would not be expected to expose sensitive receptors to excessive noise levels. Impacts would be less than significant.

Mitigation: None required.

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e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels.

The Proposed Project would not involve the development of noise-sensitive land uses that would be exposed to excessive aircraft noise. Therefore, there would be no impacts associated with this criterion (No Impact).

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f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

The Proposed Project is not located within the vicinity of a private airstrip. Therefore, there would be no impacts associated with this criterion (No Impact).

4.11.5 Cumulative Impacts

Noise levels tend to lessen quickly with distance from a source; therefore, the geographic scope for cumulative impacts associated with noise would be limited to projects that are in the immediate vicinity of the Proposed Project.

Equipment used during construction activities would temporarily increase short-term noise levels in the study area. Construction of the Proposed Project, in conjunction with the other projects listed in Section 3.6, *Cumulative Projects*, would have the potential to contribute to a cumulative noise impact because construction of the cumulative projects may occur in the immediate area at the same time as the Proposed Project. For example, the Casa Verona residential subdivision project, located approximately 0.3 mile from the proposed Farrell-Garnet alignment, has been approved by the Palm Springs City Council. Therefore, construction of this project could potentially overlap with construction of the proposed Farrell-Garnet line. Also, the Ponderosa Homes II project, which includes the construction of 237 single family homes, is currently being constructed within 0.2 mile of the proposed 115 kV reconfiguration site at Portola Avenue and Gerald Ford Drive. If construction of this project continues into 2010, it may overlap with construction of the Proposed Project, thus exposing nearby sensitive receptors to cumulatively considerable noise increases.

Although construction of the Proposed Project may occur simultaneously with the various other cumulative projects, implementation of APMs NOISE-1 through NOISE-3 identified in Section 4.11.3 and Mitigation Measures 4.11-6a and 4.11-6b identified in Section 4.11.4 would ensure that the Proposed Project's construction-related noise impacts would be less than cumulatively considerable (i.e., because the Proposed Project would mitigate its contribution to the cumulative impact). As a result, cumulative noise impacts would be mitigated to less than significant (Class II).

Operations of the Proposed Project, in conjunction with the operations of other projects listed in Section 3.6, would have the potential to contribute to a long-term cumulative noise impact because operations of at least one of the cumulative projects would occur in the immediate vicinity of the Proposed Project. SCE plans to construct a new distribution substation in 2011 within the Mirage Substation property that would have one 28 MVA transformer, two 12 kV circuits, and capacitors. However, operations of the distribution voltage transformer and other equipment would result in minor noise levels that would be considerably less than the current ambient levels at Mirage Substation. In addition, impacts associated with the proposed modifications to Mirage Substation would be mitigated to less than significant with implementation of Mitigation Measure 4.11-2. Therefore, noise levels associated with the proposed new transformer would not be cumulatively considerable (Class II).

Corona discharge would not substantially increase ambient noise levels and would therefore not result in a cumulatively considerable contribution to noise impacts. Moreover, maintenance activities would include infrequent inspection of the lines and would also not result in a cumulatively considerable contribution to noise impacts. Therefore, operations and maintenance

of the Proposed Project would not be cumulatively considerable. Cumulative impacts would be mitigated to less than significant (Class II).

4.11.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Under the No Project Alternative, none of the facilities or infrastructure upgrades associated with the Proposed Project evaluated in this EIR would be constructed by SCE. However, SCE would be required to design a new project in order to satisfy the objectives of the Proposed Project. Depending on the location of this project, noise from construction could result in noise impacts at sensitive receptors within the study area. Construction noise would likely be similar to that associated with the Proposed Project, and would most likely be mitigable to less than significant through implementation such as APMs NOISE-1 through NOISE-3 and Mitigation Measures 4.11-6a and 4.11-6b.

If blasting or pile driving would be required during construction of a project under the No Project Alternative scenario, impacts from groundborne vibration would have the potential to result in damage to nearby structures or may impact nearby receptors. While it is unlikely that such activities would be required, impacts would be potentially significant.

If the No Project Alternative would include a new source of power generation or new high voltage transmission lines in areas near a large number of sensitive receptors, operational noise impacts may be higher than the Proposed Project. While it is unlikely that the No Project Alternative would introduce a noise source that would permanently increase ambient noise levels in the study area, impacts would be potentially significant and may require mitigation depending on the infrastructure included under the No Project Alternative.

Alternative 2

Alternative 2 would include the construction of approximately six miles of new single-circuit 115 kV subtransmission line, approximately three miles of which would be placed underground. The Alternative 2 subtransmission line would pass by existing residences located along Vista Chino and Sunrise Way. Therefore, there would be an increased chance of noise and vibration impacts from construction of the alternative subtransmission line. These impacts would be short-

term and intermittent in nature; implementation of APMs NOISE-1 through NOISE-3 and Mitigation Measures 4.11-6a and 4.11-6b would reduce these impacts to less than significant (Class II).

No blasting and/or pile drivers would be used during construction of the Alternative 2 subtransmission line. Therefore, as with the proposed Farrell-Garnet subtransmission line, the only sources of groundborne vibration and noise from construction of the Alternative 2 subtransmission line would result from the use of heavy duty construction equipment. While the Alternative 2 subtransmission line would pass by additional sensitive receptors not included in the analysis of the proposed Farrell-Garnet subtransmission line, it is anticipated that impacts would still be less than significant during construction because activities would be brief and intermittent and would only occur during daytime hours (Class III).

Placing the subtransmission line underground would eliminate potential noise impacts from corona discharge. Since the majority of the subtransmission line located in close proximity to residential receptors would be located underground, impacts from corona discharge would be expected to be slightly less than those that would be associated with the proposed Farrell-Garnet subtransmission line. Long-term noise would be associated with maintenance and inspection activities similar to those that would be associated with the proposed Farrell-Garnet subtransmission line. Therefore, long-term operational noise impacts associated with the Alternative 2 subtransmission line would be less than significant (Class III).

As with the proposed Farrell-Garnet subtransmission line, the Alternative 2 subtransmission line would not involve the development of noise-sensitive land uses that would be exposed to excessive aircraft noise. Therefore, there would be no impacts associated with aircraft noise (No Impact).

Alternative 3

Alternative 3 would include the construction of approximately 6.5 miles of new single-circuit 115 kV subtransmission line, approximately 3.6 miles of which would be placed underground. The Alternative 3 subtransmission line would pass by existing residences located along Vista Chino, Sunrise Way, San Rafael Road, and Indian Canyon Drive. Therefore, there would be an increased chance of noise and vibration impacts from construction of the Alternative 3 subtransmission line. These impacts would be short-term and intermittent in nature; therefore implementation of the APMs NOISE-1 through NOISE-3 and Mitigation Measures 4.11-6a and 4.11-6b would reduce these impacts to less than significant (Class II).

No blasting and/or pile drivers would be used during construction of the Alternative 3 subtransmission line. Therefore, as with the proposed Farrell-Garnet subtransmission line, the only sources of groundborne vibration and noise from construction of this alternative would result from the use of heavy duty construction equipment. While the Alternative 3 subtransmission line would pass by additional sensitive receptors not included in the analysis of the proposed Farrell-

Garnet subtransmission line, it is anticipated that impacts would still be less than significant during construction as activities would be brief and intermittent and would only occur during daytime hours (Class III).

Placing the subtransmission line underground would eliminate potential noise impacts from corona discharge. The majority of the subtransmission line located in close proximity to residential receptors would be located underground; however, at Indian Canyon Drive the line would transition to overhead. There are a number of receptors located along the first 0.5 mile of the overhead portion of the Alternative 3 subtransmission line that would have the potential to be exposed to noise associated with corona discharge. However, as with the proposed Farrell-Garnet subtransmission line, noise associated with corona would not be expected to substantially increase ambient noise levels or expose sensitive receptors to substantial noise levels. Maintenance and inspection activities would be similar to those that would be associated with the proposed Farrell-Garnet subtransmission line and would not be expected to result in substantial noise level increases. Therefore, long-term operational noise impacts associated with the Alternative 3 subtransmission line would be less than significant (Class III).

As with the proposed Farrell-Garnet subtransmission line, the Alternative 3 subtransmission line would not involve the development of noise-sensitive land uses that would be exposed to excessive aircraft noise. Therefore, there would be no impacts associated with aircraft noise (No Impact).

Alternative 5

Alternative 5 would include the installation of approximately three miles of underground subtransmission line and approximately 500 feet of overhead single-circuit subtransmission line. The Alternative 5 subtransmission line would pass by a greater number of existing residential units than the proposed Mirage-Santa Rosa subtransmission line, and would therefore have a greater chance of exposing sensitive receptors to increased noise levels and vibration during construction activities. Furthermore, by placing the subtransmission line underground, construction activities would be much more intense; therefore, impacts from noise and vibration would be higher. However, implementation of the APMs NOISE-1 through NOISE-3 and Mitigation Measure 4.11-6a and 4.11-6b would reduce impacts from construction of the Alternative 5 subtransmission line to less than significant (Class II).

As with construction noise, groundborne vibration associated with construction of the Alternative 5 subtransmission line would result in greater impacts to nearby residents than the proposed Mirage-Santa Rosa subtransmission line. However, these impacts are still expected to be localized and intermittent; therefore, impacts from groundborne vibration and noise during construction of the Alternative 5 subtransmission line would be less than significant (Class III).

The Alternative 5 subtransmission line would not include any additional sources of noises from long-term operations not included as part of the proposed Mirage-Santa Rosa subtransmission

line. Placing the subtransmission line underground would eliminate potential noise impacts from corona discharge. Long-term noise would be associated with maintenance and inspection activities similar to those that would be associated with the Proposed Project. Therefore, long-term operational noise impacts associated with the Alternative 5 subtransmission line would be less than significant (Class III).

As with the proposed Mirage-Santa Rosa subtransmission line, the Alternative 5 subtransmission line would not involve the development of noise-sensitive land uses that would be exposed to excessive aircraft noise. Therefore, there would be no impacts associated with aircraft noise (No Impact).

Alternative 6

Alternative 6 would include the construction of approximately 4.2 miles of new single-circuit 115 kV subtransmission line, approximately one mile of which would be placed underground. The Alternative 6 subtransmission line would pass by existing residences located along Vista Chino. Therefore, there would be an increased chance of noise and vibration impacts from construction of the Alternative 6 subtransmission line. These impacts would be short-term and intermittent in nature; therefore implementation of the APMs NOISE-1 through NOISE-3 and Mitigation Measures 4.11-6a and 4.11-6b would reduce these impacts to less than significant (Class II).

No blasting and/or pile drivers would be used during construction of the Alternative 6 subtransmission line. Therefore, as with the Proposed Project, the only sources of groundborne vibration and noise from construction of the Alternative 6 subtransmission line would result from the use of heavy duty construction equipment. While the Alternative 6 subtransmission line would pass by additional sensitive receptors not included in the analysis of the Proposed Project, it is anticipated that impacts would still be less than significant during construction as activities would be brief and intermittent and would only occur during daytime hours (Class III).

Placing the subtransmission line underground would eliminate potential noise impacts from corona discharge. One mile of the subtransmission line located in close proximity to residential receptors would be located underground; however, the portion along Vista Chino west of Landau Boulevard would be placed overhead. There are a number of receptors located along this stretch that would have the potential to be exposed to noise associated with corona discharge. However, as with the proposed Farrell-Garnet subtransmission line, noise associated with corona would not be expected to substantially increase ambient noise levels or expose sensitive receptors to substantial noise levels. Maintenance and inspection activities would be similar to those that would be associated with the proposed Farrell-Garnet subtransmission line and would not be expected to result in substantial noise level increases. Therefore, long-term operational noise impacts associated with the Alternative 6 subtransmission line would be less than significant (Class III).

As with the proposed Farrell-Garnet subtransmission line, the Alternative 6 subtransmission line would not involve the development of noise-sensitive land uses that would be exposed to excessive aircraft noise. Therefore, there would be no impacts associated with aircraft noise (No Impact).

Alternative 7

Alternative 7 would include the construction of approximately 9.1 miles of new single-circuit 115 kV subtransmission line. The Alternative 7 subtransmission line would pass by existing residents and sensitive receptors located along Vista Chino, Landau Boulevard, 33rd Avenue, and Date Palm Drive. Therefore, there would be an increased chance of noise and vibration impacts from construction of the Alternative 7 subtransmission line. These impacts would be short-term and intermittent in nature; implementation of the APMs NOISE-1 through NOISE-3 and Mitigation Measures 4.11-6a and 4.11-6b would reduce these impacts to less than significant (Class II).

No blasting and/or pile drivers would be used during construction of the Alternative 7 subtransmission line. Therefore, as with the proposed Farrell-Garnet subtransmission line, the only sources of groundborne vibration and noise from construction of the Alternative 7 subtransmission line would result from the use of heavy duty construction equipment. While the Alternative 7 subtransmission line would pass by additional sensitive receptors not included in the analysis of the proposed Farrell-Garnet subtransmission line, it is anticipated that impacts would still be less than significant during construction as activities would be brief and intermittent and would only occur during daytime hours (Class III).

A large portion of the Alternative 7 subtransmission line would be placed directly adjacent to residential receptors and would therefore have the potential to expose a substantial number of people to noise associated with corona discharge. However, as with the proposed Farrell-Garnet subtransmission line, noise associated with corona would not be expected to substantially increase ambient noise levels or expose sensitive receptors to substantial noise levels. Furthermore, the Alternative 7 subtransmission line would be constructed within existing SCE 115 kV subtransmission line ROW. Therefore, noise from subtransmission line operations would be considered part of the background noise levels. Maintenance and inspection activities would be similar to those that would be associated with the proposed Farrell-Garnet subtransmission line and would not be expected to result in substantial noise level increases. Therefore, long-term operational noise impacts associated with the Alternative 7 subtransmission line would be less than significant (Class III).

As with the proposed Farrell-Garnet subtransmission line, the Alternative 7 subtransmission line would not involve the development of noise-sensitive land uses that would be exposed to excessive aircraft noise. Therefore, there would be no impacts associated with aircraft noise (No Impact).

References – Noise

Caltrans (California Department of Transportation), 1998. *Technical Noise Supplement*, 1998.

Caltrans, 2002. *Transportation Related Earthborne Vibrations (Caltrans Experiences)*. Technical advisory, Vibration TAV-02-01-R9601. February 20, 2002.

City of Cathedral City, 2002. *City of Cathedral City General Plan, Chapter 5 – Environmental Hazards, Noise Element,* adopted July 31, 2002.

City of Cathedral City, 2008. *Cathedral City Municipal Code, Chapter 11.96, Noise Control.* Accessed online (http://www.qcode.us/codes/cathedralcity/) June 12, 2008.

City of Indian Wells, 1996. *Indian Wells General Plan, Chapter IV – Public Safety, Noise,* Adopted February 1, 1996.

City of Indian Wells, 2008. *Indian Wells Municipal Code, Chapter 9.06, Noise.* Accessed online (http://www.qcode.us/codes/indianwells/) June 12, 2008.

City of Palm Desert, 2004. *City of Palm Desert General Plan, Environmental Hazards Chapter, Noise Element,* adopted March 15, 2004.

City of Palm Desert, 2008. *Palm Desert Municipal Code, Chapter 9.24, Noise Control.* Accessed online (http://www.qcode.us/codes/palmdesert/) June 12, 2008.

City of Palm Springs, 2007. *Palm Springs 2007 General Plan. Chapter 8 – Noise Element,* adopted October 2007.

City of Palm Springs, 2008a. *Palm Springs Municipal Code, Chapter 11.74, Noise Ordinance.* Accessed online (http://www.qcode.us/codes/palmsprings/) June 12, 2008.

City of Palm Springs, 2008b. *Palm Springs Municipal Code, Chapter 8.04.220, Limitation of hours of construction.* Accessed online (http://www.qcode.us/codes/palmsprings/) June 12, 2008.

City of Rancho Mirage, 2005. *Rancho Mirage General Plan, Chapter 7 – Noise,* adopted November 2005.

City of Rancho Mirage, 2008. *Rancho Mirage Municipal Code, Chapters 8.45, Noise and 15.04.030 Section 116.1, Restricted hours; Construction Work.* Accessed online (http://www.amlegal.com/nxt/gateway.dll/California/ranchomirage/ranchomiragemunicipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:ranchomirage_ca) June 12, 2008.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment,* May 2006.

Riverside County Integrated Project (RCIP), 2003. *Riverside County General Plan – Chapter 7: Noise Element,* adopted October 7, 2003.

Riverside County, 2006. *County Code, Chapter 9.52, Noise Regulation*, accessed online (http://library2.municode.com/default-now/home.htm?infobase=16320&doc_action=whatsnew) November 11, 2009, adopted in 2006.

Southern California Edison (SCE), 2008. *Proponents Environmental Assessment: Devers-Mirage 115 kV Subtransmission System Split Project, Chapter 4.11: Noise,* January 2008.

SCE, 2009. *Proponents Environmental Assessment: Eldorado-Ivanpah 220 kV Transmission Project, Chapter 4.10: Noise,* May 2009.

4.12 Population and Housing

4.12.1 Setting

Components of the Proposed Project and alternatives would be constructed within Riverside County in the cities of Palm Springs, Palm Desert, Rancho Mirage, Cathedral City, and Indian Wells, and unincorporated areas of Riverside County, including the community of Thousand Palms, a census-designated place (CDP). The majority of the Proposed Project would be constructed in the City of Palm Springs and the community of Thousand Palms.

Population

Riverside County encompasses a large portion of Southern California, and over the past two decades the County has experienced extremely rapid growth. According to the Southern California Association of Governments (SCAG), the County's population increased by approximately 76 percent in the 1980's, from 663,172 in 1980 to 1,170,412 in 1990. The 2000 population estimate was 1,545,387 persons, a population increase of approximately 32 percent (SCAG, 2009).

The Proposed Project and alternative alignments and sites are located in western Coachella Valley, a subregion of Riverside County. The incorporated cities within western Coachella Valley followed similar trends for population growth as the County within the same time period. Table 4.12-1 shows the United States Census Bureau (U.S. Census Bureau) 2000 population estimates for the cities of Palm Springs, Palm Desert, Rancho Mirage, Cathedral City, and Indian Wells, the community of Thousand Palms, and Riverside County (U.S. Census Bureau, 2000). As demonstrated in Table 4.12-2, which shows historic and estimated future population growth from 2003 to 2025, the population in western Coachella Valley is expected to substantially increase over the next 20 years (SCAG, 2008).

Housing

According to the U.S. Census Bureau, as of 2000, Riverside County had approximately 699,474 total housing units, with approximately 11 percent of these dwelling units being vacant (U.S. Census Bureau, 2000). Table 4.12-3 shows housing data for the cities of Palm Springs, Palm Desert, Rancho Mirage, Cathedral City, and Indian Wells, the community of Thousand Palms, and Riverside County. As demonstrated in Table 4.12-4, the number of households in the cities and communities of western Coachella Valley and Riverside County is expected to substantially increase through 2025 (SCAG, 2008).

Each of the cities and communities (unincorporated areas) within western Coachella Valley has a large seasonal population that owns second homes or vacation homes. The seasonal population increases during the fall/winter/spring months and decreases during the summer period. A majority of the seasonal or second home residences are located in planned residential communities (City of Cathedral City, 2002).

TABLE 4.12-1
YEAR 2000 POPULATIONS AND DEMOGRAPHICS

	Palm Springs	Thousand Palms (CDP)	Palm Desert	Rancho Mirage	Cathedral City	Indian Wells	Riverside County
Total Population	42,807	5,120	41,155	13,249	42,647	3,816	1,545,387

SOURCE: U.S. Census Bureau, 2000.

TABLE 4.12-2
HISTORIC AND ESTIMATED FUTURE POPULATION GROWTH, 2003–2025

Area	2003	2005	% Change 2003-2005	2010	% Change 2005-2010	2015	% Change 2010-2015	2020	% Change 2015-2020	2025	% Change 2020-2025
Palm Springs	44,312	46,474	4.9	49,239	6.0	51,756	5.1	56,288	8.8	60,499	7.5
Palm Desert	44,549	49,843	11.9	54,435	9.2	59,588	9.5	64,860	8.9	67,206	3.6
Rancho Mirage	15,302	16,685	9.0	18,983	13.8	22,585	19.0	26,764	18.5	32,096	19.9
Cathedral City	48,139	51,303	6.6	55,745	8.7	60,293	8.2	65,222	8.2	69,431	6.5
Indian Wells	4,433	4,865	9.8	5,309	9.1	5,708	7.5	6,025	5.6	6,311	4.8
Riverside County	1,747,877	1,931,332	10.5	2,242,745	16.1	2,509,330	11.9	2,809,003	11.9	3,089,999	10.0

SOURCE: SCAG, 2008.

TABLE 4.12-3
YEAR 2000 HOUSING DATA

	Palm Springs	Thousand Palms (CDP)	Palm Desert	Rancho Mirage	Cathedral City	Indian Wells	Riverside County
Total Housing Units	30,823	2,557	28,021	11,816	17,893	3,843	699,474
Occupied Housing Units	20,516	1,912	19,184	6,813	14,027	1,982	623,711
Vacant Housing Units	10,307	645	8,837	5,003	3,866	1,861	75,763
Owner-Occupied Housing Units	12,480	1,573	12,827	5,654	9,151	1,756	434,872
Renter-Occupied Housing Units	8,030	339	6,357	1,159	4,876	222	188,839

SOURCE: U.S. Census Bureau, 2000.

TABLE 4.12-4
PROJECTED HOUSEHOLDS: 2003 TO 2025

Year	Palm Springs	Palm Desert	Rancho Mirage	Cathedral City	Indian Wells	Riverside County
2003	20,805	20,342	7,556	15,495	2,255	560,731
2005	21,606	22,724	8,148	16,339	2,449	612,341
2010	23,052	25,114	9,801	18,175	2,589	720,531
2015	24,242	27,749	11,641	19,807	2,731	811,486
2020	26,919	29,805	13,355	21,908	2,979	913,207
2025	29,417	31,217	16,371	23,425	3,193	1,008,909

SOURCE: SCAG, 2008.

Regulatory Context

CEQA Guidelines §15126.2 requires a discussion of the ways in which a proposed project could directly or indirectly foster economic development or population growth, and how that growth would, in turn, affect the surrounding environment. The following regulatory context is provided to set forth the planning framework that is anticipated under the General Plans for Riverside County and the cities of Palm Springs, Palm Desert, Rancho Mirage, Cathedral City, and Indian Wells. The study area is also covered by the Western Coachella Valley Area Plan, one of the 19 Area Plans in Riverside County. In terms of growth inducement, these agencies would be affected by the Proposed Project since the Proposed Project would improve reliability and transmission capacity in Riverside County.

Riverside County

As noted above, Riverside County experienced extremely rapid growth in the 1980s and steady growth through the 1990s. According to the Riverside County General Plan, the County's population could substantially increase over the next 20 years. The Land Use Element of the General Plan provides guidance to manage the growth with land use constraints and utilities infrastructure. The General Plan imposes constraints to focus growth into "centers or into existing developed areas, thus minimizing development pressures on rural, agricultural, and open space areas." The Land Use Element contains the following policy applicable to the Proposed Project and alternatives (Riverside County, 2003):

> *Policy LU 5.2:* Monitor the capacities of infrastructure and services in coordination with service providers, utilities, and outside agencies and jurisdictions to ensure that growth does not exceed acceptable levels of service.

The Housing Element of the Riverside County General Plan provides background information regarding housing and general policy guidance, but does not contain any housing policies applicable to the Proposed Project and alternatives (Riverside County, 2003).

Western Coachella Valley Area Plan

One of the primary goals of the Western Coachella Valley Area Plan is to contain and concentrate growth in several strategic unincorporated areas while preserving the rural and open space characteristics of the outlying areas (Riverside County, 2003).

City of Palm Springs

The City of Palm Springs General Plan provides background information regarding housing and general policy guidance, but does not contain any housing or growth control/management policies applicable to the Proposed Project and alternatives (City of Palm Springs, 2007).

City of Palm Desert

The City of Palm Desert General Plan provides background information regarding housing and general policy guidance, but does not contain any housing or growth control/management policies applicable to the Proposed Project and alternatives (City of Palm Desert, 2004).

City of Rancho Mirage

The City of Rancho Mirage General Plan provides background information regarding housing and general policy guidance, but does not contain any housing or growth control/management policies applicable to the Proposed Project and alternatives (City of Rancho Mirage, 2005).

City of Cathedral City

The City of Cathedral City General Plan does not have growth control/growth management ordinances or policies, but utilizes the General Plan goals and policies to manage growth within the City. The Housing Element contains the following policy applicable to the Proposed Project and alternatives (City of Cathedral City, 2002):

> *Policy 7.1:* Carefully consider increased capacity of streets, utilities and parks that may be needed because of increased population.

City of Indian Wells

The City of Indian Wells General Plan provides background information regarding housing and general policy guidance, but does not contain any housing or growth control/management policies applicable to the Proposed Project and alternatives (City of Indian Wells, 1996).

4.12.2 Significance Criteria

Impacts to population and housing would be considered potentially significant if the project would:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

4.12.3 Applicant Proposed Measures

No applicant proposed measures are proposed for population and housing.

4.12.4 Impacts and Mitigation Measures

a) Population growth inducement, either directly or indirectly.

Construction of the Proposed Project is needed to meet electric system demand and to ensure transmission system reliability in SCE's Electrical Needs Area; therefore, the Proposed Project is designed to increase reliability and accommodate existing and planned electrical load growth, rather than to induce growth.

Growth is anticipated in the project area, as described in Section 4.12.1, above. This growth is planned and regulated by applicable local planning policies and zoning ordinances and the Proposed Project's provision of electrical service is consistent with development anticipated by plans and zoning in the jurisdictions that the Proposed Project would serve. Additionally, the availability of electrical capacity by itself does not normally ensure or encourage growth within a particular area. Other factors such as economic conditions, land availability, population trends, availability of water supply or sewer services, and local planning policies have a more direct effect on growth.

Devers Substation is currently the only staffed facility that would be part of the Proposed Project and it would remain staffed after the completion of construction. However, the Proposed Project would not result in any additional long-term staffing increases at Devers Substation. All of the other facilities that would be associated with the Proposed Project would be unmanned and would receive occasional routine maintenance or emergency repairs. Therefore, the Proposed Project would not induce long-term population growth, either directly or indirectly, in the project area. There would be no impacts related to long-term population growth in the project area.

Construction activities in the project area are expected to last approximately 12 months, beginning in 2010 and concluding in mid-2011. The combined number of construction workers that would be required to construct the Proposed Project components would be approximately 300 crew members, including SCE and contracted construction personnel. However, it is assumed that the majority of the crews would move from one project component site to the next (e.g., from one substation site to the next site) site, resulting in the need for well under 300 total construction crew members at any one time. It is anticipated that construction workers would commute from within Riverside County or adjacent areas and would not need to relocate to the project area. Therefore, Proposed Project construction activities are not expected to result in any significant increase to the local population or housing market, and would not indirectly induce growth by

creating new opportunities for local industry or commerce. There would be no impacts related to short-term population growth in the project area (No Impact).

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b) Displacement of existing housing units, necessitating the construction of replacement housing elsewhere.

Construction of the Proposed Project would not displace any existing housing units. The Proposed Project subtransmission and transmission lines would be constructed within existing SCE right-of-way (ROW), with the exception of a 0.8-mile portion of the proposed Farrell-Garnet subtransmission line that would be constructed in new ROW in existing open space, and franchise locations generally paralleling local, County, and State roads as well as traversing vacant, open space. The Proposed Project would also include upgrades to the Devers, Mirage, Tamarisk, Eisenhower, Concho, Indian Wells, Santa Rosa, Thornhill, Garnet, and Farrell substations, as well as to the Edom Hill Communication Site. Construction activities proposed to occur at these sites would be entirely within the existing SCE property boundaries, with the exception of at Farrell Substation where an access driveway would be constructed to the adjacent street. Therefore, the Proposed Project would have no impact with regard to the displacement of existing housing (No Impact).

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c) Displacement of people, necessitating the construction of replacement housing elsewhere.

As noted above, the Proposed Project would not displace any existing housing units. It would therefore not displace residents. Also, as stated above, construction of the Proposed Project would traverse existing SCE ROW, property boundaries, and franchise locations and would not eliminate housing or any other structures that are currently used by people. Therefore, the Proposed Project would have no impact on the displacement of people (No Impact).

4.12.5 Cumulative Impacts

The geographic context for the cumulative impacts associated with population and housing issues are the cities and unincorporated communities of western Coachella Valley in Riverside County, which assumes full buildout of the Proposed Project, in combination with buildout of the projects listed in Section 3.6, *Cumulative Projects.* Riverside County, including western Coachella Valley, is expected to undergo substantial growth over the next two decades. By 2030, the population of Riverside County is expected to nearly double to 3.3 million persons residing in approximately one million residential dwelling units (SCAG, 2008). However, the Proposed Project is designed to increase reliability and accommodate existing and planned electrical load growth, rather than to induce growth. Therefore, the Proposed Project represents no incremental portion of a potential

growth impact, and the Proposed Project would not have cumulatively considerable impacts in regards to population and housing (No Impact).

4.12.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Under the No Project Alternative, none of the facilities or infrastructure upgrades associated with the Proposed Project evaluated in this EIR would be constructed by SCE. However, SCE would be required to design a new project in order to satisfy the objectives of the Proposed Project. It is unlikely that any such project would result in either direct or indirect population growth (No Impact).

Under the No Project Alternative, SCE would be forced to upgrade other existing facilities or add new subtransmission and transmission and generation capacity elsewhere to compensate for existing system limitations and anticipated future loads. This would result in construction and operational impacts if the properties were located in areas that necessitated removal of housing and displacement of housing units and persons, in which case the impact may be greater than for the Proposed Project.

Alternative 2

As with the Proposed Project, implementation of Alternative 2 would increase reliability and accommodate existing and planned electrical load growth, rather than induce growth. Construction and operation techniques associated with this alternative would be similar to that identified for the Proposed Project. Alternative 2 would include an underground segment and would be approximately 0.2 mile longer than the proposed Farrell-Garnet 115 kV line. Therefore, construction of this alternative may require a larger workforce or take longer to construct than the Proposed Project. However, the additional construction efforts would not induce population growth directly or indirectly; therefore, impacts related to population and housing would be the same as under the Proposed Project. No impacts would occur (No Impact).

Activities associated with construction of this alternative subtransmission line would occur within existing SCE ROW or local franchise locations and would not require the displacement of any existing housing units or people; no impacts would occur (No Impact).

Alternative 3

As with the Proposed Project, implementation of Alternative 3 would increase reliability and accommodate existing and planned electrical load growth, rather than induce growth. Alternative 3 would include an underground segment and would be approximately 0.7 mile longer than the proposed Farrell-Garnet 115 kV line. Therefore, construction of this alternative may require a larger workforce or take longer to construct than the Proposed Project. However, the additional construction efforts would not induce substantial population growth directly or indirectly; therefore, impacts related to population and housing would be the same as under the Proposed Project. Alternative 3 would not induce population growth either directly or indirectly; no impacts would occur (No Impact).

Activities associated with construction of this alternative subtransmission line would occur within existing SCE ROW or local franchise locations and would not require the displacement of any existing housing units or people. No impacts would occur (No Impact).

Alternative 5

As with the Proposed Project, implementation of Alternative 5 would increase reliability and accommodate existing and planned electrical load growth, rather than induce or accommodate growth. This alternative would result in the subtransmission line being constructed mostly underground. However, the construction workforce would be similar to the one described for the proposed Mirage-Santa Rosa line and no additional permanent staff would be required. Therefore, Alternative 5 would not induce population growth either directly or indirectly. No impacts would occur (No Impact).

Activities associated with construction of this alternative subtransmission line would occur within existing SCE ROW or local franchise locations and would not require the displacement of any existing housing units or people. No impacts would occur (No Impact).

Alternative 6

As with the Proposed Project, implementation of Alternative 6 would increase reliability and accommodate existing and planned electrical load growth, rather than induce or accommodate growth. Alternative 6 would include an underground segment, but would be approximately 1.6 miles shorter than the proposed Farrell-Garnet 115 kV line. Therefore, the construction workforce required to construct this alternative would likely be similar to that associated with the Proposed Project. Therefore, it can be assumed that Alternative 6 would not induce population growth either directly or indirectly; no impacts would occur (No Impact).

Activities associated with construction of this alternative subtransmission line would occur within existing SCE ROW or local franchise locations and would not require the displacement of any existing housing units or people. No impacts would occur (No Impact).

Alternative 7

As with the Proposed Project, implementation of Alternative 7 would increase reliability and accommodate existing and planned electrical load growth, rather than induce growth. Alternative 7 would be approximately 3.3 miles longer than the proposed Farrell-Garnet 115 kV line. Therefore, construction of this alternative may require a larger workforce or take longer to construct than the Proposed Project. However, the additional construction efforts would not induce substantial population growth directly or indirectly; therefore, impacts related to population and housing would be the same as under the Proposed Project. Alternative 7 would not induce population growth either directly or indirectly; no impacts would occur (No Impact).

Activities associated with construction of this alternative subtransmission line would occur within existing SCE ROW or local franchise locations and would not require the displacement of any existing housing units or people. No impacts would occur (No Impact).

References – Population and Housing

City of Cathedral City, 2002. *City of Cathedral City General Plan*, adopted July 31, 2002.

City of Indian Wells, 1996. *City of Indian Wells General Plan*, adopted February 1, 1996.

City of Palm Desert, 2004. *City of Palm Desert General Plan*, adopted March 2004.

City of Palm Springs, 2007. *City of Palm Springs 2007 General Plan*, adopted October 2007.

City of Rancho Mirage, 2005. *City of Rancho Mirage General Plan*, adopted November 2005.

Riverside County, 2003. *Riverside County General Plan,* adopted October 7, 2003. http://www.rctlma.org/generalplan/index.html. Accessed June 2008.

Southern California Association of Governments (SCAG), 2008. *Regional Transportation Plan, adopted 2008 Growth Forecast, by City*, website (http://www.scag.ca.gov/forecast/downloads/excel/RTP07_CityLevel.xls), accessed October 21, 2009.

SCAG, 2009. *A Century of Growth: Riverside County Population 1900-2000*, website (http://www.scag.ca.gov/census/pdf/River.pdf), accessed October 20, 2009.

United States Census Bureau (U.S. Census Bureau), 2000. American FactFinder 2000 Data Set. website (http://factfinder.census.gov) accessed June 2008.

4.13 Public Services

This section analyzes the impact of the Proposed Project and alternatives, on the provision of public services in the cities of Palm Springs, Rancho Mirage, Cathedral City, Palm Desert, and Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community. This section also identifies adverse physical impacts to the environment that could result from a need to provide new or physically altered public facilities, resulting from the Proposed Project and alternatives. This analysis reviews fire protection and emergency medical response, police services, and schools. Impacts to nearby roads that would result from implementation of the Proposed Project and/or alternatives are analyzed in Section 4.15, *Traffic and Transportation*.

4.13.1 Setting

Fire Protection and Emergency Medical Services

Riverside County Fire Department

Riverside County Fire Department (RCFD) is one of the largest regional fire service organizations in California. The RCFD operates 95 fire stations, in 17 battalions. Services provided by the RCFD include fire suppression, emergency medical, rescue, and fire prevention services. The RCFD is staffed with approximately 952 career and 1,100 volunteer personnel, and currently serves approximately two million residents in an area of 7,004 square miles. This service area consists of all unincorporated areas in Riverside County, 18 contract cities, and one Community Service District (CSD). Under contract with the California Department of Forestry and Fire Protection (CAL FIRE), the RCFD is the Operational Area Coordinator for the California Fire and Rescue Mutual Aid System for all fire service jurisdictions in the County of Riverside. As such, RCFD has also been given the authority to enter into several automatic aid agreements with other city jurisdictions, as well as with adjacent National Forests. In terms of the Proposed Project and alternatives, the cities of interest currently under contract with the RCFD include the City of Indian Wells, the City of Rancho Mirage, and the City of Palm Desert (RCFD, 2009).

The Department's service area is organized into six divisions, and the equipment used by each division has the versatility to respond to both urban and wildland emergency conditions. The RCFD's fire suppression inventory includes structural engines, rural engines, brush engines, telesquirts, trucks, paramedic units, a helicopter, a hazardous materials unit, incident command units, water tenders, fire crew vehicles, mobile communications centers, breathing support units, lighting units, power supply units, fire dozers, mobile training vans, and mobile emergency feeding units (RCFD, 2009).

City of Palm Springs Fire Department

The Palm Springs Fire Department (PSFD) provides fire, paramedic, and emergency services within the corporate boundaries of the City of Palm Springs and through mutual agreements in

the City's sphere of influence. In addition, the PSFD is authorized and directed to enforce the provisions of the Fire Code throughout the City, which includes duties such as plan reviews for new construction and additions, coordination with the City for disaster preparedness programs, weed abatement, inspections, and the Hazardous Materials Business Program. The PSFD currently monitors fire hazards in an area of approximately 96 square miles, and manages ongoing programs for investigation and alleviation of hazardous situations.

Firefighting resources in the Palm Springs area include five fire stations located throughout the City that help to ensure that the response time to any resident is less than five minutes, which is the standard used by PSFD for maximum first-response time (City of Palm Springs, 2007). There are a total of 18 on-duty firefighting personnel available during each 24-hour period, and in 2008, the PSFD's five stations responded to approximately 7,057 calls for service. According to the Insurance Services Office, which evaluates fire protection needs and services in communities across the country, the City of Palm Springs currently has a Class 3 Insurance Services Office rating (PSFD, 2009). The ratings are numerically categorized from one through ten. A rating of Class "1" is the highest rating a fire department can receive. Agencies that have automatic- and mutual-aid agreements with the PSFD include the RCFD, the U.S. Forest Service (USFS), CAL FIRE, the U.S. Bureau of Land Management (BLM), and the Cathedral City Fire Department (CCFD).

City of Cathedral City Fire Department

The City of Cathedral City's fire and emergency services are currently provided by the CCFD, located at 32-100 Desert Vista Road. CCFD staff consists of 33 paid firefighters including the Fire Chief, three administrative personnel, three part-time fire inspectors, 10 to 15 reserve firefighters, and four code enforcement officers. As of 2002, staffing levels represented a ratio of approximately 0.77 firefighters to every 1,000 residents. The International City/County Management Association (ICMA) recommends a target ratio of 1.89 firefighters per 1,000 residents. However, due to the fact that development in Cathedral City is predominantly low-density residential, with limited light manufacturing facilities, the City has a relatively low fire hazard risk and thus has not found it necessary to increase its staffing ratio (City of Cathedral City, 2002).

Three fire stations are located within the City limits, including: Station No. 411, located at 36-913 Date Palm Drive; Station 412, located at 32-100 Desert Vista Road; and Station No. 413, located at 27-610 Landau Boulevard (City of Cathedral City, 2002). These stations contain a wide range of firefighting equipment and vehicles, including three front-line engines, two reserve engines, one State Office of Emergency Services (OES) vehicle, one water tender, four ambulances, and one hazardous materials vehicle. In addition to fighting fires, the CCFD provides advanced life support and emergency ambulance services, maintains code enforcement responsibilities, reviews development plans, and performs construction inspections and fire investigations (CCFD, 2008a). The CCFD currently meets the standard of a maximum response time of five minutes, as recommended by the National Fire Insurance Organizations (NFIO) and the National Fire Protection Association (NFPA). In addition, the CCFD has been re-certified by the Insurance Services Office, as a Class 3 Department (City of Cathedral City, 2002).

City of Palm Desert

Services provided for the City of Palm Desert under contract with the RCFD include fire fighting, emergency medical services, fire inspections, maintenance of fire stations and vehicles, and review of commercial and housing development plans. Staffing levels represent a ratio of approximately 1.59 personnel per 1,000 residents. Given that much of the development in the City of Palm Desert is relatively new and meets the most recent fire codes, this ratio provides an effective level of department staffing and associated protection (City of Palm Desert, 2004). However, future increases in staffing would enhance emergency medical response and reinforce the City's current Class 3 Insurance Services Office rating.

The Palm Desert Fire Station is equipped with a wide range of fire fighting and emergency medical facilities, which include seven fully equipped paramedic response units with radios, two ladder trucks, five inspector units and one utility unit, eight defibrillators, jaws of life units, helmets, breathing devices, and other equipment (City of Palm Desert, 2004).

The City of Palm Desert currently contains two fire stations (i.e., Palm Desert Stations Nos. 33 and 71), which are considered well-situated to serve the study area within the City limits. Palm Desert Station No. 33 is located on Town Center Way less than one-half mile from the Rancho Mirage city limits. Station No. 33 is staffed with paid personnel and equipped with one 1,250 gallon per minute (gpm) telesquirt fire truck, one 102-foot ladder truck company, one paramedic unit with two paramedic fire fighters, and one mobile air chamber (breathing support) unit manned by volunteers. Palm Desert Station No. 71 is located at the intersection of Portola and Country Club Drives. Station No. 71 is staffed with paid personnel and equipped with one telesquirt ladder truck including a pumping unit and a medic unit with two medics. In addition to these two stations, the City of Palm Desert receives additional fire support, as necessary, from Station No. 55 in Indian Wells, and Stations No. 50 and No. 69 in Rancho Mirage (City of Palm Desert, 2004).

City of Rancho Mirage Fire Department

The RCFD maintains two fire stations with 24 sworn fighters to provide fire protection services to the City of Rancho Mirage and its sphere of influence. Rancho Mirage Station No. 50 is located on Highway 111 between Thunderbird Cove and Thunderbird Heights. Station No. 50 serves the southern portion of Rancho Mirage and is staffed with two firefighters and one paramedic on duty at all times. Rancho Mirage Station No. 69 is located on Gerald Ford Drive. Station No. 69 serves the northern portion of Rancho Mirage and is staffed with three firefighters and two paramedics on duty at all times (RMFD, 2009).

City of Indian Wells

Services provided for the City of Indian Wells under contract with RCFD include fire, paramedic and ambulance services. Currently, the City of Indian Wells has one fire station located next to City Hall at 44-900 Eldorado Drive. The Indian Wells Fire Station is fully staffed 24 hours a day with five personnel (three firemen on the fire engine and two paramedic firefighters on an advanced life support ambulance) (City of Indian Wells, 2009).

Police Protection

Riverside County Sheriff's Department

Riverside County Sheriff's Department (RCSD) provides several law enforcement services to areas under its jurisdiction, including general community policing as well as the operation and maintenance of several correctional facilities. The RCSD has 2,720 employees, including 1,330 sworn personnel to provide community policing services (RCIP, 2002). In addition, nine sheriff sub-stations are located throughout Riverside County to provide area-level community service. The RCSD also operates five adult correction or detention centers located throughout the County, as well as juvenile detention facilities. The RCSD is a "demand response" agency that maintains limited patrol services throughout the County of Riverside (RCIP, 2002).

The RCSD has established the following criteria for its staffing requirements in unincorporated areas of the County: one sworn officer per 1,000 population; one supervisor and one support staff employee per seven officers; one patrol vehicle per three sworn officers; and one school resource officer per school. However, upon full build-out of the General Plan it is anticipated that the RCSD shall meet and maintain a goal of 1.5 sworn officers per 1,000 population, as recommended by the ICMA (RCIP, 2002).

City of Palm Springs Police Department

The Palm Springs Police Department (PSPD) is responsible for all law enforcement services within the City of Palm Springs, which is spread out over approximately 96 square miles. All PSPD services are based out of the City's central police station, located at 200 South Civic Drive. According to U.S. Census Bureau figures, the City of Palm Springs has an estimated population of approximately 42,000 individuals, although the population increases significantly, to approximately 60,000 when part-time residents and tourists are included (City of Palm Springs, 2007). Currently, the PSPD's two divisions, Operations and Services, employ 94 sworn personnel including one Chief, two Captains, three Lieutenants, 14 sergeants, as well as 59 non-sworn personnel (PSPD, 2008a). The PSPD offers several areas of police protection including response service, criminal investigation, traffic enforcement, and preventative patrol for the City.

The desired response time for priority one calls (emergencies) and priority two calls (non-emergencies) in the City of Palm Springs is thirty seconds and five minutes, respectively (City of Palm Spring, 2007). However, the PSPD has mutual-aid agreements with other local law enforcement agencies in the event of a major incident that exceeds the PSPD's resources. There are currently six patrol beats (geographical patrol areas) serving the City of Palm Springs and its sphere of influence in the northern portion of Palm Springs.

City of Cathedral City Police Department

Police protection services in the City of Cathedral City are provided by the Cathedral City Police Department (CCPD), located at 68-700 Avenida Lalo Guerrero. The CCPD is staffed by 55 sworn officers, 29 non-sworn support and administrative personnel, and six reserve officers. Police vehicles include 35 marked and 15 unmarked cars. The City currently provides an officer to

population ratio of approximately 1.4 officers for every 1,000 residents, which is near the commonly recommended ratio of 1.5 officers for every 1,000 residents. Response times for the CCPD can vary significantly depending on the nature of the incident and the location of patrol cars at the time a 911 call is received. However, the average response time to an emergency call in Cathedral City is approximately 4.2 minutes (City of Cathedral City, 2002).

City of Palm Desert

Police protection services in the City of Palm Desert are provided through a contractual agreement with the RCSD, which operates out of the Palm Desert Station located at 73-520 Fred Waring Drive. The Palm Desert Station not only provides police protection to the City of Palm Desert, but also serves as the Sheriff's Department base of operations for the cities of Rancho Mirage and Indian Wells. Lands east of Washington Street, including Bermuda Dunes and other portions of the planning area, are served by staff based at the Indio Station of the RCSD. Police response times in the City of Palm Desert vary depending on the location of the caller and responding patrol cars. All calls are prioritized, and response times are contingent on the number of calls pending and their urgency. The average response time for the highest priority emergency calls is 4.6 minutes (City of Palm Desert, 2004).

The Palm Desert police force is comprised of a total of 70 sworn officers, including 45 deputies (ten of which are assigned to traffic enforcement), six dedicated deputies, four dedicated sergeants, six sergeants, three lieutenants, and six investigators.[1] With this level of staffing, the City of Palm Desert currently provides about 1.75 sworn officers for every 1,000 residents, which provides an effective level of police protection (City of Palm Desert, 2004).

City of Rancho Mirage Police Department

Police protection in the City of Rancho Mirage is provided on a service contract basis by the RCSD, which operates out of the Palm Desert Station. This contractual agreement allows the RCSD to provide over sixteen uniformed deputy sheriffs for patrol and traffic enforcement in the City. Patrol deputies are the City's most visible element, are the first to respond in emergency situations, and have training in basic life saving measures. The Rancho Mirage Police Department (RMPD) provides 24 hour a day police protection service to approximately 17,180 residents, and patrols approximately 25 square miles of City streets (RMPD, 2009). Currently, the average emergency response time in the City of Rancho Mirage to any location is four minutes or less (City of Rancho Mirage, 1997).

City of Indian Wells

In addition to fire, paramedic, and ambulance services, the City of Indian Wells is also under contract with the County of Riverside for law enforcement services. Through contractual agreement with the RCSD, the City maintains one deputy sheriff and one community service officer 24 hours a day, two deputy sheriffs assigned to traffic control, two burglary suppression

[1] The term "dedicated" refers to those deputies holding specialized positions, including a Gang Deputy, Community Oriented Policing Deputy, two School Resource Officer Deputies, a Deputy assigned to the Coachella Valley Narcotics Task Force, and a Deputy assigned to the Career Criminal Apprehension Team.

specialists, and one lieutenant acting as the residing police chief. Currently, the City has an officer to population ratio of approximately 1.45 officers to every 1,000 City residents (City of Indian Wells, 2008).

Schools

The study area is within the Palm Springs Unified School District (PSUSD). PSUSD includes fifteen elementary schools, four middle schools, three comprehensive high schools, one continuation high school, one alternative education program, eight headstart/State preschools, three full-day head start programs, four childcare programs, and one adult education program (PSUSD, 2008). The District also provides a wide array of programs, including special education, instruction for English Learners, Technical Preparation (Tech Prep), athletics, advanced placement (AP), School-Based Coordinated Program (SBCP), Title I, school-to work transition, Gifted and Talented Education (GATE), and a pilot 24/7 laptop program. PSUSD serves more than 22,000 students and employs more than 2,020 administrators, certificated staff, and classified staff (PSUSD, 2008). The District serves the students and families of Cathedral City, Desert Hot Springs, Palm Desert, Palm Springs, Rancho Mirage, and Thousand Palms.

The nearest schools to the proposed Farrell-Garnet 115 kV subtransmission line alignment are Palm Springs Independent Studies (elementary school) and Palm Springs Independent Studies (high school), both of which are located approximately half a mile south of Farrell Substation. Other schools located within the Farrell-Garnet study area include Vista Del Monte Elementary School, Katherine Finchy Elementary School, Cahuilla Elementary School, and Raymond Cree Middle School. The nearest schools to the proposed Mirage-Santa Rosa subtransmission line and the 220 kV loop-in alignments are Della S. Lindley Elementary School, Palm Desert Middle School, and Palm Dessert High School. However, Della S. Lindley elementary school is the only facility located within a mile of one of the proposed alignments (i.e., the proposed Mirage-Santa Rosa alignment).

The Xavier College Preparatory High School has acquired multiple parcels of land north of Interstate 10 (I-10) and west of the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. Xavier College Prep is currently constructing a campus on 75 acres, approximately a half mile west of the proposed subtransmission line alignment. PSUSD has acquired 20 acres of land near the proposed subtransmission line reconfiguration at the corner of Portola Avenue and Gerald Ford Drive; however, there are currently no plans to develop a school at that location.

Other Public Facilities

The closest library to the proposed Farrell-Garnet 115 kV subtransmission line alignment is the Welwood Murray Memorial Library, located at 100 S. Palm Canyon Drive in the City of Palm Springs, approximately one half mile from the project site. Another library in the Farrell-Garnet study area is the Palm Springs Public Library, located at 300 S. Sunrise Way in the City of Palm Springs. Libraries in the Mirage-Santa Rosa study area include the Thousand Palms Public Library, located at 31189 Robert Road; the Rancho Mirage Public Library, located at 71100 Highway 111; and the Palm Desert Branch Library, located at 73300 Fred Waring Drive.

Regulatory Setting

Riverside County

Riverside County General Plan provides background information regarding public service policy guidance (RCIP, 2003). The Safety Element of the Riverside County General Plan includes the following policies that may be applicable to the Proposed Project and alternatives:

> *Policy 5.1*: Ensure that development does not exceed the ability to adequately provide supporting infrastructure and services, such as libraries, recreational facilities, transportation systems, and fire/police/medical services.
>
> *Policy 5.2*: Monitor the capacities of infrastructure and services in coordination with service providers, utilities, and outside agencies and jurisdictions to ensure that growth does not exceed acceptable levels of service.
>
> *Policy 5.10*: Continue to utilize the Riverside County Fire Protection Master Plan as the base document to implement the goals and objectives of the Safety Element.
>
> *Policy 9.1*: Require that new development contribute their fair share to fund infrastructure and public facilities such as police and fire facilities.

City of Palm Springs

The City of Palm Springs General Plan provides background information regarding public service policy guidance (City of Palm Springs, 2007). The Safety Element of the Palm Springs General Plan includes the following policy, goal, and actions that may be applicable to the Proposed Project and alternatives:

> *Goal SA7*: Provide quality police and fire protection to residents, businesses, and visitors of the City.
>
> *Policy SA7.1*: Maintain adequate resources to enable the Police Department to meet response-time standards, keep pace with growth, and provide high levels of service.
>
> *Actions SA7.1*: Maintain a ratio of at least one sworn police officer per 1,000 residents in the City.
>
> *Actions SA7.2*: The City shall maintain ISO Class 3 status and strive to improve its rating.

City of Palm Desert

The City of Palm Desert General Plan provides background information regarding public service policy guidance (City of Palm Desert, 2004). The Police and Fire Protection Element of the Palm Desert General Plan includes the following policies and goal that may be applicable to the Proposed Project and alternatives:

> *Goal 1*: The provision of efficient, high quality police and fire protection for all types of development, and socio-economic segments of the community.

Policy 1: The City shall strictly enforce fire standards and regulations in the course of reviewing development and building plans and conducting building inspections.

Policy 3: The City shall strive to maintain a police staffing ratio of at least 1.5 sworn officers per 1,000 residents.

Police 4: The City shall strive to maintain Fire Department staffing and other appropriate measures of community fire protection to maintain an ISO Class 3 insurance rating.

Policy 5: Emergency, police, fire and paramedic vehicles shall be provided unencumbered access to all new development to the satisfaction of the City Fire Marshal, with a planning objective of maintaining a five minute response time over 95 percent of all priority one emergencies.

City of Cathedral City

The City of Cathedral City General Plan provides background information regarding public service policy guidance (City of Cathedral City, 2002). The Police and Fire Protection Element of the Cathedral City General Plan includes the following goals and policies that may be applicable to the Proposed Project and alternatives:

Goal 1: Protection of the community from the threat of loss of life and property from fire and environmental hazards.

Goal 2: The highest level of security and police protection to preserve and protect the health, welfare and property of residents, visitors and businesses in the City.

Policy 1: All new development proposals shall be thoroughly reviewed for potential impacts and the ability to effectively provide public safety and the provision of fire and police protection.

Policy 2: Emergency vehicles shall be provided with adequate access to all new development.

Policy 5: The City shall strive to achieve and maintain a minimum staffing ratio of 1.5 firefighters per 1,000 residents.

Policy 8: Essential community facilities shall not be located in areas of high fire hazard risk.

Policy 12: The City shall strive to maintain a minimum ratio of 1.5 sworn police officers per 1,000 residents.

City of Rancho Mirage

The City of Rancho Mirage General Plan provides background information regarding public service policy guidance (City of Rancho Mirage, 1997). The Public Services and Utilities Element of the Rancho Mirage General Plan includes the following goal and policies that may be applicable to the Proposed Project and alternatives:

Goal 1: A high level of police and fire protection and paramedic service.

Policy 1: All new and improved developments shall be reviewed for their impact on safety and the provision of police and fire protection services.

Policy 2: Enforce fire standards and regulations in the course of reviewing building plans and conducting building inspections.

Policy 5: Emergency police, fire and paramedic vehicle access shall be provided with all new development to the satisfaction of the City.

City of Indian Wells

The City of Indian Wells General Plan provides background information regarding public services, but does not contain any public service control/management policies applicable to the Proposed Project and/or the alternatives (City of Indian Wells, 1996).

4.13.2 Significance Criteria

According to Appendix G of the CEQA Guidelines, an impact resulting from the Proposed Project would be considered significant if it would result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

a) Fire protection;
b) Police protection;
c) Schools;
d) Other public facilities.

4.13.3 Applicant Proposed Measures

No applicant proposed measures have been identified by SCE for public services.

4.13.4 Impacts and Mitigation Measures

This section presents an analysis of the potential public service impacts associated with the construction, operation, and maintenance of the Proposed Project.

a) Fire Protection

Fire protection services within the vicinity of the Proposed Project components would be provided by the PSFD, CCFD, RMFD, as well as by the RCFD, through automatic aid agreements with the cities of Palm Desert, Rancho Mirage, and Indian Wells. The Proposed Project would not introduce any new uses to the project area that would generate long-term changes to fire protection services. Once constructed, the subtransmission and transmission lines would require SCE to conduct routine maintenance, inspection, and vegetation management activities. Since the majority of the Proposed Project would be constructed within existing SCE right-of-way (ROW), increases in maintenance requirements would be negligible.

Increases in long-term demand for fire protection services are typically associated with substantial increases in population. Construction activities in the project area are expected to begin in the second quarter of 2010 and would conclude by mid-2011. The combined number of construction workers that would be required to construct the Proposed Project components would be approximately 300 crew members, including SCE and contracted construction personnel. However, it is assumed that the majority of the crews would move from one project component site to the next (e.g., from one substation site to the next site) site, resulting in the need for well under 300 total construction crew members at any one time. The Proposed Project construction activities would be temporary, and therefore would not result in any direct growth-inducing impacts, or result in any significant increase of local population. Thus, construction of the Proposed Project would not pose long-term impacts related to fire protection services in the vicinity of the Proposed Project (No Impact).

Construction of the Proposed Project could affect the temporary demand for fire protection and emergency response services, as discussed below.

Impact 4.13-1: Project construction activities could temporarily increase the demand for fire protection and emergency medical services. ***Less than significant with mitigation*** **(Class II)**

Construction activities associated with the Proposed Project would not unduly burden local fire services, although emergency response services may be needed in the unlikely event of worker injury or other accidental conditions. Additionally, because a majority of the proposed alignments traverse largely undeveloped areas, emergency situations could result that would require fire suppression services and emergency response. However, construction activities would be temporary, commencing in 2010 and concluding by mid-2011.

Each fire department that could potentially serve the project site has indicated that construction of the Proposed Project would not significantly affect fire protection response times, create higher demand for fire protection services, or require new short-term provisions of additional local fire facilities or equipment (RCFD, 2008; CCFD, 2008b; PSFD, 2008; and PDFM, 2008). Implementation of APM HAZ-2 and Mitigation Measure 4.7-7, which require SCE to prepare a Fire Management Plan, would reduce impacts on fire protection service providers (see Section 4.7, *Hazards and Hazardous Materials*) to less than significant and implementation of Mitigation Measure 4.13-1 (see below) would reduce impacts on emergency medical service providers to less than significant.

> **Mitigation Measure 4.13-1:** SCE shall prepare and implement a Health and Safety Plan to ensure the health and safety of construction workers and the public during construction. The plan shall list procedures and specific emergency response and evacuation measures that would be required to be followed during emergency situations. The plan shall be submitted to the CPUC for approval prior to commencement of construction activities and shall be distributed to all construction crew members prior to construction and operation of the project.

Significance after Mitigation: Less than Significant.

Impact 4.13-2: Project construction activities in proximity to public roadways could potentially affect vehicle access and fire department response times. ***Less than significant with mitigation*** **(Class II)**

Project construction activities associated with the Proposed Project would generally parallel local, County, and State roads. Several roadways, including Gene Autry Trail and I-10, would be crossed by the proposed subtransmission lines and would be required to be temporarily closed during subtransmission line stringing activities. (Refer to Section 4.15, *Traffic and Transportation*, for further discussion of impacts related to road closures and potential impacts to public roadways). However, implementation of Mitigation Measure 4.15-1 (see Section 4.15) and Mitigation Measure 4.13-2 (below) would ensure all impacts related to temporary road closures would be reduced to less than significant.

> **Mitigation Measure 4.13-2**: SCE shall coordinate with the emergency service providers of the applicable cities and Riverside County prior to construction to ensure that construction activities and associated lane closures would not significantly affect emergency response vehicles. SCE shall submit verification of its consultation with emergency service providers to the CPUC prior to the commencement of construction.

Significance after Mitigation: Less than Significant.

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b) Police Protection

Police protection services in the vicinity of the Proposed Project alignments and sites are provided by the PSPD, CCPD, the RMPD, as well as by the RCSD, through contractual aid agreements with the cities of Rancho Mirage, Palm Desert, and Indian Wells. The Proposed Project would not introduce any new uses to the project area that would generate long-term changes to police protection services. Once constructed, the Proposed Project components would require routine maintenance trips, inspection, and vegetation management activities. Operational staffing levels would not increase above existing levels that are required to maintain the existing subtransmission and transmission systems. Furthermore, increases in the demand for police protection services are typically associated with substantial increases in population. The Proposed Project would not result in a population increase that would increase the long-term demand for police protection services (please refer to Section 4.12, *Population and Housing* for more information related to potential population increase). Therefore, operation of the Proposed Project would not affect any of the police departments in the vicinity of the Proposed Project alignment and sites (No Impact).

Impact 4.13-3: Project construction activities could temporarily increase the demand for police protection services. *Less than significant* (Class III)

Proposed Project construction may require police services due to possible theft of construction equipment and/or vandalism that might occur during the construction period. At the completion of the work day, construction crews would lock up and secure each worksite to prevent theft or vandalism of work equipment and supplies. Additionally, SCE would utilize private patrols to monitor all components of the Proposed Project during construction activities to further ensure project site security.

Proposed Project construction may, at times, require temporary partial closure of adjacent roadways, requiring traffic control measures, or safety measures that would typically be coordinated with local police. Several private and public roadways, including but not limited to Genera Autry Trail, I-10, and Ramon Road, that would be crossed by the Proposed Project could need to be temporarily closed during line stringing activities (refer to Section 4.15, *Traffic and Transportation*, for further discussion on impacts related to road closures and potential impacts to public roadways). However, as indicated by each police department with jurisdiction in the study area, construction of the Proposed Project would not significantly affect police protection response times or create higher demand for this public service (PSPD, 2008b; CCPD, 2008; and PDPS, 2008).

In addition, it should be noted that the Proposed Project could be considered beneficial to the area in terms of police protection services. This is due to the fact that during the summer months, when the weather is at its hottest, the region often experiences rolling black outs or "brown outs." During recent brown outs in the area, numerous private home security alarm systems have been disabled due to the interruption in power. Once the electricity was reconnected, many of the alarm systems automatically triggered an alarm call to the nearest police station as a result of the power interruption. Sergeant Flores of the RCSD has indicated that the Palm Desert Police Station spends much if its time during the summer months answering unnecessary alarm calls that are directly related to the unreliability of the areas electrical grid. As such, Sergeant Flores indicated that the Proposed Project could be beneficial to the RCSD, if it could help alleviate inconsistencies in the power supply (PDPD, 2008).

Therefore, at no time would construction activities associated with the Proposed Project result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered police facilities, or affect acceptable service ratios, response times, or other performance objectives for police protection. The Proposed Project would have a less than significant impact on police protection services.

Mitigation: None required.

c) Schools

The Proposed Project would not result in an increase of local population or housing, which is typically associated with increased demand for public school services (refer to Section 4.12, *Population and Housing*, for further information on the Proposed Project potential to increase the local population). Construction and operations of the Proposed Project would not require the provision of new or additional school facilities, nor would it affect the enrollment or capacity of the schools within the surrounding area. No impacts would occur to public school services (No Impact).

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d) Other Public Facilities

The Proposed Project would not result in substantial adverse impacts to other public facilities, such as public libraries, due to the fact that the Proposed Project would not result in a significant increase of local population or housing, which is typically associated with increased demand for public facilities (refer to Section 4.12, *Population and Housing*, for further information in population increases resulting from the Proposed Project). No other public facilities would be adversely impacted by the construction or operation of the Proposed Project (No Impact).

4.13.5 Cumulative Impacts

The geographic scope of cumulative impacts related to public services is the service area of affected public services, generally limited to the cities of Palm Springs, Rancho Mirage, Cathedral City, Palm Desert, and Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community. As discussed above, the Proposed Project would not result in significant effects on the ability of service providers to provide adequate police services, fire protection and emergency medical services, and public school facilities to the project area. The past, present, and reasonably foreseeable future projects described in Section 3.6, *Cumulative Projects*, include several large development projects planned in the vicinity of the Proposed Project alignment and sites that may impact public services. These projects include numerous new housing subdivisions. It is likely that this cumulative development would require expansion of existing, or development of new, public service infrastructure to support the planned population growth. If this growth were to occur prior to improvements in public service infrastructure, then there could be significant adverse effects on fire protection and emergency medical services, police protection, schools, and other public facilities. However, the Proposed Project's impacts to public services would generally be limited to the construction period from 2010 to mid-2011, after which the Proposed Project's demand on public services would be inconsequential. Additionally, Mitigation Measures 4.13-1 and 4.13-2 would ensure that the Proposed Project's temporary public service impacts during construction would be less than significant. Therefore, the effect of the Proposed Project on public services, in combination with other past, present, and reasonably foreseeable projects, would not be cumulatively considerable. The Proposed Project's contribution to cumulative impacts would be mitigated to less than significant (Class II).

4.13.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Construction of new infrastructure under the No Project Alternative would likely result in similar impacts to those which would occur from construction of the Proposed Project. Depending on the location of new facilities, construction activities under the No Project Alternative scenario could result in road closures and other hazards that would have the potential to impact emergency service providers. However, it is likely that implementation of measures similar to Mitigation Measures 4.7-1, 4.13-1, 4.13-2, and 4.15-1 would reduce the potential for such impacts to a less than significant level (Class II).

Operations under the No Project Alternative scenario would likely result in similar impacts as those that would occur under the operation of the Proposed Project as both would be designed to accommodate existing and planned electrical growth, rather than induce growth. If substantial new facilities were generated under the No Project Alternative, inspection and maintenance requirements could result in indirect population growth. However, if such increases were to occur it is unlikely that they would be substantial enough to result in impacts to public services (No Impact).

Alternative 2

As with the proposed Farrell-Garnet subtransmission line, implementation of the Alternative 2 subtransmission line would increase reliability and accommodate existing and planned electrical load growth, rather than induce growth. Operation and maintenance activities associated with Alternative 2 would be generally the same as under the proposed Farrell-Garnet subtransmission line. Compared to the proposed Farrell-Garnet subtransmission line, the Alternative 2 subtransmission line would require construction of a three mile underground segment along Vista Chino and Sunrise Way, which would result in additional lane closures and would require additional construction personnel. However, the additional crew necessary for construction of Alternative 2 would not induce population growth directly or indirectly; therefore, the demand for fire protection and emergency medical services, police protection, schools, and other public facilities would not be substantially greater than under the proposed Farrell-Garnet subtransmission line. Furthermore, as with the proposed Farrell-Garnet subtransmission line, implementation of Mitigation Measures 4.7-1, 4.13-1, 4.13-2, and 4.15-1 would be applicable to Alternative 2 and would ensure that potential impacts to public services would be reduced to less than significant (Class II).

Alternative 3

As with the proposed Farrell-Garnet subtransmission line, implementation of the Alternative 3 subtransmission line would increase reliability and accommodate existing and planned electrical load growth, rather than induce growth. Operation and maintenance activities associated with Alternative 3 would be generally the same as under the proposed Farrell-Garnet subtransmission line. Compared to the proposed Farrell-Garnet subtransmission line, Alternative 3 would require construction of a 3.6-mile underground segment along Vista Chino, Sunrise Way, and San Rafael Road, which would result in additional lane closures and would require additional construction personnel. However, the additional crew necessary for construction of Alternative 3 would not induce population growth directly or indirectly; therefore, the demand for fire protection and emergency medical services, police protection, schools, and other public facilities would not be substantially different than under the proposed Farrell-Garnet subtransmission line. Furthermore, as with the proposed Farrell-Garnet subtransmission line, implementation of Mitigation Measures 4.7-1, 4.13-1, 4.13-2, and 4.15-1 would be applicable to Alternative 3 and would ensure that potential impacts to public services would be reduced to less than significant (Class II).

Alternative 5

As with the proposed Mirage-Santa Rosa subtransmission line, implementation of the Alternative 5 subtransmission line would increase reliability and accommodate existing and planned electrical load growth, rather than induce growth. Operation and maintenance activities associated with Alternative 5 would be generally the same as under the proposed Mirage-Santa Rosa subtransmission line. Compared to the proposed Mirage-Santa Rosa subtransmission line, the Alternative 5 subtransmission line would require construction of an underground segment along Ramon Road, Monterey Avenue, and Varner Road, which would result in additional lane closures and would require additional construction personnel. However, the additional crew necessary for construction of Alternative 5 would not induce population growth directly or indirectly; therefore, the demand for fire protection and emergency medical services, police protection, schools, and other public facilities would not be substantially different than under the proposed Mirage-Santa Rosa subtransmission line. Furthermore, as with the proposed Mirage-Santa Rosa subtransmission line, implementation of Mitigation Measures 4.7-1, 4.13-1, 4.13-2, and 4.15-1 would be applicable to Alternative 5 and would ensure that potential impacts to public services would be reduced to less than significant (Class II).

Alternative 6

As with the proposed Farrell-Garnet subtransmission line, implementation of the Alternative 6 subtransmission line would increase reliability and accommodate existing and planned electrical load growth, rather than induce growth. Operation and maintenance activities associated with Alternative 6 would be generally the same as under the proposed Farrell-Garnet subtransmission line. Compared to the proposed Farrell-Garnet subtransmission line, the Alternative 6

subtransmission line would require construction of a one-mile long underground segment along Vista Chino, which would result in additional lane closures and may require additional construction personnel. However, the additional crew necessary for construction of Alternative 6 would not induce substantial population growth directly or indirectly; therefore, the demand for fire protection and emergency medical services, police protection, schools, and other public facilities would not be substantially different than under the proposed Farrell-Garnet subtransmission line. Furthermore, as with the proposed Farrell-Garnet subtransmission line, implementation of Mitigation Measures 4.7-1, 4.13-1, 4.13-2, and 4.15-1 would be applicable to Alternative 6 and would ensure that potential impacts to public services would be reduced to less than significant (Class II).

Alternative 7

As with the proposed Farrell-Garnet subtransmission line, implementation of the Alternative 7 subtransmission line would increase reliability and accommodate existing and planned electrical load growth, rather than induce growth. Operation and maintenance activities associated with Alternative 7 would be generally the same as under the proposed Farrell-Garnet subtransmission line. Compared to the proposed Farrell-Garnet subtransmission line, Alternative 7 would require construction of 9.1 miles of new overhead single-circuit subtransmission line rather than 5.8 miles; therefore, additional crew and/or a longer construction period duration may be necessary to construct this alternative. However, the additional crew and/or time necessary for construction of Alternative 7 would not induce population growth directly or indirectly; therefore, the demand for fire protection and emergency medical services, police protection, schools, and other public facilities would not be substantially different than under the proposed Farrell-Garnet subtransmission line. Furthermore, as with the proposed Farrell-Garnet subtransmission line, implementation of Mitigation Measures 4.7-1, 4.13-1, 4.13-2, and 4.15-1 would be applicable to Alternative 7 and would ensure that potential impacts to public services would be reduced to less than significant (Class II).

References – Public Services

Cathedral City Fire Department (CCFD), 2008a. Website (http://www.cathedralcitypolice.com/), accessed on May 30, 2008.

CCFD, 2008b. Personal communication with Fire Marshall Mike Hatfield on June 6, 2008.

Cathedral City Police Department (CCPD), 2008. Personal communication with Lieutenant Chuck Robinson on June 10, 2008.

City of Cathedral City, 2002. *General Plan: Fire and Police Protection Element*, adopted July 31, 2002.

City of Indian Wells, 1996. *General Plan: Public Safety Element*, adopted February 1, 1996.

City of Indian Wells, 2008, Personal communication with Personnel Public Safety Director, Mel Windsor, on May 30, 2008.

City of Indian Wells, 2009, Website (http://www.cityofindianwells.org/Fire), accessed on October 27, 2009.

City of Palm Desert, 2004. *General Plan: Police and Fire Protection Element*, adopted March 15, 2004.

City of Palm Springs, 2007. *General Plan: Safety Element*, adopted October, 2007. Accessed online (http://www.ci.palm-springs.ca.us/planning/General_Plan_linked_chapters.pdf).

City of Rancho Mirage, 1997. *General Plan: Public Services and Utilities Element*, adopted January 1997. Accessed online (http://www.ci.rancho-mirage.ca.us/pdf/generalplan/Ch09_PublicServicesandFacilities.pdf).

Palm Desert Fire Marshal (PDFM), 2008. Personal communication with Fire Safety Specialist and the Fire Marshall's Office Neal Stephenson on June 18, 2008.

Palm Desert Police Station (PDPS), 2008. Personal communication with Sergeant Flores on June 5, 3008.

Palm Springs Fire Department (PSFD), 2008. Personal communication with Division Chief and Fire Marshall Scott Ventura on June 4, 2008.

PSFD, 2009. *Palm Springs Fire Department Profile*, August 2009.

Palm Springs Police Department (PSPD), 2008a. Website (http://www.pspd.com/faqs.html), accessed on May 29, 2008.

PSPD, 2008b. Personal communication with Captain Ron Stars on June 19, 2008.

Palm Springs Unified School District (PSUSD), 2008. Website (http://www.psusd.us/Index.aspx?page=2), accessed on May 30, 2008.

Rancho Mirage Fire Department (RMFD), 2009. Fire department website (http://www.ranchomirageca.gov/departments/fire/index.php), accessed October 27, 2009.

Rancho Mirage Police Department (RMPD), 2009. Website (http://www.ranchomirageca.gov/departments/police/divisions.php), accessed on November 2, 2009.

Riverside County Fire Department (RCFD), 2008. Personal communication with Strategic Planning Captain Tony Fox, and Deputy Fire Marshall Dale Evanson on June 5, 2008.

RCFD, 2009. Riverside County Fire Department website (http://www.rvcfire.org/opencms/index.html), accessed October 27, 2009.

Riverside County Integrated Project (RCIP), 2002. *General Plan Final Program Environmental Impact Report.* State Clearinghouse No. 2002051143.

RCIP, 2003. *Riverside County General Plan*, October 2003.

4.14 Recreation

This section presents the environmental setting and impact analysis related to study area parks and other recreational resources.

4.14.1 Setting

The Proposed Project and alternatives would be located in Coachella Valley in central Riverside County. Riverside County incorporates a wide range of open space, parks, and recreational areas. The parks and recreational areas within the County also serve residents and visitors in the western portion of the County, as well as in the desert, mountain, and Colorado River regions (Riverside County, 2003). The discussions below provide descriptions of the recreational resources in the vicinity of the Farrell-Garnet and Mirage-Santa Rosa study areas that would be within one mile of the Proposed Project and alternatives.

Farrell-Garnet Study Area

The Palm Springs Country Club golf course extends from a location east of Sunrise Way, near San Rafael Road, down to a location west of Gene Autry Trail, near East Verona Road. This golf course is located approximately 0.25 mile to the west of the proposed Farrell-Garnet subtransmission line alignment and is approximately 500 feet east of the Alternative 2 and 3 alignments. In addition, a portion of the Escena Golf Club is located east of Gene Autry Trail, approximately 0.25 mile southeast of the Farrell Substation and approximately 800 feet south of the Alternative 6 and 7 alignments. The Desert Princess Country Club golf course is located adjacent to the Alternative 6 and 7 alignments and approximately 0.75 mile east of Farrell Substation. The Cimmaron Resort golf course is located approximately 0.7 mile south of the Alternative 6 alignment and approximately 200 feet from the Alternative 7 alignment at its southernmost edge. The Cathedral Canyon Country Club golf course, Outdoor Resort and Country Club golf course, and Tahquitz Creek golf course are located 600 feet south, 0.4 mile east, and 0.5 mile southeast of the Alternative 7 alignment, respectively.

Ruth Hardy Park is located approximately 0.75 mile southwest of the Alternative 2 and 3 alignments. Victoria Park is located approximately 0.5 mile south of the Alternative 3 alignment and 0.75 mile west of the Alternative 2 alignment. The Desert Highland Park is located approximately 0.4 mile west of the Alternative 3 alignment. Panorama Park, located in Cathedral City, is approximately 0.4 mile south of the Alternative 6 alignment and approximately 0.4 mile east of the Alternative 7 alignment. Century Park and the Desert Memorial Park Cemetery are both located approximately 0.9 mile east of the Alternative 7 alignment. The Big League Dreams Sport Park is located approximately 0.3 mile southeast of the Alternative 7 alignment.

Mirage-Santa Rosa Study Area

Recreational resources within the vicinity of the proposed subtransmission and transmission alignments and sites in the Mirage-Santa Rosa study area include the Coachella Valley Preserve,

the Tri-Palm Golf Course, and the Ivey Ranch Country Club golf course. The Coachella Valley Preserve is open space used for conservation purposes and is located approximately one mile east of the proposed subtransmission and transmission line alignments.

The proposed Mirage-Santa Rosa alignment would traverse in a north-south orientation through the eastern portion of the Tri-Palm Golf Course within an existing SCE right-of-way (ROW). The existing pole behind the tee box for the course's eighth hole would be replaced and three poles would be replaced that are adjacent to the fairway of the tenth hole. The Alternative 5 alignment would be located approximately 700 feet south of the Tri-Palm Golf Course.

The Ivey Ranch Country Club golf course is approximately 0.7 mile east of the southern end of the proposed Mirage-Santa Rosa subtransmission line alignment and the Alternative 5 alignment. The Westin Mission Hills Resort (Pete Dye Course) and Mission Hills County Club are less than 0.25 mile southwest of the proposed line reconfiguration site at Bob Hope Drive and Dinah Shore Drive and the Marriott Shadow Ridge Golf Club golf course is located approximately 0.5 mile southwest of the proposed line reconfiguration site at Portola Avenue and Gerald Ford Drive.

Regulatory Setting

Riverside County

The following Riverside County General Plan policies that relate to recreation may be applicable to the Proposed Project and alternatives (Riverside County, 2003):

> *Policy OS 20.2:* Prevent unnecessary extension of public facilities, services, and utilities, for urban uses, into Open Space-Conservation designated areas.
>
> *Policy OS 20.3:* Discourage the absorption of dedicated park lands by non-recreational uses, public or private. Where absorption is unavoidable, replace park lands that are absorbed by other uses with similar or improved facilities and programs.
>
> *Policy OS 20.6:* Require new development to provide implementation strategies for the funding of both active and passive parks and recreational sites.
>
> *Policy LU 19.5:* Require that new development meet the parkland requirements as established in the Quimby Act and County enabling ordinances.
>
> *Policy C 16.4:* Identify all existing rights-of-way which have been obtained for trial purposes though the land development process.

City of Indian Wells

The City of Indian Wells General Plan Conservation and Open Space Element provides the following policies that would be applicable to the Proposed Project (City of Indian Wells, 1999):

> *Policy IIIA1.1:* Designate and preserve the City's open space resources, including hillside open space, watercourse open space, golf courses, and public parks.

City of Palm Desert

The City of Palm Desert General Plan provides the following goal and program that may be applicable to the Proposed Project (City of Palm Desert, 2004):

> *Goal 1:* The designation, conservation and management of open space areas to protect environmental resource, guard against environmental hazards, and provide enhanced recreational opportunities and enhanced aesthetic character for the City.
>
> *Program 1.B:* Evaluate all development proposals adjacent to or in the vicinity of open space lands and identify their impact upon and compatibility with designated open space and conservation lands.

City of Palm Springs

The City of Palm Springs General Plan includes the following policies that may be applicable to the Proposed Project and alternatives regarding recreation policy guidance (City of Palm Springs, 2007):

> *Policy LU1.11:* Sensitively integrate into the community required land uses such as transportation corridors, flood control systems, utility corridors and recreational corridors.
>
> *Policy LU1.12:* Ensure that land uses maintain and expand parks, recreational trails, bikeways, and pedestrian corridors and linkage throughout the City and between Palm Springs and adjacent municipalities.

City of Cathedral City General Plan

The City of Cathedral City General Plan provides the following policy that would be applicable to the Proposed Project and alternatives (City of Cathedral City, 2002):

> *Policy 3:* The City shall explore and exploit all legitimate and appropriate opportunities to secure and protect valuable open space and conservation lands for the benefit of the entire community.

City of Rancho Mirage General Plan

The City of Rancho Mirage General Plan contains the following policies and program that would be applicable to the Proposed Project (City of Rancho Mirage, 2005):

> *Policy 2:* To the extent feasible, the City shall provide at least three acres of local and community parkland per 1,000 in population, which includes park facilities for all age segments of the population.
>
> *Policy 9:* Through coordination with the local utilities, service providers and the Coachella Valley Water District, the City shall maximize the use of flood control and utility easement areas for inclusion in a multi-use trail system providing alternative transportation links to park and open space areas.

Programs 9.A: Confer and coordinate with the Coachella Valley Water District and utility purveyors to integrate, as practical, a multiple use trail system that links City parks with open space and conservation area.

4.14.2 Significance Criteria

A project would normally have a significant effect on recreational resources if it would:

a) 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; or

b) Disrupt recreational activities, which would adversely affect the recreational value of an existing facility.

4.14.3 Applicant Proposed Measures

SCE has committed to implementing the following applicant proposed measure (APM) related to recreation resources:

APM REC-1. Recreation Area Closures. When temporary short-term closures to recreational areas are necessary for construction activities, SCE would coordinate those closures with recreational facility owners. To the extent practicable, SCE would schedule construction activities to avoid heavy recreational use periods (e.g., holidays or tournaments). SCE would post notice of the closure onsite 14 calendar days prior to the closure.

4.14.4 Recreation Impacts and Mitigation Measures

The potential for adverse impacts on recreational services has been evaluated against the significance criteria, considering current recreational service information and taking into account the goals, policies, and regulations adopted by the various jurisdictions in which the components of the Proposed Project fall.

a) 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.

Increases in demand for recreational facilities are typically associated with substantial increases in population. The Proposed Project would not contain a residential component that would result in increased usage of existing recreational facilities once operational. The construction work force would consist primarily of local workers; therefore, construction activities associated with the Proposed Project would not increase the use of parks or recreational facilities, nor would the project result in the need to construct or expand recreational facilities. Therefore, implementation of the Proposed Project would not result in a substantial increase in demand for recreational facilities such that substantial physical deterioration of the existing facilities would occur or be accelerated (No Impact).

b) Disrupt recreational activities, which would adversely affect the recreational value of existing facilities.

Impact 4.14-1: Construction of the proposed Mirage-Santa Rosa 115 kV Subtransmission line would temporarily disrupt operations of the Tri-Palm Golf Course. *Less than significant* (Class III)

Construction of the proposed Mirage-Santa Rosa subtransmission line would occur within a portion of SCE's existing ROW that traverses the Tri-Palm Golf Course. Construction activities associated with the Mirage-Santa Rosa subtransmission line would require a number of pole replacements on the golf course including a pole that is located behind the tee box for the eighth hole and three poles that are adjacent to the fairway of the tenth hole. Construction activities at these locations would require the closure of holes eight and ten for at least one day each. Poles would also be replaced in the vicinity of three other holes; however, it is anticipated that work in these areas would only require the golfers to take a different route around the construction area to the next available hole.

Construction activities would cause temporary interruptions to the operations of the golf course, which would impact the golfers utilizing the course. However, pursuant to APM REC-1, SCE would coordinate course hole closures with the manager/owner of the golf course, would schedule construction activities to avoid heavy use periods (e.g., holidays or tournaments), and would post notice of the closure at the golf course 14 calendar days prior to the closure. Disruptions to the operations of the Tri-Palm Golf Course would be short-term and temporary in nature; therefore, impacts would be less than significant.

Mitigation: None required.

4.14.5 Cumulative Impacts

The geographic scope of cumulative impacts is the regional recreational facilities in the project area, generally located within Riverside County and the cities of Palm Springs, Cathedral City, Rancho Mirage, Indian Wells, and Palm Desert.

As described above, implementation of the Proposed Project would not result in a substantial increase in demand for recreational facilities such that substantial physical deterioration of the existing facilities would occur or be accelerated. Implementation of new projects as described in Section 3.6, *Cumulative Projects*, would include residential developments which may increase demand on existing recreational facilities and/or result in the need for new recreational facilities within the project vicinity. However, since the Proposed Project would not have an individual incremental impact on demand for recreational facilities once construction is complete, it would not contribute to cumulative demand associated with other reasonably foreseeable projects (No Impact).

There are a number of other reasonably foreseeable development projects within the vicinity of the Tri-Palm Golf Course; however, none of these projects would actually be constructed in the

golf course and would therefore not impact operation of the course. Since there are no reasonably foreseeable projects that would impact the golf course simultaneously with construction of the Proposed Project, short-term impacts associated with the proposed Mirage-Santa Rosa subtransmission line would not be cumulatively considerable and cumulative impacts would be less than significant (Class III).

4.14.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Under the No Project Alternative, none of the facilities or infrastructure upgrades associated with the Proposed Project evaluated in this EIR would be constructed by SCE. However, SCE would be required to design a new project in order to satisfy the objectives of the Proposed Project. Any project that would satisfy the objectives of the Proposed Project would not likely result in impacts related to increased use of existing parks or recreational facilities (No Impact).

If the No Project Alternative required SCE to acquire new ROW or would be constructed through or immediately adjacent to a recreational facility, there would be a potential that the alternative could result in impacts to recreation resources. However, it is likely that either an applicant proposed measure similar to APM REC-1 would be effective in reducing recreation impacts to less than significant (Class III).

Alternative 2

As with the proposed Farrell-Garnet subtransmission line, the Alternative 2 subtransmission line would not include or require the construction or expansion of recreational facilities; no impact would occur (No Impact).

The nearest recreational facilities to the Alternative 2 alignment include the Palm Springs Country Club golf course, approximately 500 feet east of the alignment, as well as Rudy Hardy Park and Victoria Park, located 0.75 mile southwest and west of the alignment, respectively. However, construction and operation of the Alternative 2 subtransmission line would not disrupt activities at any of these facilities; no impact would occur (No Impact).

Alternative 3

As with the proposed Farrell-Garnet subtransmission line, the Alternative 3 subtransmission line would not include or require the construction or expansion of recreational facilities; no impact would occur (No Impact).

The nearest recreational facilities to the Alternative 3 alignment include the Palm Springs Country Club golf course, approximately 500 feet east of the alignment, and the Desert Highland Park located approximately 0.4 mile east of the alignment. The Alternative 3 subtransmission line would also be located within 0.75 mile of Rudy Hardy Park and within 0.5 mile of Victoria Park. However, construction and operation of this alternative would not disrupt activities at any of these facilities; no impact would occur (No Impact).

Alternative 5

As with the proposed Mirage-Santa Rosa subtransmission line, Alternative 5 would not include or require the construction or expansion of recreational facilities; no impact would occur (No Impact).

The nearest recreational facilities to the Alternative 5 alignment would include the Tri-Palm golf course, approximately 700 feet north of the alignment, and the Ivey Ranch Country Club golf course located approximately 0.7 mile east of the alignment. Unlike the proposed Mirage-Santa Rosa subtransmission line, construction of this alternative would not disrupt activities at any of these facilities, including the Tri-Palm Golf Course, which would be disturbed during construction activities that would be associated with the proposed Mirage-Santa Rosa subtransmission line; no impact would occur (No Impact).

Alternative 6

As with the proposed Farrell-Garnet subtransmission line, the Alternative 6 subtransmission line would not include or require the construction or expansion of recreational facilities; no impact would occur (No Impact).

The Alternative 6 alignment is located immediately adjacent to the Desert Princess Country Club along Vista Chino. This alternative would involve pole replacement within existing SCE ROW, and therefore encroachment on the golf course would not be expected during construction. However, implementation of APM REC-1 would ensure that impacts to the golf course would be less than significant (Class III).

Alternative 7

As with the proposed Farrell-Garnet subtransmission line, the Alternative 7 subtransmission line would not include or require the construction or expansion of recreational facilities; no impact would occur (No Impact).

The Alternative 7 alignment is located immediately adjacent to the Desert Princess Country Club along Vista Chino and Landau Boulevard. This alternative would involve pole replacement within existing SCE ROW, and therefore, encroachment on the golf course would not be expected during construction. However, implementation of APM REC-1 would ensure that impacts to the golf course would be less than significant (Class III).

References – Recreation

City of Cathedral City. 2002. City of Cathedral City General Plan. Adopted July 31, 2002.

City of Indian Wells. 1999. City of Indian Wells General Plan. Adopted February 1, 1999.

City of Palm Desert. 2004. City of Palm Desert General Plan. Adopted March 2004.

City of Palm Springs. 2007. City of Palm Springs 2007 General Plan. Adopted October 2007.

City of Rancho Mirage. 2005. City of Rancho Mirage General Plan. Adopted November 2005.

Riverside County. 2003. *Riverside County General Plan.* Adopted October 7, 2003. Accessed website (http://www.rctlma.org/generalplan/index.html) during June 2008.

4.15 Transportation and Traffic

This section presents the environmental setting and impact analysis for transportation facilities that would be associated with the Proposed Project and alternatives. The purpose of this section is to assess the impacts of the Proposed Project and alternatives on traffic operations and other transportation modes in the surrounding area.

4.15.1 Setting

The study area is primarily a suburban, low-density area with its major trip attractors (e.g., commercial and retail districts) dispersed throughout the Coachella Valley. Therefore, the dominant mode of transportation is the private automobile. Trips by public transit currently represent less than two percent of all trips made in the area. Public transportation, where service is available, is utilized primarily by a transit-dependent population (e.g., senior citizens, students, low-income residents, and the physically disabled) that generally do not have access to automobiles (Riverside County, 2002).

The transportation system network that would be affected by the Proposed Project components or alternatives is located in central Riverside County in the northwestern part of Coachella Valley. The transportation system is composed of a roadway network, a local transit system, bicycle routes, an airport, and a railroad right-of-way (ROW).

Regional Roadway Network

Regional access to the study area is provided by several State and local roadways, each of which would be used to transport construction materials, equipment, and workers to and throughout the study area. Regional access to the study area is primarily provided by Interstate-10 (I-10). In addition, access between the various areas in Coachella Valley is provided by State Route 111 (SR 111). Below are summary descriptions of these roadways.

Interstate 10 (I-10), also known in the study area as the San Bernardino Freeway, is an east-west freeway that extends from Jacksonville, Florida, through the southern United States, to Santa Monica, California. In the study area, I-10 is under the jurisdiction of the California Department of Transportation (Caltrans) and generally has six to eight lanes and is a limited access freeway that traverses in a northwest-southeasterly direction. Traffic volumes along I-10 in the study area are highest in the Thousand Palms area, with an annual average daily traffic (ADT) level of 97,000 vehicles per day (vpd). In the Palm Springs area to the northwest, traffic volumes are lower, with annual ADT levels ranging between 79,000 and 81,000 vpd (Caltrans, 2009). The proposed Mirage-Santa Rosa 115 kV subtransmission line and the Alternative 5 subtransmission line would require an overhead crossing of I-10 in the Thousand Palms area and the Alternative 6 and 7 subtransmission lines would cross I-10 near Date Palm Drive in the City of Cathedral City.

State Route 111 (SR 1I1) is generally a northwest-southeast oriented highway under the jurisdiction of Caltrans that traverses through the entire Coachella Valley. It runs from Calexico,

in Imperial County, California, up to the northwest through Palm Springs where it ends at an interchange with I-10. In Palm Springs, SR 111 is composed of surface streets, including Vista Chino west of Gene Autry Trail and Gene Autry Trail south of Vista Chino. The annual ADT levels for SR 111 in the study area vary between 10,500 vpd near Indian Canyon Drive to 29,000 vpd near Farrell Drive (Caltrans, 2009). The underground portions of the Alternative 2 and 3 subtransmission lines would be within the SR 111 ROW from Gene Autry Trail to Sunrise Way.

Local Roadway Network

The local roadways that would border, cross, or may be used to access the study area are described below. Theses roads would be affected during line stringing activities over the roads or during trenching activities within the roads, and would be used for access throughout the construction phase of the project. The majority of the local roads experience low to moderate traffic volumes. Below are summary descriptions of the roadways that would be affected by the Proposed Project components, and/or the alternatives in the Farrell-Garnet and Mirage-Santa Rosa study areas.

Farrell – Garnet Study Area

Proposed Farrell-Garnet Alignment

The proposed Farrell-Garnet 115 kV line would be an overhead subtransmission line that would parallel within or immediately adjacent to a number of City of Palm Springs road ROWs, including those listed below. In addition to the roadways listed below, the proposed alignment would also result in an overhead crossing of Executive Drive.

North Gene Autry Trail. The proposed Farrell-Garnet subtransmission line alignment runs parallel to the east side of North Gene Autry Trail from Farrell Substation to a point approximately 1,000 feet south of the Union Pacific Railroad (UPRR), where it would cross to the west side of the road and continue away from the road. North Gene Autry Trail is under the jurisdiction of the City of Palm Springs and is a two-lane road in the vicinity of the proposed alignment. This road has recently been paved from Vista Chino (SR 111; see above) to the UPRR (City of Palm Springs, 2008). North Gene Autry Trail has moderate daily traffic levels of approximately 22,600 vpd (CVAG, 2009).

Salvia Road. Salvia Road is an east-west trending road in the City of Palm Springs that parallels the proposed Farrell-Garnet subtransmission line alignment from a point approximately 1,000 feet west of Gene Autry Trail to the road's west end where it ends in an SCE ROW. Salvia Road is a narrow road with no lane stripes and low traffic levels.

Garnet Avenue. The proposed Farrell-Garnet subtransmission line alignment parallels Garnet Avenue from the Garnet Substation to the road's eastern extent, where it dead ends at a road block. Garnet Avenue is a two lane road that parallels the south side of I-5 and has no lane stripes and has low traffic levels.

115 kV Reconfiguration Varner Road and Date Palm Drive

A proposed subtransmission line reconfiguration would occur at the intersection of Varner Road and Date Palm Drive, within the City of Cathedral City. This reconfiguration would require an overhead crossing of Varner Road. Date Palm Drive and Varner Road both have two lanes in the vicinity of the intersection. Traffic counts collected in 2009 indicate total vpd in the study area along Date Palm Drive and Varner Road to be approximately 10,200 and 12,800, respectively (CVAG, 2009).

Alternatives 2, 3, 6, and 7

The Alternative 2 subtransmission line would include construction of approximately six miles of a new underground and overhead single-circuit 115 kV subtransmission line between Farrell and Garnet substations. Roads that would be impacted by construction of the underground segment associated with Alternative 2 would include Vista Chino (SR 111) and North Sunrise Way. The Alternative 3 subtransmission line would include construction of an underground segment along Vista Chino (SR 111), North Sunrise Way, and San Rafael Road. The Alternative 3 subtransmission line would also parallel Indian Canyon Drive to the Garnet Substation after transitioning overhead just north of the intersection of Indian Canyon Drive and San Rafael Road. The Alternative 6 subtransmission line would include the construction of approximately 4.2 miles of new underground and overhead subtransmission line between Farrell Substation and the existing Garnet-Santa Rosa 115 kV ROW, including a one-mile underground segment along Vista Chino between Landau Boulevard and Date Palm Drive. This alternative line would also parallel Date Palm Drive as an overhead line between Vista Chino and Varner Road. Alternative 7 would include construction of approximately 9.1 miles of new overhead subtransmission line along Vista Chino, Landau Boulevard, 33rd Avenue, and Date Palm Drive. Each of the roadways that would be affected by the Alternative 2, 3, 6, and 7 subtransmission lines are described in more detail below.

Sunrise Way. Sunrise Way is a four-lane road within the vicinity of the Alternative 2 and 3 alignments. North Sunrise Way is a City of Palm Springs road that has moderate daily traffic levels of approximately 10,000 vpd (Palm Springs, 2007b).

San Rafael Road. San Rafael Road falls under the jurisdiction of the City of Palm Springs and has four travel lanes and a turning lane in the study area. Daily traffic levels are not available for San Rafael Road.

Indian Canyon Drive. Indian Canyon Drive is under the jurisdiction of the City of Palm Springs and is a four-lane road along the southern part of the Alternative 3 alignment and a two-lane road along the northern part of the alignment. Indian Canyon Drive has moderate daily traffic levels of approximately 15,200 vpd (CVAG, 2009).

Vista Chino. To the east of Gene Autry Trail, Vista Chino is a four-lane roadway with moderate traffic levels. This road is under the jurisdiction of the City of Palm Springs from Gene Autry Trail to a point approximately three quarters of a mile east of Gene Autry Trail, and under the jurisdiction of the City of Cathedral City east of this location. According to 2009 traffic counts,

daily traffic levels are approximately 25,000 vpd along the portion of Vista Chino that the Alternative 6 and 7 alignments parallel (CVAG, 2009).

Landau Boulevard. Landau Boulevard is a four-lane roadway located within the City of Cathedral City. The most recent traffic data available for this roadway were taken in 1997; according to this data, daily traffic levels were approximately 9,500 vpd (City of Cathedral City, 2009).

33rd Avenue. 33rd Avenue is a two-lane roadway located within the City of Cathedral City. Daily traffic volumes are not available for 33rd Avenue.

Date Palm Drive. Date Palm Drive is a four-lane City of Cathedral City road with a turning lane within the study area. Average daily traffic volumes measured along this roadway in 2009 were approximately 20,800 vpd between Vista Chino and 30th Avenue and approximately 30,000 vpd north of Vista Chino (CVAG, 2009).

Mirage – Santa Rosa Study Area

Proposed Alignments

The proposed Devers-Coachella Valley 220 kV Loop-In would result in a new overhead line within SCE's existing ROW. The proposed 220 kV loop-in would not be constructed within or immediately adjacent to any road ROW. The proposed Mirage-Santa Rosa subtransmission line would be an overhead subtransmission line that would result in an overhead crossing of I-10 in the Thousand Palms area, as well as overhead crossings of a number of local Riverside County roads, including Ramon Road, Calle Desierto, and Varner Road. In addition to road crossings, the proposed Mirage-Santa Rosa subtransmission line would be installed within or immediately adjacent to Vista De Oro.

Ramon Road. The proposed Mirage-Santa Rosa subtransmission line alignment crosses Ramon Road immediately south of Mirage Substation. Ramon Road is a two-lane Riverside County Road that has been recently paved between Vista De Oro and Monterey Road. A traffic measurement collected in 2009 along Ramon Road west of Thousand Palms Canyon indicated relatively low daily traffic levels of approximately 2,400 trips per day. However, just west of Monterey Avenue, Ramon Road experienced relatively moderate daily traffic levels of approximately 9,200 vpd (CVAG, 2009).

Calle Desierto. The proposed Mirage-Santa Rosa alignment crosses Calle Desierto approximately three quarters of a mile south of Ramon Road. Calle Desierto is a dirt road with low traffic levels and is under the jurisdiction of Riverside County.

Vista De Oro. The proposed Mirage-Santa Rosa subtransmission line would be installed within or immediately adjacent to Vista De Oro from Ramon Road to Calle Desierto. Vista De Oro is a dirt road with low traffic levels and is under the jurisdiction of Riverside County.

Varner Road. Varner Road is a two-lane Riverside County Road that is crossed by the proposed Mirage-Santa Rosa subtransmission line alignment and is in the vicinity of the Alternative 5

alignment (i.e., between Monterey Road and the existing overhead 115 kV crossing). A traffic measurement collected in 2009 along Varner Road indicated relatively low to moderate daily traffic levels of approximately 3,800 vpd (CVAG, 2009).

Proposed 115 kV Reconfigurations

There are two subtransmission line reconfigurations proposed within the Mirage-Santa Rosa study area. The reconfigurations would be at the intersections of Bob Hope Drive and Dinah Shore Drive and at Portola Avenue and Gerald Ford Drive. The intersection of Bob Hope Drive and Dinah Shore Drive is under the jurisdiction of Riverside County, with the exception of the southwest corner, which is under the jurisdiction of the City of Rancho Mirage. The intersection of Portola Avenue and Gerald Ford Drive is under the jurisdiction of Palm Desert. Overhead crossings of Gerald Ford Drive, Dinah Shore Drive, and Bob Hope Drive would be required.

Traffic counts collected in 2009 indicate total vpd of approximately 9,500 along Gerald Ford Drive, east of Monterey Avenue. Bob Hope Drive north of Dinah Shore Drive has relatively moderate daily traffic levels of approximately 14,200 vpd, while Dinah Shore Drive west of Bob Hope Drive experiences daily traffic levels of approximately 13,900 vpd according to 2009 traffic counts (CVAG, 2009).

Alternative 5

The Alternative 5 subtransmission line would include an underground segment from Mirage Substation along Ramon Road, Monterey Avenue, and Varner Road to a location just north of Varner and I-10, where the line would transition to overhead and join the existing 115 kV line before crossing over Varner Road, I-10, and the UPRR. The Alternative 5 subtransmission line would result in underground crossings of Desert Moon Drive and San Miguelito Drive. Ramon Road and Varner Road are described in more detail above under the discussion of the proposed alignments. Monterey Avenue is described in more detail below.

Monterey Avenue. Monterey Avenue is a four-lane Riverside County road in the vicinity of the Alternative 5 alignment (i.e., between Ramon Road and Varner Road). This road was recently widened from two lanes to four lanes as part of the Thousand Palms Beautification Project. A traffic measurement collected in 2009 along Monterey Avenue south of Ramon Road indicated relatively moderate daily traffic levels of approximately 8,200 vpd (CVAG, 2009).

Public Transit

SunLine Transit Agency (SunLine) provides public transit services in Coachella Valley, including 10 active fixed bus routes. Several of the SunLine bus routes utilize roadways and intersections that would be affected by the Proposed Project and/or alternatives, including (SunLine, 2009):

- Route 14 on Gene Autry Trail and Vista Chino, with a stop at the intersection of Gene Autry Trail and Vista Chino;

- Route 23 on Vista Chino and Sunrise Way, with stops at the intersection of Vista Chino and Sunrise Way and on Sunrise Way at the Coyote Run apartments;
- Route 24 on Vista Chino and Indian Canyon with a stop at the intersection of Vista Chino and Sunrise Way; and
- Route 32 on Vista Chino, Date Palm Drive, Ramon Road, Monterey Avenue, Dinah Shore Drive, and Bob Hope Drive with a stop at Monterey Avenue and Ramon Road.

Amtrak and Greyhound also provide private bus transportation services that link the principal population centers of Riverside County with outside areas.

Bicycle and Pedestrian Transportation

Bicycle lanes and pedestrian sidewalks exist throughout the study area, but are more concentrated in the incorporated and residential areas. There is a designated pedestrian sidewalk path located along Sunrise Way in the vicinity of the Alternative 2 and 3 alignments. There is also a designated sidewalk path located at the intersection of Bob Hope Drive and Dinah Shore Drive near one of the proposed subtransmission line reconfiguration sites.

In addition to pedestrian facilities, there are several existing and proposed Class II bike lanes and Class III bike routes in the study area that are located on roadways that would be affected by the Proposed Project and/or the alternatives. In addition, there is a proposed Class I bike path within the vicinity of the proposed Farrell-Garnet alignment and the Alternative 2, 3, 6 and 7 alignments. A Class I bike path is defined as a non-motorized facility, paved or unpaved, which is physically separated from motorized traffic by an open space or barrier. A Class II bike lane is defined as a portion of roadway that is designated by striping, signs, and pavement markings for the preferential or exclusive use by bicyclists. A Class III bike route is defined as an unprotected on-street bikeway that shares the roadway with vehicular traffic and is typically characterized as any type of bikeway, including streets signed as bikeways, that offers no other specific lane or other accommodation for bicycles.

There is an existing Class II bike lane located on Vista Chino in the vicinity of the Alternative 6 and 7 alignments. Landau Boulevard also has a Class II bike lane in the vicinity of the Alternative 7 alignment. There are Class II bike lanes at the proposed subtransmission line reconfiguration site at Dina Shore Drive and Portola Avenue as well as the proposed reconfiguration site at Dinah Shore and Bob Hope Drive. There is an existing Class III bike route along Vista Chino in the vicinity of the Alternative 2 and 3 alignments (CVCTA, 2009).

In addition to existing bicycle facilities, there are a number of proposed bicycle facilities in the study area. There is a proposed Class II bike lane that would be along Gene Autry Trail within the vicinity of the proposed Farrell-Garnet subtransmission line alignment. There is another proposed bike lane that would be along Indian Canyon Drive in the vicinity of the Alternative 3 alignment. A Class III bike route is proposed along North Sunrise Way north of San Rafael Road, in the vicinity of the Alternative 2 alignment. Additionally, there is a proposed Class I bike path that would be located in the City of Palm Springs and would cross under the proposed Farrell-Garnet

subtransmission line along Gene Autry Trail. This proposed path would also cross the underground segments of the Alternative 2 and 3 subtransmission lines (CVCTA 2009).

Airports

One airport (Palm Springs International) is located in the study area. Palm Springs International is located immediately south of Vista Chino and west of Gene Autry Trail in the City of Palm Springs. The northern portion of the main runway is approximately 1,500 feet south of the Alternative 2 and 3 alignments and approximately 4,000 feet southwest of the southern end of the proposed Farrell-Garnet 115 kV alignment. Palm Springs International is the largest of the three airports in the Coachella Valley and provides connections to many key points throughout California and the continental United States. Palm Springs International Airport is served by a dozen airlines that connect to hundreds of cities worldwide. Air freight is also handled at the airport. There are approximately 100 daily flights at the airport (PSIA, 2008).

Rail Service

The UPRR line runs the entire length of the states of California, Oregon, and Washington and numerous other western states. In the study area, the UPRR runs primarily parallel to the south side of I-10. Both of the proposed 115 kV alignments and each of the alternative alignments would cross the UPRR ROW.

The UPRR is used to provide freight service in the study area, connecting Riverside County with major markets in California and the nation. The UPRR currently runs up to 50 freight trains per day (City of Palm Springs, 2008). In addition to freight, Amtrak provides regional passenger rail service in the study area. Palm Springs is currently a stop on Amtrak's Sunset Limited service between Los Angeles and New Orleans. The North Palm Springs Amtrak train station is located west of Indian Canyon Drive just south of I-10 (City of Palm Springs, 2007a).

Regulatory Context

The development and regulation of the study area transportation network involves State and local jurisdictions. All roads within the study area are under the jurisdiction of State or local agencies. State jurisdiction includes permitting and regulation of the use of State roads, while local jurisdiction includes implementation of State permitting, policies, and regulations, as well as management and regulation of local roads. Construction work that would occur within or over a public roadway would require encroachment permits prior to commencing work in the public ROW from all jurisdictions that manage or maintain the applicable roadway(s). Applicable State and local laws and regulations related to traffic and transportation issues are discussed below.

California Department of Transportation

Caltrans manages interregional transportation, including management of construction activities within or above the California highway system. In addition, Caltrans is responsible for permitting

and regulating the use of State roadways. The study area includes two roadways that fall under Caltrans' jurisdiction (i.e., I-10 and SR 111).

Caltrans' construction practices require temporary traffic control planning for any time the normal function of a roadway is suspended. In addition, Caltrans requires that permits be obtained for transportation of oversized loads and transportation of certain materials, and for construction-related traffic disturbances. Caltrans regulations would apply to the transportation of oversized loads associated with the construction of the Proposed Project and/or alternatives.

Riverside County and Desert Cities General Plans

The majority of the roads that parallel or would be crossed by the Proposed Project components or alternatives are under the jurisdiction of Riverside County or the cities of Palm Springs, Cathedral City, Rancho Mirage, or Palm Desert. County and city policies and regulations regarding the design or use of roadways are detailed in the circulation and transportation elements of local general plans. However, because the plans focus on the design and implementation of circulation system improvements, policies in these elements do not directly relate to the Proposed Project components or alternatives.

4.15.2 Significance Criteria

Based in part on criteria in Appendix G of the CEQA Guidelines, a project would be considered to have a significant effect on the environment if it would:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections);

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that would result in substantial safety risks;

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);

e) Result in inadequate emergency access;

f) Result in inadequate parking capacity;

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., conflict with policies promoting bus turnouts, bicycle racks, etc.).

4.15.3 Applicant Proposed Measures

SCE has committed to implementing the following applicant proposed measures (APMs) with regard to traffic and transportation:

APM TRA-1. Obtain Permits. If any work requires modifications or activities within local roadway ROWs, appropriate permits will be obtained prior to the commencement of construction activities, including any necessary local permits and encroachment permits.

APM TRA-2. Traffic Management and Control Plans. Traffic control and other management plans will be prepared where necessary to minimize project impacts on local streets.

APM TRA-3. Minimize Street Use. Construction activities will be designed to minimize work on or use of local streets.

4.15.4 Impacts and Mitigation Measures

Approach to Analysis

According to the CEQA *Guidelines*, a project would normally result in an impact to transportation and traffic if it would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. Occasional post-construction maintenance activities involving one or two vehicle trips at a time would briefly affect only local segments. Therefore, long-term operational impacts would be inconsequential.

The duration of potentially significant impacts related to short-term disruption of traffic flow and increased congestion generated by construction vehicles and/or loss of a travel lane to accommodate the construction work zone, would be limited to the period of time needed to complete construction of a project component. Therefore, mitigation measures are identified below that focus on reducing the short-term construction effects of the Proposed Project. Short-term impacts associated with transportation and traffic would result from increases in traffic volumes, temporary closure of roads and loss of travel lanes, and potential safety impacts.

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections).

The Proposed Project components would not introduce any new uses to the project area that would generate long-term changes in traffic. Thus, potential traffic and transportation effects would be confined to construction of the Proposed Project (No Impact).

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b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

Impact 4.15-1: Construction activities could adversely affect traffic and transportation conditions in the project area. ***Less than significant with mitigation*** **(Class II)**

It is anticipated that Proposed Project construction activities would require up to 1.5 years to complete assuming that construction activities associated with the various components would overlap. Activities are expected to begin in the second quarter of 2010 and would continue through mid-2011. The combined number of construction workers that would be required to construct the Proposed Project components would be approximately 300 crew members. However, it is assumed that the majority of the crews would move from one project component site to the next (e.g., from one substation site to the next site) site, resulting in the need for fewer than 300 total construction crew members. It is estimated that several construction crews would operate concurrently each day, with a maximum of up to approximately 100 workers commuting to the various work sites on any given day. Construction activities would also include hauling of oversize loads, including poles, lattice steel, conductor spools, substation hardware, various types of equipment, etc.

Assuming a trip generation rate of 1.5 trips per day per worker, the estimated up to 100 employees would not be anticipated to generate more than 150 auto round trips. In addition, materials would be imported and exported from the project sites during construction activities which would generate a number of truck trips to and from the various sites. Construction-generated traffic would be temporary and therefore would not result in any long-term degradation in operating conditions or level of service on any of the roadways in the vicinity of the Proposed Project. It should also be noted that because not all construction-related trips would be assigned to the same construction location (i.e., crews would be assigned to a given substation or a different section of the subtransmission and transmission line alignments), these project-generated trips would be dispersed throughout the study area and would not result in substantial traffic.

Installation of the proposed subtransmission lines would require overhead crossings of several public roadways, including Executive Drive, Gene Autry Trail, Ramon Road, Varner Road, Calle Desierto, Gerald Ford Drive, Dinah Shore Drive, Bob Hope Drive, and I-10. Stringing the subtransmission line on poles across these roadways would temporarily disrupt existing transportation and traffic patterns in the vicinity of the crossings. Impacts would include direct disruption of traffic flows and street operations.

Prior to stringing conductor across roads, it is anticipated that temporary guard structures would be installed along the road crossings for public protection. The purpose of the guard structures would be to prevent the conductor from being lowered or falling into traffic. Installation and removal of the guard structures would be similar to that of wood poles. It should be noted that the use of guard structures during transmission line stringing activities over roadways would be at the discretion of the regulatory agency with permit authority of the roadway. For example, the County or City may require other or additional safety measures as part of its encroachment permit requirements.

Implementation of APM TRA-1 would require SCE to obtain necessary local and encroachment permits prior to commencement of construction activities, APM TRA-2 would require traffic management and control plans to minimize impacts on local streets, and APM TRA-3 would require SCE to minimize the use of local streets. However, Mitigation Measure 4.15-1 is also recommended to strengthen the intent of the APMs and would ensure that impacts would be less than significant.

Mitigation Measure 4.15-1: SCE's Traffic Management and Control Plan, as required by APM TRA-2, shall include, at a minimum, the measures listed below. The Plan shall be submitted to the CPUC for approval and shall be distributed to all construction crew members prior to commencement of construction activities. The Plan shall:

- Include a discussion of work hours, haul routes, work area delineation, traffic control and flagging;
- Identify all access and parking restriction and signage requirements;
- Require workers to park personal vehicles at the approved staging area and take only necessary project vehicles to the work sites;
- Lay out plans for notifications and a process for communication with affected residents and landowners prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which road/lanes and access point/driveways/parking areas would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints;
- Include plans to coordinate all construction activities with emergency service providers in the area, consistent with Mitigation Measure 4.13-2 (see Section 4.13, *Public Services*). Emergency service providers would be notified of the timing, location, and duration of construction activities. All roads would remain passable to emergency service vehicles at all times; and
- Identify all roadway locations where special construction techniques (e.g., night construction) would be used to minimize impacts to traffic flow.

Significance after Mitigation: Less than Significant.

Operations

Once constructed, the subtransmission and transmission lines would require routine maintenance trips, inspection, and vegetation management activities. Maintenance activities would not increase above existing levels that are employed to maintain the existing subtransmission and transmission line ROWs and therefore, would not result in an increase in traffic in the project area (No Impact).

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c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that would result in substantial safety risks.

The Proposed Project would make intermittent use of helicopters related to inspection activities, but would not change air traffic patterns in the project area. While the nearest airport is located slightly over 0.5 mile from the Farrell Substation and the associated proposed Farrell-Garnet subtransmission line, construction of the Proposed Project would not be expected to interfere with

operation of this airport. For a discussion of general aviation safety hazards associated with the project, refer to Section 4.7, *Hazards and Hazardous Materials* (No Impact).

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d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact 4.15-2: Project construction activities could increase potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways. *Less than significant with mitigation* (Class II)

The Proposed Project would not change the configuration (alignment) of area roadways, and would not introduce types of vehicles that are not already traveling on area roads. However, heavy equipment operating adjacent to or within a road ROW could increase the risk of accidents. Construction related trucks on local and State roadways would interact with other vehicles. Potential conflicts could also occur between construction traffic and alternative modes of transportation (e.g., bicyclists and buses).

Implementation of Mitigation Measure 4.15-1 requires SCE to prepare a Traffic Management and Control Plan in accordance with professional engineering standards prior to construction, including compliance with roadside safety protocols to reduce the risk of accidents. Therefore, temporary increases in the potential for traffic accidents associated with the Proposed Project would be mitigated to a less-than-significant level.

Mitigation Measure: Implement Mitigation Measure 4.15-1.

Significance after Mitigation: Less than Significant.

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e) Result in inadequate emergency access.

Impact 4.15-3: Construction activities could result in delays for emergency vehicles on project area roadways. *Less than significant with mitigation* (Class II)

Construction of the Proposed Project would have temporary effects on traffic flow, particularly where the subtransmission lines would be constructed over roadways. Subtransmission line installation across roads and the associated potential temporary closure of travel lanes could result in delays for emergency vehicles passing through the vicinity.

Implementation of Mitigation Measures 4.15-1 and 4.13-2 require the construction contractor to coordinate all construction activities with emergency service providers to minimize disruption to emergency vehicle access to land uses along the proposed construction alignments. Specific requirements are identified under Mitigation Measures 4.15-1 (see above) and 4.13-2 (see Section 4.13, *Public Services*). Implementation of these measures would ensure potential impacts

associated with temporary effects on emergency access would be mitigated to a less than significant level.

Mitigation Measures: Implement Mitigation Measures 4.15-1 and 4.13-2.

Significance after Mitigation: Less than Significant.

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f) Result in inadequate parking capacity.

Impact 4.15-4: Construction activities could result in inadequate parking capacity within the project area. ***Less than significant*** **(Class III)**

Construction vehicles associated with the Proposed Project that would transport materials and workers on a daily basis to and from the staging areas would be parked overnight at the staging areas or other SCE facilities. Other vehicles would be parked at the various construction sites within the proposed subtransmission and transmission line alignments if space is available and some workers would park near that day's construction site. Nonetheless, given the dispersed nature and small size of the proposed construction workforce, the Proposed Project would not generate a substantial number of parked vehicles along the Proposed Project alignments at any one location. Given the location of the proposed alignments either within or adjacent to road franchise locations, there would be a potential that construction activities could temporarily result in restricted access to public road shoulders that could be used park vehicles. However, any parking restrictions would be for a relatively brief period. Therefore, impacts would be less than significant.

Mitigation: None required.

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g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., conflict with policies promoting bus turnouts, bicycle racks, etc.).

The Proposed Project would not conflict with adopted policies, plans, or programs supporting alternative transportation because the project would not require an increase in long-term use of traditional modes of transportation (No Impact).

4.15.5 Cumulative Impacts

The geographic context for the cumulative impacts associated with transportation and traffic issues is primarily limited to the areas where transportation facilities (e.g., roads, railroads, etc) would be crossed during conductor stringing activities.

Proposed Project construction activities, as described in Chapter 2, *Project Description*, could have a temporary construction-related impact on local traffic flow in the Proposed Project area as street and lane closures may be required. The geographic context for the cumulative impacts associated with transportation and traffic issues is primarily limited to the areas where transportation facilities (e.g., roads, railroads, etc.) would be crossed during conductor stringing activities. In conjunction with other construction projects identified in Section 3.6, *Cumulative Projects*, potential cumulative impacts could occur. For example, the City of Palm Desert has proposed construction of a new westbound loop on-ramp and to realign the existing westbound off-ramp from I-10 to Varner Road. If this project, or other projects identified in Section 3.6 of this EIR, were to be constructed at the same time that components of the Proposed Project would be constructed, a cumulative traffic impact could result along certain access routes to the Proposed Project alignments and sites. However, as identified above, Mitigation Measure 4.15-1 would require SCE to prepare a Traffic Management and Control Plan, which would reduce the construction impacts of the Proposed Project, including effects on emergency access and any increase in hazards, to a less than significant level. Therefore, the Proposed Project would not be cumulatively considerable and cumulative impacts would be mitigated to less than significant (Class II). Furthermore, the limited and dispersed nature of the parking requirements of the Proposed Project would be unlikely to create a cumulatively significant use of local parking capacity when considered with other past, present, and reasonably foreseeable projects (Class III).

During operation, proposed maintenance activities would not increase above existing levels that are employed to maintain the existing subtransmission and transmission line ROWs and substations. Therefore, the Proposed Project would not be cumulatively considerable and there would be no cumulative long-term impacts (No Impact). There would also be no cumulative conflict with adopted policies, plans, or programs supporting alternative transportation (No Impact).

4.15.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Under the No Project Alternative, none of the facilities or infrastructure upgrades associated with the Proposed Project evaluated in this EIR would be constructed by SCE. However, SCE would be required to design a new project in order to satisfy the objectives of the Proposed Project. Any project that would satisfy the objectives of the Proposed Project would likely result in similar impacts to those that would be associated with the Proposed Project. If the No Project Alternative

would include a greater number of roadway crossings, or would require additional road closures, impacts would be greater than those associated with the Proposed Project. However, it is likely that such impacts could be mitigated to a less-than-significant level through implementation of mitigation similar to Mitigation Measure 4.15-1 (Class II).

Alternative 2

Similar to the proposed Farrell-Garnet subtransmission line, the Alternative 2 subtransmission line would not cause a long-term increase in traffic, would not result in impacts to air traffic patterns, nor would it conflict with adopted policies and plans promoting alternative transportation (No Impact). Construction activities associated with the underground segment of the Alternative 2 subtransmission line would be more likely to disrupt parking opportunities along road shoulders compared to the proposed Farrell-Garnet subtransmission line; however, underground line construction activities would proceed in a linear fashion and any one road shoulder parking area would not likely be affected for more than three or four days. Therefore, Alternative 2 would have a less than significant impact on parking supply (Class III). Furthermore, increases in hazards associated with Alternative 2 would be less than significant with implementation of Mitigation Measure 4.15-1 (Class II).

Impact 4.15-ALT2-1: Alternative 2 underground line construction activities could adversely affect traffic conditions in the study area and could result in delays for emergency vehicles on roadways within the study area. ***Less than significant with mitigation*** **(Class II)**

The Alternative 2 subtransmission line would include the construction of an underground line within: Vista Chino (SR 111), from Gene Autry Trail to Sunrise Way; and Sunrise Way, from Vista Chino to near Four Seasons Boulevard. At Four Seasons Boulevard, the underground line would transition to an overhead line and continue north towards the Garnet Substation.

Construction of the underground subtransmission line would require lane and/or road closures along Vista Chino and Sunrise Way, which would have the potential to temporarily impact traffic and circulation within the study area and could result in delays for emergency vehicles. These impacts would be greater than those that would be associated with the proposed Farrell-Garnet subtransmission line. However, implementation of Mitigation Measure 4.15-1 (see above), as well as Mitigation Measure 4.15-ALT2-1 (below), would reduce potential impacts to less than significant.

> **Mitigation Measure 4.15-ALT2-1:** In addition to the requirements included in Mitigation Measure 4.15-1, the Traffic Management and Control Plan shall:
>
> - Include a requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access; and
>
> - Include a circulation and detour plan to minimize impacts to local street circulation when lane and/or road closures are required due to trenching activities.

Significance after Mitigation: Less than Significant.

Impact 4.15-ALT2-2: Trenching activities associated with construction of the underground portion of Alternative 2 could result in roadway damage along Vista Chino and Sunrise Way. *Less than significant with mitigation* (Class II)

Roadway trenching would be required to install the Alternative 2 subtransmission line within Vista Chino and Sunrise Way. Such activities would result in temporary and intermittent damage to roadway surfaces, and therefore, impacts would be potentially significant. However, implementation of Mitigation Measure 4.15-ALT2-2 would reduce such impacts to less than significant by requiring SCE to make necessary repairs in order to restore damaged roadways to pre-construction conditions.

> **Mitigation Measure 4.15-ALT2-2:** In order to reduce potential roadway damage impacts from trenching activities within public roadways, SCE and/or its contractors shall repair any damaged roadway to its original condition immediately after construction has completed. Photo documentation showing roadways prior to and following construction shall be submitted to the CPUC and applicable State and/or local agencies with jurisdiction of the roadways to demonstrate compliance with this measure.

Significance after Mitigation: Less than Significant.

Alternative 3

Similar to the proposed Farrell-Garnet subtransmission line, the Alternative 3 subtransmission line would not cause a long-term increase in traffic, would not result in impacts to air traffic patterns, nor would it conflict with adopted policies and plans promoting alternative transportation (No Impact). Construction activities associated with the underground segment of the Alternative 3 subtransmission line would be more likely to disrupt parking opportunities along road shoulders compared to the proposed Farrell-Garnet subtransmission line; however, underground line construction activities would proceed in a linear fashion and any one road shoulder parking area would not likely be affected for more than three or four days. Therefore, Alternative 3 would have a less than significant impact on parking supply (Class III). Furthermore, increases in hazards associated with Alternative 3 would be less than significant with implementation of Mitigation Measure 4.15-1 (Class II).

Impact 4.15-ALT3-1: Alternative 3 underground line construction activities could adversely affect traffic conditions in the study area and could result in delays for emergency vehicles on roadways within the study area. *Less than significant with mitigation* (Class II)

The Alternative 3 subtransmission line would include the construction of an underground line within: Vista Chino (SR 111), from Gene Autry Trail to Sunrise Way; Sunrise Way, from Vista

Chino to San Rafael Road; San Rafael Road, from Sunrise Way to Indian Canyon Drive; and Indian Canyon Drive, from San Rafael Road to a location approximately 50 feet north of San Rafael Road, where the underground line would transition to an overhead line and continue north towards the Garnet Substation.

Construction of the underground subtransmission line would require lane and/or road closures along Vista Chino, Sunrise Way, San Rafael Road, and Indian Canyon Drive, which would have the potential to temporarily impact traffic and circulation within the study area and could result in delays for emergency vehicles. These impacts would be greater than those that would be associated with the proposed Farrell-Garnet subtransmission line. However, implementation of Mitigation Measures 4.15-1 and Mitigation Measure 4.15-ALT2-1 (see above), would reduce potential impacts to less than significant.

Mitigation Measures: Implement Mitigation Measures 4.15-1 and 4.15-ALT2-1.

Significance after Mitigation: Less than Significant.

Impact 4.15-ALT3-2: Trenching activities associated with construction of the underground portion of Alternative 3 could result in roadway damage along Vista Chino, Sunrise Way, San Rafael Road, and Indian Canyon Drive. ***Less than significant with mitigation*** **(Class II)**

Roadway trenching would be required to install the Alternative 3 subtransmission line within Vista Chino, Sunrise Way, San Rafael Road, and Indian Canyon Drive. Such activities would result in temporary and intermittent damage to roadway surfaces, and therefore, impacts would be potentially significant. However, implementation of Mitigation Measure 4.15-ALT2-2 would reduce such impacts to less than significant by requiring SCE to make necessary repairs in order to restore damaged roadways to pre-construction conditions.

Mitigation Measure: Implement Mitigation Measure 4.15-ALT2-2.

Significance after Mitigation: Less than significant.

Alternative 5

Similar to the proposed Mirage-Santa Rosa subtransmission line, the Alternative 5 subtransmission line would not cause a long-term increase in traffic, would not result in impacts to air traffic patterns, nor would it conflict with adopted policies and plans promoting alternative transportation (No Impact). Construction activities associated with the underground segment of the Alternative 5 subtransmission line would be more likely to disrupt parking opportunities along road shoulders compared to the proposed Mirage-Santa Rosa subtransmission line; however, underground line construction activities would proceed in a linear fashion and any one road shoulder parking area would not likely be affected for more than three or four days.

Therefore, Alternative 5 would have a less than significant impact on parking supply (Class III). Furthermore, increases in hazards associated with Alternative 5 would be less than significant with implementation of Mitigation Measure 4.15-1 (Class II).

Impact 4.15-ALT5-1: Alternative 5 underground line construction activities could adversely affect traffic conditions in the study area and could result in delays for emergency vehicles on roadways within the study area. ***Less than significant with mitigation*** **(Class II)**

The Alternative 5 subtransmission line would include the construction of an underground line within: Ramon Road, from Mirage Substation to Monterey Avenue; Monterey Avenue, from Ramon Road to Varner Road; and Varner Road, from Monterey Avenue to a location near the existing Mirage-Concho 115 kV overhead transmission line, where the underground line would transition to an overhead line, then cross Varner Road, I-10, and the UPRR.

Construction of the underground subtransmission line would require lane and/or road closures along Ramon Road, Monterey Avenue, and Varner Road, which would have the potential to temporarily impact traffic and circulation within the study area and could result in delays for emergency vehicles. These impacts would be greater than those that would be associated with the proposed Mirage-Santa Rosa subtransmission line. However, implementation of Mitigation Measures 4.15-1 and Mitigation Measure 4.15-ALT2-1 (see above), would reduce potential impacts to less than significant.

Mitigation Measures: Implement Mitigation Measures 4.15-1 and 4.15-ALT2-1.

Significance after Mitigation: Less than Significant.

Impact 4.15-ALT5-2: Trenching activities associated with construction of the underground portion of Alternative 5 could result in roadway damage along Ramon Road, Monterey Avenue, and Varner Road. ***Less than significant with mitigation*** **(Class II)**

Roadway trenching would be required to install the Alternative 5 subtransmission line within Ramon Road, Monterey Avenue, and Varner Road. Such activities would result in temporary and intermittent damage to roadway surfaces, and therefore, impacts would be potentially significant. However, implementation of Mitigation Measure 4.15-ALT2-2 would reduce such impacts to less than significant by requiring SCE to make necessary repairs in order to restore damaged roadways to pre-construction conditions.

Mitigation Measure: Implement Mitigation Measure 4.15-ALT2-2.

Significance after Mitigation: Less than Significant.

Alternative 6

Similar to the proposed Farrell-Garnet subtransmission line, the Alternative 6 subtransmission line would not cause a long-term increase in traffic, would not result in impacts to air traffic patterns, nor would it conflict with adopted policies and plans promoting alternative transportation (No Impact). Construction activities associated with the underground segment of the Alternative 6 subtransmission line would be more likely to disrupt parking opportunities along road shoulders compared to the proposed Farrell-Garnet subtransmission line; however, underground line construction activities would proceed in a linear fashion and any one road shoulder parking area would not likely be affected for more than three or four days. Therefore, Alternative 6 would have a less than significant impact on parking supply (Class III). Furthermore, increases in hazards associated with Alternative 6 would be less than significant with implementation of Mitigation Measure 4.15-1 (Class II).

Impact 4.15-ALT6-1: Alternative 6 underground line construction activities could adversely affect traffic conditions in the study area and could result in delays for emergency vehicles on roadways within the study area. ***Less than significant with mitigation*** **(Class II)**

The Alternative 6 subtransmission line would include the construction of an underground line within Vista Chino, from Landau Boulevard to Date Palm Drive, where the underground line would transition to an overhead line and continue north towards the Garnet-Santa Rosa 115 kV ROW.

Construction of the underground subtransmission line would require lane and/or road closures along Vista Chino, which would have the potential to temporarily impact traffic and circulation within the study area and could result in delays for emergency vehicles. These impacts would be greater than those that would be associated with the proposed Farrell-Garnet subtransmission line. However, implementation of Mitigation Measures 4.15-1 and Mitigation Measure 4.15-ALT2-1 (see above), would reduce potential impacts to less than significant.

Mitigation Measures: Implement Mitigation Measures 4.15-1 and 4.15-ALT2-1.

Significance after Mitigation: Less than significant.

Impact 4.15-ALT6-2: Trenching activities associated with construction of the underground portion of Alternative 6 could result in roadway damage along Vista Chino. ***Less than significant with mitigation*** **(Class II)**

Roadway trenching would be required to install the Alternative 6 subtransmission line within Vista Chino. Such activities would result in temporary and intermittent damage to roadway surfaces, and therefore, impacts would be potentially significant. However, implementation of Mitigation Measure 4.15-ALT2-2 would reduce such impacts to less than significant by requiring SCE to make necessary repairs in order to restore damaged roadways to pre-construction conditions.

Mitigation Measure: Implement Mitigation Measure 4.15-ALT2-2.

Significance after Mitigation: Less than Significant.

Alternative 7

Alternative 7 would include the construction of approximately 9.1 miles of a new overhead single-circuit 115 kV subtransmission line between Farrell Substation and the exiting Garnet-Santa Rosa 115 kV ROW. Similar to the proposed Farrell-Garnet subtransmission line, the Alternative 7 subtransmission line would not cause a long-term increase in traffic, would not result in impacts to air traffic patterns, nor would it conflict with adopted policies and plans promoting alternative transportation (No Impact). Construction activities associated with the Alternative 7 subtransmission line would be more likely to disrupt parking opportunities along residential area road shoulders compared to the proposed Farrell-Garnet subtransmission line; however, construction activities in the vicinity of any one road shoulder parking area would not likely be affected for more than one or two days. Therefore, Alternative 7 would have a less than significant impact on parking supply (Class III). Furthermore, increases in hazards associated with Alternative 7 would be less than significant with implementation of Mitigation Measure 4.15-1 (Class II).

This alternative would cross a greater number of roadways compared to the proposed Farrell-Garnet subtransmission line; therefore, impacts to traffic and circulation as well as emergency vehicle access associated with construction of the Alternative 7 subtransmission line would be greater than those associated with construction of the proposed Farrell-Garnet subtransmission line. Nevertheless, impacts would be less than significant with implementation of Mitigation Measure 4.15-1 (Class II).

References – Transportation and Traffic

Caltrans (California Department of Transportation), 2009. Traffic and Vehicle Data Systems Unit 2008, All Traffic Volumes on California State Highways Systems, webpage (http://www.caltrans.ca.gov/hq/traffops/saferesr/trafdata/2008all/r007-10i.htm) accessed November 2, 2009.

Coachella Valley Association of Governmnets (CVAG), 2009. *2009 Traffic Census Program*, website (http://www.cvag.org/Trans/pdffiles/cvagcensus2009.pdf), accessed November 2, 2009.

Coachella Valley Community Trails Alliance, 2009. Coachella Valley Urban Trails and Bikeways Map, webpage (http://www.cvcta.org/urbantrails.htm), accessed November 3, 2009.

City of Cathedral City, 2009. *City of Cathedral City General Plan, Exhibit III-2, Existing Daily Traffic Volumes*, amended June 24, 2009.

City of Palm Springs, 2007a. *City of Palm Springs General Plan*, October 2007.

City of Palm Springs, 2007b. Traffic Counts and Speed Surveys, webpage (http://www.palmsprings-ca.gov/index.aspx?page=250), 2007 roadway segment counts, accessed November 2, 2009.

City of Palm Springs, 2008. Personal Communication with Felipe Primera, City of Palm Springs Engineering Assistant. June 27, 2008.

PSIA (Palm Springs International Airport), 2008. Palm Springs International Airport website (http://www.palmspringsairport.com) accessed June 18, 2008.

Riverside County, 2002. *Final Program Environmental Impact Report for the General Plan, Volume I*, website (http://www.rctlma.org/genplan/default.aspx), last updated 2002.

SunLine (SunLine Transit Agency), 2009. System Map, webpage (http://www.sunline.org/docs/8505892009system_map.pdf), accessed November 3, 2009.

4.16 Utilities and Service Systems

The study area is served by numerous public utility and service systems, including water, sewer, electric, natural gas, and telecommunication lines. Various entities operate these systems and provide services to residents, businesses and other land uses in the vicinity of the study area.

4.16.1 Setting

Water

The Coachella Valley Water District (CVWD) provides domestic water service to much of the Coachella Valley, including parts of the study area. CVWD serves the cities of Palm Desert, Rancho Mirage, Indian Wells, the community of Thousand Palms, as well as parts of the cities of Palm Springs and Cathedral City. Additionally, the Desert Water Agency (DWA) and Mission Springs Water District (MSWD) serve portions of the City of Palm Springs. DWA also provides domestic water service to parts of Cathedral City (City of Cathedral City, 2002; City of Indian Wells, 1996; City of Palm Desert, 2004; City of Palm Springs, 2007; and City of Rancho Mirage, 2005).

Groundwater comprises the majority of the water that the Coachella Valley water agencies provide to their customers in the study area, with the remainder being surface water from mountain streams. The majority of the groundwater is obtained from the 28-million acre-foot Whitewater River Subbasin that underlies the northwest Coachella Valley. To ensure that water is available, the Coachella Valley water agencies rely on imported water from the Colorado River and the State Water Agency to recharge the groundwater basins within the Coachella Valley (City of Palm Springs, 2007).

The CVWD's domestic water system includes more than 100 wells and has nearly 75 enclosed reservoirs (CVWD, 2009). The MSWD's water system includes approximately 239 miles of potable water mains, 14 water wells, and 26 reservoirs, serving an area of approximately 135 square miles (MSWD, 2008). The DWA has a service area of approximately 325 square miles (DWA, 2009).

Sanitary Sewer

The CVWD provides wastewater collection and treatment services for the cities of Palm Desert, Rancho Mirage, Indian Wells, as well as parts of the City of Cathedral City (City of Palm Desert, 2004; City of Rancho Mirage, 2005; City of Indian Wells, 1996; City of Cathedral City, 2002). Wastewater service in the City of Palm Springs is provided through a contract with Veolia Water North America, which allows the City to operate a waste-water treatment plant that provides primary and secondary treatment of wastewater. This water is then delivered to the DWA for tertiary treatment so that water may be recycled for use in irrigation and golf courses (City of Palm Springs, 2007). The community of Thousand Palms is served by both CVWD and private septic systems (City of Palm Desert, 2004).

The CVWD currently operates six wastewater reclamation plants, and has a total capacity to treat more than 31 million gallons of sewage per day. The CVWD currently treats approximately 18 million gallons daily. Several of the CVWD plants are undergoing expansion to handle increased demand as a result of tremendous growth. More than 90 miles of pipeline are used to collect raw sewage and transport it to the closest treatment facility (CVWD, 2009). In the study area, CVWD and DWA transport effluent via sewer lines to the Cook Street wastewater treatment plant in the City of Palm Desert (Water Reclamation Plant No. 10).

Effluent in the City of Palm Springs is transported to a City-owned 10.9 million gallon per day (mgd) trickling filter wastewater treatment plant. The wastewater system is comprised of five pump stations, 225 miles of sewer collection pipelines, six percolation ponds, and a biosolids disposal program. The treatment plant currently accommodates approximately 6.5 mgd of sewage flow (City of Palm Springs, 2007).

Electricity and Natural Gas

Southern California Edison (SCE) provides electrical service to residential and non-residential customers within most of Coachella Valley. The Imperial Irrigation District (IID) also provides electric service within the area, including portions of the community of Thousand Palms and the City of Indian Wells. Natural gas service in the study area is provided by the Southern California Gas Company (SCGC).

Solid Waste and Recycling Service

Solid waste collection services for collection and disposal of waste from residential and nonresidential areas in the study area are provided by two entities: Burrtec Waste and Recycling Services and Palm Springs Disposal Services. Burrtec Waste and Recycling Services provides service to the cities of Cathedral City, Indian Wells, Palm Desert, Rancho Mirage, as well as to areas of unincorporated Riverside County, including the community of Thousand Palms. In the City of Palm Springs, solid waste collection and disposal is provided by Palm Springs Disposal Services.

The Edom Hill Transfer Station, located in the City of Cathedral City, accepts solid waste from the study area. The facility accepts common construction waste; however, special accommodations for hazardous materials must be arranged with Burrtec Waste and Recycling Services (the operator of the transfer station). The Edom Hill Transfer Station is permitted to receive 2,600 tons of waste per day (CIWMB, 2008).

From Edom Hill Transfer Station, waste is trucked to several landfills, with a majority of the waste from the study area transported to one of three landfills, including the Badlands Landfill in the City of Moreno Valley, the Lamb Canyon Sanitary Landfill in the City of Beaumont, and the El Sobrante Landfill in the City of Corona, all of which are located within Riverside County. Table 4.16-1 provides the permitted maximum disposal allowed per day, the total estimated permitted capacity, and the remaining estimated capacity for the landfills.

TABLE 4.16-1
INFORMATION ON LANDFILLS SERVING THE STUDY AREA

Landfill	Closure Date	Permitted Maximum Disposal Per Day	Total Estimated Permitted Capacity	Total Estimated Capacity Used	Remaining Estimated Capacity
Badlands	1/1/2016	4,000 tons per day	30,386,332 cy	8,520,240 cy (28%)	21,866,092 cy (72%)
Lamb Canyon Sanitary	1/1/2023	3,000 tons per day	34,292,000 cy	13,383,829 cy (39%)	20,908,171 cy (61%)
El Sobrante	1/1/2030	10,000 tons per day	184,930,000 cy	66,356,460 cy (35.9%)	118,573, 540 cy (64.1%)

cy = cubic yards

SOURCE: CIWMB, 2008.

Telephone and Cable Television Service

Verizon (formerly GTE) provides local residential and business telephone services and Time Warner provides cable services in the Coachella Valley (City of Palm Springs, 2007; City of Palm Desert, 2004; and City of Rancho Mirage, 2005).

Regulatory Context

State

Protection of Underground Infrastructure

Section 1, Chapter 3.1 "Protection of Underground Infrastructure," Article 2 of California Government Code 4216 requires that utility operators and other excavators must contact a regional notification center at least two days prior to excavation of any subsurface installations. The notification center for southern California is Underground Service Alert. Any utility provider seeking to begin an excavation project must call Underground Service Alert's toll-free hotline. In turn, Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of excavation. The excavator is required to probe and expose the underground facilities by hand prior to using power equipment.

Assembly Bill 939

Assembly Bill 939 (AB 939), enacted in 1989 and known as the Integrated Waste Management Act, requires each city and/or county to prepare a Source Reduction and Recycling Element (SRRE) to demonstrate reduction in the amount of waste being disposed to landfills, with diversion goals of 50 percent by the year 2000. Table 4.16-2 provides the diversion rates between 2004 and 2006 for the cities within the study area, as well as for the unincorporated areas of Riverside County.

TABLE 4.16-2
DIVERSION RATES (AS A PERCENT OF THE TOTAL WASTE STREAM)

	2004	2005	2006
Cathedral City	54	54	57
Indian Wells	60	65	66
Palm Desert	63	67	69
Palm Springs	60	59	67
Rancho Mirage	55	58	64
Riverside County (Unincorporated)	54	54	53

SOURCE: CIWMB, 2009b.

Local

Riverside County General Plan

The Circulation Element of the Riverside County General Plan includes the following policy that pertains to utilities and service systems (Riverside County, 2003):

> *Policy C 25.2:* Locate new and relocated utilities underground when possible. All remaining utilities shall be located or screened in a manner that minimizes their visibility by the public.

City of Palm Springs General Plan

The Circulation Element of the City of Palm Springs General Plan includes the following goal and policy that may be applicable to the Proposed Project and alternatives (City of Palm Springs, 2007):

> *Goal CR10*: Provide adequate and safe utility systems and facilities to support the City's existing and proposed land uses.
>
> *Policy CR10.1:* Require utility improvements where existing systems are deficient.

City of Cathedral City General Plan

The Water, Sewer, and Utilities Element of the City of Cathedral City General Plan contains the following policy that may be applicable to the Proposed Project and alternatives (City of Cathedral City, 2002):

> *Policy 7*: Utility lines shall be undergrounded, to the greatest extent practical. Those on major streets and scenic roadways shall have primary consideration for undergrounding.

City of Rancho Mirage General Plan

The Water, Sewer, and Utilities Element of the City of Rancho Mirage General Plan contains the following goal and policies that may be applicable to the Proposed Project and alternatives (City of Rancho Mirage, 1997):

Goal 5: All utility lines placed underground.

Policy 10: Major utility facilities shall be sited to assure minimal impacts to the environment and the community, and minimize potential environmental hazards.

Policy 11: The City shall encourage the coordinated and shared use of underground transmission corridors as a means of minimizing repeated exactions into the streets.

City of Rancho Mirage Construction and Demolition Ordinance

The City of Rancho Mirage's Construction and Demolition (C&D) ordinance applies to projects 500 square feet or larger, except roofing projects that do not include tear-off of existing roof or some portion thereof. Prior to commencement of a covered project, the applicant must submit a completed C&D debris plan showing how waste generated from the project shall be diverted from landfills to the maximum extent feasible. Throughout the duration of the project, the applicant is required to submit bi-weekly updates demonstrating compliance with the C&D debris plan (CIWMB, 2009a).

City of Palm Desert General Plan

The Water, Sewer, and Utilities Element of the City of Palm Desert General Plan includes the following policies, and programs that may be applicable to the Proposed Project and alternatives (City of Palm Desert, 2004):

Policy 4: The City shall make every effort to assure and shall assist in facilitating the timely and cost-effective expansion of services that complement community development.

Policy 5: The City shall confer and coordinate with utility and service providers in planning, designing, and siting of distribution and supporting facilities to assure the timely expansion of facilities in a manner which minimizes environmental impacts and disturbance of existing infrastructure.

Program 5.A: The City shall confer and coordinate with SCE, SCGC, CVWD and other installers of utility infrastructure to monitor all excavation work that may threaten existing underground utilities. Construction activities that may inhibit access to existing facilities shall be required to move these facilities in accordance with applicable utility standards.

Program 5.B: The City shall encourage the consolidation of underground utility lines and other subsurface transmission facilities as a means of limiting the impact of these facilities on the disruption of traffic and roadways.

City of Indian Wells General Plan

The Land Use Element of the City of Indian Wells General Plan includes the following policy that may be applicable to the Proposed Project and alternatives (City of Indian Wells, 1996):

Policy IIA3.5: Coordinate the planning of future public services and facilities with adjoining cities and County service providers to ensure the efficient delivery of services.

City of Indian Wells Construction and Demolition Ordinance

The City of Indian Well's C&D ordinance applies to all new structures, demolition projects, and residential additions of 2,000 square feet or more. The ordinance requires all applicable projects to divert at least 50 percent of all recyclable, reusable, and salvageable debris or materials from landfills. Applicants must submit a waste management plan to the City prior to issuance of building permits for any covered project. Applicants are also required to submit semi-monthly updates showing the amount of waste diverted and disposed. No later than 30 days from completion of a project, the applicant must submit a compliance reporting form to the City (CIWMB, 2009a).

4.16.2 Significance Criteria

Based on criteria in Appendix G of the CEQA Guidelines, a project would be considered to have a significant effect on the environment if it would:

a) Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board;

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

d) Require new or expanded water supply resources or entitlements;

e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

f) Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs;

g) Conflict with federal, state, and local statutes and regulations related to solid waste; or

h) Contact and/or disturb underground utility lines and/or facilities during construction activities.

4.16.3 Applicant Proposed Measures

The following applicant proposed measures (APMs) would be implemented in association with the proposed Devers-Coachella Valley 220 kV Transmission Line Loop-In ct. These APMs address potential construction issues with the three high-pressure, natural-gas pipelines owned and operated by SCGC.

> **APM PUSVC-01.** Work Around High Pressure Gas Lines. No mechanical equipment will be permitted to operate within 3 feet of the Southern California Gas Company high-pressure pipelines, and any closer work must be done by hand.

APM PUSVC-02. Monitoring by the Southern California Gas Company. A representative of the Southern California Gas Company must observe the excavation around or near their facilities to insure protection and to record pertinent data necessary for their operations.

4.16.4 Impacts and Mitigation Measures

This section presents an analysis of the potential utility service impacts that would be associated with the construction, operation, and maintenance of the facilities (i.e., subtransmission and transmission lines and substation modifications) associated with the Proposed Project.

a) Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board.

The Proposed Project would not conflict with wastewater treatment requirements of the Colorado River Basin Regional Water Quality Control Board (CRRWQCB). Portable toilets would be utilized only during construction (a one-time limited timeframe) and waste would be disposed of according to required regulations. No additional wastewater would be generated during operation of the Proposed Project (No Impact). See also, e) below.

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b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The Proposed Project would require water use during construction, primarily for periodic dust control on access roads and during earthmoving activities. However, this water use would be temporary in nature and would not generate wastewater that would require treatment or disposal. Operation of the Proposed Project would not require the use of water, and would therefore not create any demand for wastewater treatment or disposal. Consequently, the Proposed Project would not require or result in the construction of new or expanded water or wastewater treatment plant facilities (No Impact). See also, d) and e) below.

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c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The Proposed Project would introduce new impervious surfaces in the Coachella Valley through the construction of new access roads, a substation driveway, new lattice tower and pole foundations, and new foundations at substations to support new electrical components. These project components would require soil compaction and installation of concrete foundations. However, since many poles installed would replace existing poles and would be directly imbedded, the net increase in impervious surfaces associated with pole foundations would be inconsequential. Also, the surface area of the proposed access roads, driveways, and electrical component foundations would result in a small and dispersed increase in impervious areas.

Since the Proposed Project would not substantially increase the amount of impervious surfaces, it would not create a significant change in the amount or location of additional storm runoff water. Therefore, the Proposed Project would not require or result in the construction of a new or expanded storm drainage facility (No Impact).

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d) Require new or expanded water supply resources or entitlements.

Operation of the Proposed Project would not require the use of water. The primary use of water during construction of the Proposed Project would be for dust suppression on access roads and active ground disturbance sites. The water that would be required for construction would be trucked in from off-site. A small amount of water would also be required to be on site for fire suppression. The work crew would bring in drinking water from off-site. Water used during the construction period would be available from existing municipal water sources and would not require local water providers to obtain additional water entitlements. The amount of water required for construction of the Proposed Project would be negligible, and would therefore not require new or expanded water supply resources or entitlements (No Impact).

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e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

As described in d), the primary use of water during construction of the Proposed Project would be for dust suppression on access roads. Disposal would not be required because the water used during dust suppression activities would be minimal and consequently this water would evaporate or be absorbed into the ground. In addition, construction crews would use portable sanitation facilities (portable toilets), generating relatively small volumes of wastewater for a limited time during the construction phase. Sanitation waste would be disposed of according to sanitation waste management practices. No other sources of wastewater are anticipated during the Proposed Project construction activities, and operation of the Proposed Project would not require the use of water. The negligible amount of water used during construction would not affect the wastewater treatment facilities' abilities to serve the Proposed Project's projected demand in addition to the provider's existing commitments (No Impact).

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f) Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs.

Operation of the Proposed Project would not generate solid waste and would therefore not affect existing landfill capacities. Construction of the Proposed Project would generate various waste materials, largely in the form of soil and vegetation, and scrap metal/wood from the replacement of existing towers, poles, and substation modifications. This impact would be short-term and of short duration.

As described in Chapter 2, *Project Description*, the Proposed Project would require the removal and disposal of approximately 167 existing wood poles. SCE would first make the poles available for reuse, or if demand does not exist, return them to the manufacturer. If the poles are not reusable and cannot be returned to the manufacturer, they would be disposed of at a Class I hazardous-waste landfill.

In addition to the removal of wood poles, the Proposed Project would also require the removal of four lattice steel towers (LSTs), conductor wiring, and associated metal hardware. The LSTs, conductor wiring, and hardware would be transported by truck to a staging yard where it would be prepared for recycling. SCE would recycle 100 percent of the steel from the LSTs (e.g., towers, nuts, bolts, and washers), 100 percent of the conductor wire (e.g., 1033 kcmil ACSR, 605 kcmil ACSR), and 100 percent of the hardware (e.g., shackles, clevises, yoke plates, links, and/or other connectors used to support conductors). Recyclable or salvageable items would be handled by construction crews processing those materials into roll-off boxes. Salvageable items (e.g., conductor, steel, hardware) would then be received, sorted, and baled at a commercial metal-recycling facility in Los Angeles, and then sold on the open market.

Soil and vegetative matter from excavations and land-clearing for new tower foundations would be screened and separated for use as backfill materials at the project sites to the maximum extent possible. Soils and vegetative matter unsuitable for backfill use would be disposed of at appropriate disposal sites.

All waste materials that could not be reused or recycled would be categorized by SCE in order to guarantee proper final disposal. Examples of disposable wastes include wood from cribbing and packing materials, soil and vegetative matter from excavations and land-clearing activity, and miscellaneous refuse generated during construction. All construction debris would be placed in appropriate onsite containers and periodically disposed of in accordance with all applicable regulations. Non-hazardous construction materials that cannot be reused or recycled would likely be acceptable for disposal at municipal county landfills. Any hazardous material would be recycled, treated, and/or disposed of in accordance with federal, State, and local laws (see Section 4.7, *Hazards and Hazardous Materials* for additional information).

As identified in Table 4.16-1, the project area is served by a variety of waste management agencies and landfills. Each of the three landfills serving the study area has more than 60 percent capacity available. Due to the number and available capacity of the landfills serving the project area, and the fact that a large portion of the materials that would be removed would be recycled, it can be assumed that the solid waste generated from construction of the Proposed Project could be accommodated by the existing landfills in the study area (No Impact).

g) Conflict with federal, state, and local statutes and regulations related to solid waste.

As discussed above, the Proposed Project would generate waste during construction. Construction waste would include the one time disposal of material that could not be recycled or reused. Subtransmission and transmission line operation and maintenance are not anticipated to produce additional solid waste. The construction waste generated would be minimal and SCE would dispose of the waste in an appropriate landfill. As discussed above, landfills within the study area have sufficient capacity to accept anticipated project waste.

Riverside County has an adopted a Countywide SRRE that establishes goals, programs, and methodologies for achieving 50 percent diversion of solid waste from landfills. Unincorporated Riverside County's diversion rate between 2004 and 2006 ranged between 53 and 54 percent, which meets the requirement of AB 939 (CIWMB, 2009b). Additionally, the diversion rates of the cities within the study area also met the requirements of AB 939 between 2004 and 2006 (see Table 4.16-2, above). Each of the waste management agencies that serve the study area provide recycling services to both residential and non-residential customers.

SCE proposes to reduce Proposed Project construction material and treated wood pole waste through various measures. As previously described, SCE would recycle or savage construction waste material to the greatest extent possible. Recyclable or salvageable items (e.g., conductor, steel, hardware) would be received, sorted, and baled at a commercial metal-recycling facility in Los Angeles, and then sold on the open market. Items to be recycled include 100 percent of the steel from LSTs, 100 percent of the conductor wire, and 100 percent of the hardware. Thus, the Proposed Project would not conflict with statutes and regulations relating to solid waste and recycling (No Impact).

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h) Contact and/or disturb underground utility lines and/or facilities during construction activities.

Impact 4.16-1: Underground utility lines and/or facilities could be disturbed during Proposed Project construction activities. ***Less than significant*** **(Class III)**

Construction activities could inadvertently contact underground facilities during pole excavation, pole installation, and/or grading of work areas for the Proposed Project, possibly leading to short-term utility service interruptions. While Proposed Project components would occur within existing SCE rights-of-way and franchise locations, co-located utilities, including natural gas, water, or sewer pipelines, may be located within the utility easement underneath the existing subtransmission and transmission lines.

Prior to construction, surveys would be conducted to locate all underground and overhead utilities in the project area. As described above, SCE is required by State law to contact Underground Service Alert at least two working days prior to initiation of construction activities with ground disturbance. Underground Service Alert verifies the location of all existing underground facilities

and alerts the other utilities to mark their facilities in the area (within 1,000 feet) of anticipated excavation activities. SCE is also required to manually (by hand) probe and expose any existing buried utilities at the Proposed Project alignments and site prior to any powered-equipment drilling or excavation. After probing within the alignments for existing utilities, exact placement of the poles and pole/tower foundations would be determined so that they would not conflict with other co-located utilities.

While most of the Proposed Project components would not be located in proximity to known utility lines, construction that would be associated with the proposed Devers-Coachella Valley 220 kV Loop-In would be located in the proximity of three SCGC high-pressure, natural gas pipelines (30- and 36-inch). In addition to contacting Underground Service Alert and manually probing for existing buried utilities prior to any powered-equipment drilling or excavation, SCE has committed to implementing two APMs (PUSVC-01 and PUSVC-02) to reduce the potential for impacts to occur associated with these natural gas pipelines (see Section 4.16.3 above). As such, SCE would work around high pressure gas lines and a monitor from SCGC would be present during excavation near the pipelines to ensure that the facilities are not impacted. Therefore, impacts related to potential underground utility service interruptions would be less than significant.

Mitigation: None required.

4.16.5 Cumulative Impacts

Construction, operation, and maintenance activities that would be associated with the Proposed Project would result in no impacts that would affect the ability of Riverside County, or the cities of Palm Springs, Palm Desert, Rancho Mirage, Cathedral City, and Indian Wells, and other service providers to effectively deliver public water supply, sanitary sewer (wastewater), solid waste, and other utility services in the study area. Therefore, the Proposed Project would not have any contribution to cumulative impacts to those services (No Impact). The past, present, and reasonably foreseeable future projects described in Section 3.6, *Cumulative Projects*, include several development projects planned in the vicinity of the study area that may contact and/or disturb underground utility lines and/or facilities during construction activities. However, the Proposed Project's potential to adversely impact existing underground utilities would be substantially reduced by contacting Underground Service Alert, manually probing for existing buried utilities prior to any powered-equipment drilling or excavation, and implementing two APMs (PUSVC-01 and PUSVC-02). Furthermore, construction activities associated with the other cumulative projects in the area would be required to comply with Article 2 of California Government Code 4216 (i.e., contact Underground Service Alert and manually probe for existing buried utilities) to avoid impacting underground utilities. Therefore, the Proposed Project would not result in a cumulatively considerable impact to existing underground utilities (Class III).

4.16.6 Alternatives

No Project Alternative

For the purposes of this analysis, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. Given the highly speculative nature of the No Project Alternative assumptions, this analysis is qualitative.

Under the No Project Alternative, none of the facilities or infrastructure upgrades associated with the Proposed Project evaluated in this EIR would be constructed by SCE. However, SCE would be required to design a new project in order to satisfy the objectives of the Proposed Project. Any project that would satisfy the objectives of the Proposed Project would likely result in similar water, wastewater, storm drainage, and solid waste impacts to those associated with the Proposed Project assuming that similar construction methods would be implemented (No Impact). Construction would result in similar potential impacts to contact or disrupt underground utilities; however, contacting the Underground Service Alert and manually probing for existing buried utilities would reduce impacts to less than significant (Class III).

Alternative 2

Construction, operation, and maintenance impacts under this alternative would be similar to those identified for the proposed Farrell-Garnet subtransmission line, which were determined to be less than significant, requiring no mitigation. Construction of the Alternative 2 subtransmission line would involve similar construction methods as those described for the proposed Farrell-Garnet subtransmission line. As such, the demands placed on local water, wastewater, storm drainage, and solid waste service providers as a result of this alternative would be similar to that discussed above in Section 4.15.4. The Alternative 2 subtransmission line would require the excavation of an approximately three-mile trench, and would thus have the potential to generate more soil waste than construction of the proposed Farrell-Garnet subtransmission line. However, no part of construction or operation of this alternative would use water or generate wastewater or solid waste in amounts exceeding the capacity of local facilities serving the area. Impacts due to demands on water, wastewater, storm drainage, and solid waste facilities would be similar to the Proposed Project (No Impact).

Construction of the Alternative 2 subtransmission line would result in higher potential to contact or disrupt underground utility infrastructure due to trenching requirements associated with the underground segment. Actions taken to avoid utilities identified in accordance with Article 2 of California Government Code 4216 (i.e., contact Underground Service Alert and manually probe for existing buried utilities within the ROW) would ensure that construction activities would not result

in reductions or interruptions of existing utility systems or cause a collocation accident. Therefore, this alternative would result in less than significant impacts to utility services (Class III).

Alternative 3

Construction, operation, and maintenance impacts under this alternative would be similar to those identified for the proposed Farrell-Garnet subtransmission line, which were determined to be less than significant, requiring no mitigation. Construction of the Alternative 3 subtransmission line would involve similar construction methods as those described for the proposed Farrell-Garnet subtransmission line. As such, the demands placed on local water, wastewater, storm drainage, and solid waste service providers as a result of this alternative would be similar to that discussed above in Section 4.15.4. Construction of the Alternative 3 subtransmission line would require the excavation of an approximately 3.6-mile trench, and would thus have the potential to generate more soil waste than construction of the proposed Farrell-Garnet subtransmission line. However, no part of construction or operation of this alternative would use water or generate wastewater or solid waste in amounts exceeding the capacity of local facilities serving the area. Impacts due to demands on water, wastewater, storm drainage, and solid waste facilities would be similar to the Proposed Project (No Impact).

Construction of the Alternative 3 subtransmission line would result in slightly higher potential to contact or disrupt underground utility infrastructure due to trenching requirements associated with the underground segment. Actions taken to avoid utilities identified in accordance with Article 2 of California Government Code 4216 (i.e., contact Underground Service Alert and manually probe for existing buried utilities within the ROW) would ensure that construction activities would not result in reductions or interruptions of existing utility systems or cause a collocation accident. Therefore, this alternative would result in less than significant impacts to utility services (Class III).

Alternative 5

Construction, operation, and maintenance impacts under this alternative would be similar to those identified for the proposed Mirage-Santa Rosa subtransmission line, which were determined to be less than significant, requiring no mitigation. Construction of the Alternative 5 subtransmission line would involve similar construction methods as those described for the proposed Mirage-Santa Rosa subtransmission line. As such, the demands placed on local water, wastewater, storm drainage, and solid waste service providers as a result of this alternative would be similar to that discussed above in Section 4.15.4. Construction of the Alternative 5 subtransmission line would require the excavation of an approximately three-mile trench, and would thus have the potential to generate more soil waste than construction of the proposed Mirage-Santa Rosa subtransmission line. However, no part of construction or operation of this alternative would use water or generate wastewater or solid waste in amounts exceeding the capacity of local facilities that serve the area.

Impacts due to demands on water, wastewater, storm drainage, and solid waste facilities would be similar to the Proposed Project (No Impact).

Construction of the Alternative 5 subtransmission line would result in slightly higher potential to contact or disrupt underground utility infrastructure due to trenching requirements associated with the underground segment. Actions taken to avoid utilities identified in accordance with Article 2 of California Government Code 4216 (i.e., contact Underground Service Alert and manually probe for existing buried utilities within the ROW) would ensure that construction activities would not result in reductions or interruptions of existing utility systems or cause a collocation accident. Therefore, this alternative would result in less than significant impacts to utility services (Class III).

Alternative 6

Construction, operation, and maintenance impacts under this alternative would be similar to those identified for the proposed Farrell-Garnet subtransmission line, which were determined to be less than significant, requiring no mitigation. Construction of the Alternative 6 subtransmission line would involve similar construction methods as those described for the proposed Farrell-Garnet subtransmission line. As such, the demands placed on local water, wastewater, storm drainage, and solid waste service providers as a result of this alternative would be similar to that discussed above in Section 4.15.4. Construction of the Alternative 6 subtransmission line would require the excavation of an approximately one-mile trench, and would thus have the potential to generate more soil waste than the proposed Farrell-Garnet subtransmission line. However, no part of construction or operation of this alternative would use water or generate wastewater or solid waste in amounts exceeding the capacity of local facilities serving the area. Impacts due to demands on water, wastewater, storm drainage, and solid waste facilities would be similar to the Proposed Project (No Impact).

Construction of the Alternative 6 subtransmission line would result in slightly higher potential to contact or disrupt underground utility infrastructure due to trenching requirements associated with the underground segment. Actions taken to avoid utilities identified in accordance with Article 2 of California Government Code 4216 (i.e., contact Underground Service Alert and manually probe for existing buried utilities within the ROW) would ensure that construction activities would not result in reductions or interruptions of existing utility systems or cause a collocation accident. Therefore, this alternative would result in less than significant impacts to utility services (Class III).

Alternative 7

Construction, operation, and maintenance impacts under this alternative would be similar to those identified for the proposed Farrell-Garnet subtransmission line, which were determined to be less than significant, requiring no mitigation. Construction of the Alternative 7 subtransmission line would involve similar construction methods as those described for the proposed Farrell-Garnet

subtransmission line. As such, the demands placed on local water, wastewater, storm drainage, and solid waste service providers as a result of this alternative would be similar to that discussed above in Section 4.15.4. Construction of the Alternative 7 subtransmission line would include a greater amount of pole replacement and earth disturbing activities and would therefore have the potential to generate more waste than the proposed Farrell-Garnet subtransmission line. However, no part of construction or operation of this alternative would use water or generate wastewater or solid waste in amounts exceeding the capacity of local facilities that serve the area. Impacts due to demands on water, wastewater, storm drainage, and solid waste facilities would be similar to the Proposed Project (No Impact).

Construction of the Alternative 7 subtransmission line would result in similar impacts to the proposed Farrell-Garnet subtransmission line with respect to contacting or disrupting underground utility infrastructure. Actions taken to avoid utilities identified in accordance with Article 2 of California Government Code 4216 (i.e., contact Underground Service Alert and manually probe for existing buried utilities within the ROW) would ensure that construction activities would not result in reductions or interruptions of existing utility systems or cause a collocation accident. Therefore, this alternative would result in less than significant impacts to utility services (Class III).

References – Utilities and Service Systems

California Integrated Waste Management Board (CIWMB), 2008. *Jurisdiction Profiles.* Website (www.ciwmb.ca.gov) accessed on June 25, 2008.

CIWMB, 2009a. *Jurisdictions With Construction and Demolition Ordinances*, website (http://www.ciwmb.ca.gov/LGCENTRAL/Summaries/33/JurisCnD.htm) accessed on November 11, 2009.

CIWMB, 2009b. *Jurisdiction Diversion/Disposal Rate Summary*, website (http://www.ciwmb.ca.gov/LGTools/MARS/DRMCMain.asp) accessed on November 12, 2009.

City of Cathedral City, 2002. *City of Cathedral City General Plan.* Adopted July 31, 2002.

City of Indian Wells, 1996. *City of Indian Wells General Plan.* Adopted February 1, 1996.

City of Palm Desert, 2004. *City of Palm Desert General Plan*. Adopted March 2004.

City of Palm Springs, 2007. *City of Palm Springs 2007 General Plan*. Adopted October 2007.

City of Rancho Mirage, 2005. *City of Rancho Mirage General Plan.* Adopted November 2005.

Coachella Valley Water District (CVWD), 2009. *Water and the Coachella Valley*, website (http://www.cvwd.org/about/waterandcv.php#domestic), accessed October 14, 2009.

Desert Water Authority (DWA), 2009. Sources of Supply, website (http://www.dwa.org/water_info/w_sources_supply.aspx), accessed November 11, 2009.

Mission Springs Water District (MSWD), 2008. MSWD at a Glance website (https://www.mswd.org/ataglance.aspx) accessed on November 10, 2009, data current as of December 2008.

Riverside County, 2003. *Riverside County General Plan.* Adopted October 7, 2003. Website (http://www.rctlma.org/generalplan/index.html) accessed June 2008.

CHAPTER 5
Comparison of Alternatives

This section summarizes and compares the environmental advantages and disadvantages of the Proposed Project and the alternatives evaluated in this EIR. This comparison is based on the assessment of environmental impacts of the Proposed Project and each alternative, as identified in Sections 4.1 through 4.16. Chapter 2 introduces and describes the Proposed Project. Chapter 3 introduces and describes the alternatives considered in this EIR.

Section 5.1 describes the methodology used for comparing alternatives. Section 5.2 summarizes the environmental impacts of the Proposed Project and the alternatives. Section 5.3 defines the Environmentally Superior Alternative, based on comparison of each alternative with the Proposed Project. Section 5.4 presents a comparison of the No Project Alternative with the alternative that is determined in Section 5.3 to be environmentally superior.

5.1 Comparison Methodology

CEQA does not provide specific direction regarding the methodology of alternatives comparison. Each project must be evaluated for the issues and impacts that are most important; this will vary depending on the project type and the environmental setting. Issue areas that are generally given more weight in comparing alternatives are those with long-term impacts (e.g., visual impacts and permanent loss of habitat or land use conflicts). Impacts associated with construction (i.e., temporary or short-term) or those that are easily mitigable to less than significant levels are generally considered to be less important.

This comparison is designed to satisfy the requirements of CEQA Guidelines Section 15126.6[d], Evaluation of Alternatives, which states that:

> *"The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the proposed project as proposed."*

If the Environmentally Superior Alternative is the No Project Alternative, CEQA requires identification of an Environmentally Superior Alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

The following methodology was used to compare alternatives in this EIR:

Step 1: **Identification of Alternatives.** An alternatives screening process (described in Chapter 3) was used to identify approximately 12 alternatives to the Proposed Project. That screening process identified five alternatives for detailed EIR analysis. Each of the alternatives consists of alignment variations. A No Project Alternative was also identified. No other feasible alternatives meeting the basic project objectives were identified that would lessen or alleviate significant impacts.

Step 2: **Determination of Environmental Impacts.** The environmental impacts of the Proposed Project and alternatives are identified in Sections 4.1 through 4.16, including the potential impacts of construction and operation.

Step 3: **Comparison of Proposed Project with Alternatives.** The environmental impacts of the Proposed Project were compared to those of each alternative to determine the Environmentally Superior Alternative. The Environmentally Superior Alternative was then compared to the No Project Alternative.

Although this comparison focuses on the 16 issue areas (described in Sections 4.1 through 4.16), determining an Environmentally Superior Alternative is difficult because of the many factors that must be balanced. Although this EIR identifies an Environmentally Superior Alternative, it is possible that the Commission could choose to balance the importance of each impact area differently and reach a different conclusion.

5.2 Evaluation of Project Alternatives

Five alternatives in addition to the No Project Alternative were identified for evaluation in this EIR. This section compares the potential environmental impacts for the Proposed Project and five alternatives. A detailed analysis of environmental impacts and mitigation for all project alternatives is provided in Sections 4.1 through 4.16. The following discussion is organized based on level of impacts as defined by CEQA, first by significant unmitigible (Class I) impacts, and secondly less than significant with mitigation (Class II) and less than significant with no mitigation required (Class III) impacts.

There would be significant unmitigable (Class I) impacts on air quality resources during construction under the Proposed Project and each alternative (Table 5-1).

In addition to significant unmitigable impacts described above, there are several differentiating impacts that with mitigation would be less than significant. It should be noted that Alternatives 2, 3, 6, and 7 are compared to each other and to the Farrell-Garnet subtransmission line portion of the Proposed Project, and Alternative 5 is compared to the Mirage-Santa Rosa subtransmission line portion of the Proposed Project. Table 5-2 provides a comparison of potential impacts by alternative for each resource category.

TABLE 5-1
SUMMARY OF SIGNIFICANT UNMITIGABLE (CLASS I) ENVIRONMENTAL IMPACTS OF THE DEVERS-MIRAGE 115 kV SUBTRANSMISSION SYSTEM SPLIT PROJECT AND ALTERNATIVES

Alternative	Significant (Class I) Impacts
Proposed Project	The Proposed Project would result in temporary significant unmitigable impacts to regional and local air quality during construction activities.
Class I Impacts Eliminated or Created by Alternatives	
Alternative 2	Same significant unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to trenching requirements for the approximately three-mile long underground segment.
Alternative 3	Same significant unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to trenching requirements for the approximately 3.6-mile long underground segment.
Alternative 5	Same significant unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to trenching requirements for the approximately three-mile long underground segment.
Alternative 6	Same significant unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to trenching requirements for the approximately one-mile long underground segment.
Alternative 7	Same significant unmitigable impacts to air quality during construction. Impacts may be slightly more adverse due to greater length of subtransmission line construction required under this alternative.

5.3 Environmentally Superior Alternative

As discussed in the previous section, the Proposed Project and all five alternatives would have significant unmitigable impacts on air quality during construction. The extent of the unmitigable impacts on air quality varies slightly by alternative but could not be mitigated to less than significant levels for the Proposed Project or any alternative. Consequently, the selection of an environmentally superior alternative is based on differences in intensity and type of impacts that would be less than significant with mitigation (Table 5-2). Based on these differences the identified environmentally superior alternative for the Farrell-Garnett study area is Alternative 3 and the identified environmentally superior alternative for the Mirage-Santa Rosa study area is Alternative 5.

All five alternatives studied in this EIR were variations of alignments that would use existing ROW. The alternatives studied would substitute one component of the Proposed Project (i.e., Alternatives 2, 3, 6, or 7 would be used in lieu of the proposed Farrell-Garnet 115 kV subtransmission line and Alternative 5 would be used in lieu of the proposed Mirage-Santa Rosa 115 kV subtransmission line). For a number of resources, there are no material environmental impact differences between the Proposed Project and alternatives including: agricultural resources; air quality; geology and soils; hazards and hazardous materials; hydrology and water quality; land use, planning, and policies; mineral resources, noise; population and housing; public services; recreation; and utilities and service systems.

TABLE 5-2
DEVERS-MIRAGE 115kV SUBTRANSMISSION SYSTEM SPLIT PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Resource Area	Proposed Project	Alternative 2	Alternative 3	Alternative 5	Alternative 6	Alternative 7
Aesthetics	Impacts determined to be Class II and Class III. The Farrell-Garnet line would include 1.5 miles of overhead line and the Mirage-Santa Rosa line would include 5.8 miles of overhead line. **The proposed Mirage-Santa Rosa line would have more of an impact on aesthetics than Alternative 5.**	Impact levels would be similar to the Proposed Project. However, Alternative 2 would result in 2.8 miles less overhead line than the proposed Farrell-Garnet line.	Impact levels would be similar to the Proposed Project. However, Alternative 3 would result in 2.9 miles less overhead line than the proposed Farrell-Garnet line. **Least impact on aesthetics for the Farrell-Garnet study area.**	Impact levels associated with the riser pole would be similar to the Proposed Project. However, Alternative 5 would be constructed underground with the exception of the I-10/UPRR crossing. **Less of an impact on aesthetics than the proposed Mirage-Santa Rosa line.**	Impact levels would be similar to the Proposed Project. However, Alternative 6 would result in 2.6 miles less overhead line than the proposed Farrell-Garnet line.	Impact levels would be similar to the Proposed Project. However, Alternative 7 would result in 3.3 miles more of overhead line than the proposed Farrell-Garnet line. **Most impact on aesthetics for the Farrell-Garnet study area.**
Agriculture Resources	Impacts determined to be Class III. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**
Air Quality	Would result in temporary significant unmitigable air quality impacts during construction. Operational impacts would be Class III and GHG impacts would be Class II. **No Preference**	Impacts would be similar to Proposed Project; however, construction emissions would be slightly higher due to trenching required for the underground segment. **No Preference**	Impacts would be similar to Proposed Project; however, construction emissions would be slightly higher due to trenching required for the underground segment. **No Preference**	Impacts would be similar to Proposed Project; however, construction emissions would be higher due to trenching required for the underground segment. **No Preference**	Impacts would be similar to Proposed Project. **No Preference**	Impacts would be similar to Proposed Project; however construction emissions would be slightly higher due to the greater length of the line. **No Preference**

TABLE 5-2 (Continued)
DEVERS-MIRAGE 115kV SUBTRANSMISSION SYSTEM SPLIT PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Resource Area	Proposed Project	Alternative 2	Alternative 3	Alternative 5	Alternative 6	Alternative 7
Biological Resources	Impacts determined to be Class II and Class III. **Most impacts to biological resources for the Farrell-Garnet and Mirage-Santa Rosa study areas.**	Impacts would be less adverse than the Proposed Project given that: • Although the overall length of the alternative would be 0.2 mile longer than the Proposed Project, it would include 2.8 miles less overhead line and associated operational impacts; and • The alternative crosses through lower quality habitat for the same special status species.	Impacts would be less adverse than the Proposed Project given that: • Although the overall length of the alternative would be 0.7 mile longer than the Proposed Project, it would include 2.9 miles less overhead line and associated operational impacts; • The line would traverse through primarily urban and disturbed areas that lack suitable habitat for most special status species; and • The alternative crosses through lower quality habitat for the same special status species. **Least impacts on biological resources for the Farrell-Garnet study area.**	Impacts would be less adverse than the Proposed Project given that: • With almost no overhead lines, operational impacts from this alternative would be less adverse than the Proposed Project; and • The line would traverse through paved streets bordered by ornamental trees that provide poor quality habitat for most special status species. **Less impacts on biological resources than the proposed Mirage-Santa Rosa line.**	Impacts would be less adverse than the Proposed Project given that: • The overall length of the alternative would be 1.6 miles shorter than the Proposed Project; and 2.6 miles less overhead line and associated operational impacts; • The line would not introduce any new above ground power lines where they don't already exist so operational impacts would be less adverse; • The alternative crosses through lower quality habitat for the same special status species.	Impacts would be less adverse than the Proposed Project given that: • The line would not introduce any new above ground power lines where they don't already exist so operational impacts would be less adverse; • The alternative crosses through lower quality habitat for the same special status species.

TABLE 5-2 (Continued)
DEVERS-MIRAGE 115kV SUBTRANSMISSION SYSTEM SPLIT PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Resource Area	Proposed Project	Alternative 2	Alternative 3	Alternative 5	Alternative 6	Alternative 7
Cultural Resources	Impacts determined to be Class II and Class III. **Most impacts to cultural resources for the Farrell-Garnet and Mirage-Santa Rosa study areas.**	Impacts would be similar to the Proposed Project.	Impacts would be similar to the Proposed Project.	Impacts would be similar to the Proposed Project. However, Alternative 5 would avoid CA-RIV-785, 33-15429, and 33-15430. **Less impacts on cultural resources than the proposed Mirage-Santa Rosa line.**	Impacts would be similar to the Proposed Project; however, Alternative 6 would not impact Garnett Hill or the high sensitivity Imperial Formation. Alternative 6 would involve one mile of underground line work, but would be 4.2 miles long (i.e., less pole drilling).	Impacts would be similar to the Proposed Project; however, Alternative 7 would not impact Garnett Hill or the high sensitivity Imperial Formation and would involve no underground line construction, but would be approximately 9.1 miles long. **Least impacts on cultural resources for the Farrell-Garnet study area.**
Geology and Soils	Impacts determined to be Class III. **No Preference**	Impacts would be similar to the Proposed Project; however risk of excessive settlement and/or erosion would be slightly higher due to trenching required for the underground segment. **No Preference**	Impacts would be similar to the Proposed Project; however risk of excessive settlement and/or erosion would be slightly higher due to trenching required for the underground segment. **No Preference**	Impacts would be similar to the Proposed Project; however risk of excessive settlement and/or erosion would be slightly higher due to trenching required for the underground segment. **No Preference**	Impacts would be similar to the Proposed Project; however risk of excessive settlement and/or erosion would be slightly higher due to trenching required for the underground segment. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**
Hazards and Hazardous Materials	Impacts determined to be Class II and Class III. **No Preference**	Impacts would be similar to the Proposed Project; however, Alternative 2 would be located closer to existing schools and would have a greater risk of impacting an evacuation route due to trenching requirements for the underground segment. **No Preference**	Impacts would be similar to the Proposed Project; however, Alternative 3 would be located closer to existing schools and would have a greater risk of impacting an evacuation route due to trenching requirements for the underground segment. **No Preference**	Impacts would be similar to the Proposed Project; however, Alternative 5 would have a greater risk of impacting an evacuation route due to trenching requirements for the underground segment. **No Preference**	Impacts would be similar to the Proposed Project; however, Alternative 6 would have a greater risk of impacting an evacuation route due to trenching requirements for the underground segment. **No Preference**	Impacts would be similar to the Proposed Project; however, Alternative 7 would be located closer to existing schools. **No Preference**

TABLE 5-2 (Continued)
DEVERS-MIRAGE 115kV SUBTRANSMISSION SYSTEM SPLIT PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Resource Area	Proposed Project	Alternative 2	Alternative 3	Alternative 5	Alternative 6	Alternative 7
Hydrology and Water Quality	Impacts determined to be Class II and Class III. **No Preference**	Impacts would be similar to the Proposed Project; however, soil disturbance during trenching for the underground segment would result in slightly higher impacts to water quality. **No Preference**	Impacts would be similar to the Proposed Project; however soil disturbance during trenching for the underground segment would result in slightly higher impacts to water quality. **No Preference**	Impacts would be similar to the Proposed Project; however, soil disturbance during trenching for the underground segment would result in slightly higher impacts to water quality. **No Preference**	Impacts would be similar to the Proposed Project; however, soil disturbance during trenching for the underground segment would result in slightly higher impacts to water quality. **No Preference**	Impacts would be similar to the Proposed Project; however, the greater amount of pole replacement would result in slightly higher impacts to water quality. **No Preference**
Land Use, Planning, and Policies	Impacts determined to be Class II and Class III. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**
Mineral Resources	No impacts were identified. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**
Noise	Impacts determined to be Class II and Class III. **No Preference**	Impacts would be similar to the Proposed Project; however, underground portions would have greater noise and vibration impacts from construction, though less impacts from corona noise. **No Preference**	Impacts would be similar to the Proposed Project; however, underground portions would have greater noise and vibration impacts from construction, though less impacts from corona noise. **No Preference**	Impacts would be similar to the Proposed Project; however, the presence of a greater number of residences in proximity to this alternative could result in greater temporary impacts from construction activities. **No Preference**	Impacts would be similar to the Proposed Project; however, underground portions would have greater noise and vibration impacts from construction, though less impacts from corona noise. **No Preference**	Impacts would be similar to the Proposed Project; however, the alternative's proximity to a greater number of residential receptors would result in greater exposure to ambient corona noise. **No Preference**
Population and Housing	No impacts were identified. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**

TABLE 5-2 (Continued)
DEVERS-MIRAGE 115kV SUBTRANSMISSION SYSTEM SPLIT PROJECT VS. ALTERNATIVES
SUMMARY OF ENVIRONMENTAL IMPACT CONCLUSIONS

Resource Area	Proposed Project	Alternative 2	Alternative 3	Alternative 5	Alternative 6	Alternative 7
Public Services	Impacts determined to be Class II and Class III. **No Preference**	Impacts would be similar to the Proposed Project; however additional lane closure required for the underground portion could lead to slightly higher impacts to emergency response times. **No Preference**	Impacts would be similar to the Proposed Project; however additional lane closure required for the underground portion could lead to slightly higher impacts to emergency response times. **No Preference**	Impacts would be similar to the Proposed Project; however additional lane closure required for the underground portion could lead to slightly higher impacts to emergency response times. **No Preference**	Impacts would be similar to the Proposed Project; however additional lane closure required for the underground portion could lead to slightly higher impacts to emergency response times. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**
Recreation	Impacts determined to be Class III. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**
Transportation and Traffic	Impacts determined to be Class II and Class III. **Least impacts to traffic and transportation for the Farrell-Garnet and Mirage-Santa Rosa study areas.**	Impact levels would be similar to the Proposed Project; however additional roadway closures and roadway damage that would result from trenching activities along the 3.0-mile underground segment would lead to higher temporary impacts during construction activities.	Impact levels would be similar to the Proposed Project; however additional roadway closures and roadway damage that would result from trenching activities along the 3.6-mile underground segment would lead to higher temporary impacts during construction activities. **Most impacts to traffic and transportation for the Farrell-Garnet study area.**	Impact levels would be similar to the Proposed Project; however additional roadway closures and roadway damage that would result from trenching activities along the 3.0-mile underground segment would lead to higher temporary impacts during construction activities. **More impacts to traffic and transportation than the proposed Mirage-Santa Rosa line.**	Impact levels would be similar to the Proposed Project; however additional roadway closures and roadway damage that would result from trenching activities along the 1.0-mile underground segment would lead to higher temporary impacts during construction activities.	Impact levels would be similar to the Proposed Project; however since a greater number of roadways would be crossed by this alternative, temporary impacts to traffic during construction would be slightly higher than the Proposed Project.
Utilities and Service Systems	Impacts determined to be Class III. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**	Impacts would be similar to the Proposed Project. **No Preference**

Implementation of the Proposed Project or any of the five alternatives would result in a significant unmitigable (Class I) impact on air quality during construction. Although impacts to air quality would be of varying degree (i.e., alternatives with an underground component would be slightly more adverse than the Proposed Project due to emissions during trenching activities), the impacts would be short term and temporary in nature; therefore, impacts of varying degree between alternatives is not material enough to determine a preferred alternative from an air quality perspective.

Resource categories where environmental impacts would either be materially lessened or increased by implementing an alternative to the Proposed Project are discussed below.

- **Aesthetics** - Impacts would be potentially significant, but mitigable to less than significant for all of the alternatives. Alternative 7 would involve the most amount of overhead line in the Farrell-Garnet study area, including the most overhead line in residential areas and a crossing of I-10. Alternative 3 would involve the least amount of overhead line with no I-10 crossings. The ranking for the Farrell-Garnet study area (most to least favorable) is as follows: Alternative 3, Alternative 6, Alternative 2, the Proposed Project Farrell-Garnet line, and Alternative 7. For the Mirage-Santa Rosa study area, Alternative 5 would result in only a short span of overhead line across I-10 and the UPRR, compared to the Proposed Project Mirage-Santa Rosa line, which would include approximately 1.5 miles of overhead line. Therefore, Alternative 5 is more favorable than the Proposed Project Mirage-Santa Rosa line.

- **Biological Resources -** Impacts would be potentially significant, but mitigable to less than significant for all of the alternatives. The Proposed Project alignments contain more suitable habitat for special status species than do the alternative alignments. Compared to the Proposed Project Farrell-Garnet line, Alternative 3 would result in the least amount of overhead line and associated long-term impacts, followed by Alternative 6, Alternative 2, the Proposed Project Farrell-Garnet line, and Alternative 7. Compared to the Proposed Project Mirage-Santa Rosa line, which would result in approximately 1.5 miles of new overhead line, Alternative 5 would result in only a short segment of overhead line associated with the I-10 and UPRR crossings.

- **Cultural Resources** - Impacts would be potentially significant, but mitigable to less than significant for all of the alternatives. Alternative 6 and Alternative 7 would have no impact on the Garnet Hill cultural resource compared to the Proposed Project Farrell-Garnet line, Alternative 2, and Alternative 3. Between Alternatives 6 and 7, Alternative 6 would include a higher potential for an undiscovered find compared to Alternative 7 due to the one-mile underground line construction work that would be associated with Alternative 6. The ranking for the Farrell-Garnet study area (most to least favorable) is as follows: Alternative 7, Alternative 6, Alternative 3, the Proposed Project Farrell-Garnet line, and Alternative 2. Compared to the proposed Mirage-Santa Rosa line, Alternative 5 would avoid CA-RIV-785, 33-15429, and 33-15430. Therefore, Alternative 5 is more favorable than the Proposed Project Mirage-Santa Rosa line.

- **Transportation and Traffic** - Impacts would be potentially significant, but mitigable to less than significant for all of the alternatives. Compared to the alternative lines, the Proposed Project lines would involve the least amount of construction work within or above roads. Compared to the Proposed Project Farrell-Garnet line, Alternative 3 would result in the most amount of underground line construction within roads, followed by Alternative 2 and Alternative 6. Alternative 7 would not include underground line work,

but would involve more overhead crossings than the Proposed Project Farrell-Garnet line. The ranking for the Farrell-Garnet study area (most to least favorable) is as follows: the Proposed Project Farrell-Garnet line, Alternative 7, Alternative 6, Alternative 2, and Alternative 3. Compared to the Proposed Project Mirage-Santa Rosa line, which would result in no underground line work, Alternative 5 would result in approximately three miles of underground line. Therefore, the Proposed Project Mirage-Santa Rosa line is more favorable than the Alternative 5 line.

While the Proposed Project subtransmission lines would result in the least amount of transportation and traffic impacts compared to the alternatives, these impacts would be primarily short-term and would conclude at the end of construction period. Because the Alternative 5 subtransmission line would result in less long-term aesthetics, biological resources, and cultural resources impacts compared to the Proposed Project Mirage-Santa Rosa line, Alternative 5 is selected as the Environmentally Superior Alternative for the Mirage-Santa Rosa study area. With regard to the Farrell-Garnet study area, Alternative 3 would result in the least amount of long-term aesthetics and biological resources impacts compared to the Proposed Project Farrell-Garnet subtransmission line and Alternatives 2, 6, and 7; however, Alternative 7 would result in the least amount of impacts to cultural resources compared to the Proposed Project Farrell-Garnet subtransmission line and Alternatives 2, 3, and 6. After considering all impacts, and the long length of Alternative 7, Alternative 3 is selected as the Environmentally Superior Alternative for the Farrell-Garnet study area.

5.4 No Project Alternative vs. the Environmentally Superior Alternative

5.4.1 Summary of the No Project Alternative and its Impacts

The No Project Alternative is described in Section 3.4.1. Under the No Project alternative, the Proposed Project would not be built. For the purposes of this EIR, the No Project Alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) new subtransmission and transmission lines and/or additional power generation would be constructed in or near the study area to supply power to the Electrical Needs Area. As described in Sections 4.1 through 4.16, the environmental impacts of the No Project Alternative would vary depending upon what other energy infrastructure construction or upgrades would occur to supply power to the Electrical Needs Area. Impacts may be generally similar to, or in the case of new generation, considerably greater than the Proposed Project.

5.4.2 Summary of the Environmentally Superior Alternative and its Impacts

The Environmentally Superior Alternatives are defined in Section 5.3 as Alternative 3 for the Farrell-Garnet study area and Alternative 5 for the Mirage-Santa Rosa study area. The impacts of Alternatives 3 and 5 are defined in each resource area's impact analysis in Sections 4.1 through 4.16, and are also summarized in Table 5-2, above. The Environmentally Superior Alternatives

would each have the same short-term construction related significant and unmitigable (Class I) impacts on air quality. As discussed in Sections 4.1 through 4.16, other types of impacts would also occur under Alternatives 3 and 5, but they would be either less than significant or mitigable to less than significant levels.

5.4.3 Conclusion: Comparison of the Environmentally Superior Alternative with the No Project Alternative

The Environmentally Superior Alternatives (Alternatives 3 and 5) would reduce long-term aesthetics and biological resources impacts and would have minimal long-term impacts on residences or other sensitive land uses. Under the No Project Alternative scenario, SCE may be required to construct new subtransmission and transmission lines and/or additional power generation in or near the study area to supply power to the Electrical Needs Area. It would be overly speculative for this EIR to assume where the new subtransmission and transmission facilities and/or power generation facilities would be sited; however, it is reasonable to assume that at a minimum, environmental impacts associated with the No Project Alternative scenario would not be less than those from the Environmentally Superior Alternatives. Therefore, the Environmentally Superior Alternatives are preferred over the No Project Alternative.

CHAPTER 6
CEQA Statutory Sections

6.1 Growth-Inducing Effects

CEQA requires a discussion of the ways in which a project could induce growth. Section 15126.2(d) of the CEQA Guidelines, identifies a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. New employees hired for proposed commercial and industrial development projects and population growth resulting from residential development projects represent direct forms of growth. Other examples of projects that are growth-inducing are the expansion of urban services into a previously unserved or under-served area, the creation or extension of transportation links, or the removal of major obstacles to growth. It is important to note that these direct forms of growth have secondary effects of expanding the size of local markets and attracting additional economic activity to the area.

Typically, the growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

6.1.1 Growth Caused by Direct and Indirect Employment

The combined number of construction workers that would be required to construct the Proposed Project components would be approximately 300 crew members, including SCE and contracted construction personnel. However, it is assumed that the majority of the crews would move from one project component site to the next (e.g., from one substation site to the next), resulting in the need for well under 300 total construction crew members at any one time. Project operation and maintenance requires minimal staffing, which would be handled by current SCE employees; therefore, no new jobs would be created.

It is anticipated that construction workers would commute from within Riverside County or adjacent areas and would not need to relocate to the project area. Therefore, Proposed Project construction activities are not expected to result in any significant increase to the local population or housing market, and would not indirectly induce growth by creating new opportunities for local industry or commerce. Over the long term, the Proposed Project would have no impact on population growth, as no long-term growth employment would result from project operations and maintenance.

6.1.2 Growth Related to Provision of Additional Electric Power

Construction of the Proposed Project is needed to meet electric system reliability and planned demand in the Electrical Needs Area, which includes the cities of Palm Springs, Rancho Mirage, Cathedral City, Palm Desert, Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community. Therefore, the Proposed Project is designed to increase reliability and accommodate existing and planned electrical load growth, rather than to induce growth.

Growth in the Electrical Needs Area is planned and regulated by applicable local planning policies and zoning ordinances. The provision of electricity is generally not considered an obstacle to growth nor does the availability of electrical capacity by itself normally ensure or encourage growth within a particular area. Other factors such as economic conditions, land availability, population trends, availability of water supply or sewer services and local planning policies have a more direct effect on growth. Therefore, the Proposed Project would not indirectly induce growth by creating new opportunities for local industry or commerce.

6.2 Significant Environmental Effects that Cannot be Avoided

Sections 15126.2(b) of the CEQA Guidelines requires that an EIR identify significant environmental effects which cannot be avoided by the Proposed Project including those that can be mitigated, but not to a less than significant level. The Proposed Project would result in temporary impacts to Air Quality during construction, that even with implementation of mitigation measures, would remain significant unmitigable. Emissions of oxides of nitrogen (NOx) and particulate matter during construction activities would exceed regional and localized thresholds of significance set by the South Coast Air Quality Management District. As discussed in Chapter 3, *Alternatives and Cumulative Projects*, a number of alternatives were analyzed to determine if they could meet most project objectives while avoiding or minimizing the significant impacts associated with the Proposed Project. No alternatives were identified that would meet most project objectives while reducing impacts associated with the Proposed Project to a mitigable level. Accordingly, temporary impacts to air quality during construction could not be alleviated through development of alternatives.

6.3 Significant Irreversible Changes

Sections 15126.2(c) of the CEQA Guidelines requires that an EIR identify significant irreversible environmental changes that would be caused by the Proposed Project. These changes may include, for example, uses of nonrenewable resources, or provision of access to previously inaccessible areas, as well as project accidents that could change the environment in the long-term. Development of the Proposed Project would require a permanent commitment of natural resources resulting from the direct consumption of fossil fuels, construction materials, the manufacture of new equipment that largely cannot be recycled at the end of the project's useful lifetime, and energy required for the production of materials.

During the project's operational phase, the subtransmission and transmission lines would allow for the efficient transport of additional electrical power generated from renewable and non-renewable resources. However, the Proposed Project would not require the future use of specific amounts of non-renewable resources.

6.4 Cumulative Impacts

This section presents the analysis of the potential for the Proposed Project to create cumulative effects when the impacts of projects listed in Table 3-7 (see Chapter 3, *Alternatives and Cumulative Projects*) are considered together with the impacts of the Proposed Project.

6.4.1 Aesthetics

The geographic scope of the cumulative impacts to visual quality is the viewsheds that could be affected by the Proposed Project facilities from public roadways, trails, open space, and residential areas. Viewsheds of the project vicinity are extensive, given the extensiveness of the landscapes traversed, general lack of vegetative screening, and large number of people who reside in western Coachella Valley.

Mitigation Measures 4.1-3, 4.1-6, 4.1-7, and 4.1-8 would ensure that the Proposed Project would not result in significant individual effects on visual resources. The past, present, and reasonably foreseeable future projects described in Chapter 3, *Alternatives and Cumulative Projects*, include numerous major development projects in western Coachella Valley that could substantially alter the visual character of areas within the project vicinity. Many of these projects would have the potential to create new visual impacts within the viewsheds that could be affected by the Proposed Project from public roadways, trails, open space, and residential areas. However, the projects would generally be located in urbanized, developed areas and so would not be likely to affect the area's visual character. Additionally, future development within the project vicinity is guided by the applicable city and Riverside County General Plans, and associated planning and environmental documents. Furthermore, new development would be subject to the applicable city and Riverside County design review processes.

The Proposed Project would add new or upgraded electrical infrastructure to the overall visual setting of the project area. The Proposed Project would contribute to cumulative adverse influences where aboveground facilities occupy the same field of view as other built facilities or impacted landscapes that are currently in the viewsheds of sensitive viewers in the project area. Existing electricity infrastructure (described in Section 4.1, *Aesthetics*), including subtransmission lines, transmission lines, and substations, have compromised the existing visual setting in the project vicinity. Therefore, the Proposed Project, along with the past, present, and reasonably foreseeable projects, would not dominate the landscape setting.

When considered with the existing visual setting, the Proposed Project would not significantly alter existing scenic quality or viewsheds and would not substantially add cumulative effects. Cumulative impacts would be less than significant (Class II).

6.4.2 Agriculture Resources

The construction, operation, and maintenance of the Proposed Project, in addition to the other reasonably foreseeable future developments listed in Section 3.6, *Cumulative Projects*, would not result in cumulative impacts to agricultural resources. The Proposed Project would not convert Farmland to non-agricultural use. In addition, the project would not conflict with existing zoning for agricultural use, or with land currently under a Williamson Act contract, or involve other changes in the existing environment which, due to its location or nature could result in conversion of Farmland to non-agricultural use. The proposed Mirage-Santa Rosa 115 kV alignment traverses a parcel designated as Farmland of Local Importance under the FMMP. However, impacts to this parcel would be less than significant given that the parcel is not currently used for agricultural purposes and the portion of the proposed alignment that traverses the parcel would be located within existing SCE ROW. Therefore, the Proposed Project would have a less than significant contribution to a cumulatively considerable impact when considered in combination with the other past, present, and reasonably foreseeable projects in the area (Class III).

6.4.3 Air Quality

Construction of the Proposed Project would have a temporary impact on regional air quality from emissions of particulate matter (PM10 and PM2.5), and NOx, which would be cumulatively considerable when combined with construction of other projects proposed in the project vicinity. The SCAQMD regional thresholds were set to limit air pollution and to help the district reach attainment status for PM10, PM2.5, and ozone. By exceeding the regional PM10, PM2.5, and NOx thresholds, emissions generated by the Proposed Project combined with emissions from construction of other projects may contribute to air quality violations in the SSAB and may inhibit the SSAB's ability to achieve attainment status. Although the SSAB is in attainment for nitrogen dioxide, NOx emissions are still a concern as NOx is a precursor to ozone generation. Applicant proposed measures and Mitigation Measures 4.3-1a and 4.3 1-b would help reduce construction emissions; however, impacts would remain significant and would therefore result in a significant short-term unmitigable cumulative impact to regional air quality (Class I).

In addition to regional impacts, construction of the Proposed Project would cause significant unmitigable impacts to localized air quality during construction activities. Proposed construction components that would have a significant impact on nearby receptors include the following: the Farrell-Garnet 115 kV line, the Mirage-Santa Rosa 115 kV line, and the 220 kV loop-in, and the upgrades to Mirage Substation. Construction projects located in close proximity to these components would exacerbate the localized impact if construction activities overlap, and would thus cause a significant impact when considered on a cumulative level (Class I).

Construction projects that may overlap with construction of the proposed Farrell-Garnet 115 kV line and are within close proximity of potential construction areas include the Casa Verona Subdivision project and the Palm Springs Classic/Escena project. The Casa Verona Subdivision project would be located approximately 0.3 mile from the proposed Farrell-Garnet 115 kV line alignment and would include the subdivision of a 6.1 acre parcel into 25 residential lots. This project is currently approved but construction has not commenced. The Palm Springs

Classic/Escena project is located approximately 0.1 mile from the Farrell Substation and includes the construction of an 18-hole golf course, a 450 unit hotel, and 1,450 residential units. This project is currently under construction and therefore may overlap with construction of the proposed Farrell-Garnett 115 kV line if construction activities associated with this cumulative project continue into the second quarter of 2010. If construction activities from any of these projects overlap with construction of the proposed Farrell-Garnet 115 kV line, there would be an increased chance of exposing nearby receptors to harmful pollutant concentrations, thus resulting in a cumulatively considerable impact to localized air quality.

The Ponderosa Homes II project, which includes the construction of 237 single family residences, is located within half a mile from the proposed Mirage-Santa Rosa 115 kV line alignment as well as the proposed 115 kV reconfiguration at Gerald Ford Drive and Portola Avenue. This project is currently under construction and could overlap with construction of the Mirage-Santa Rosa 115 kV line, thus resulting in a cumulatively considerable impact on localized air quality.

There is a proposed subdivision that would be located within half a mile from the proposed 220 kV loop-in alignment just north of Ramon Road between Desert Moon Drive and Vista Del Sol. This subdivision would result in the development of 144 residential and commercial lots. If approved, the construction of these units could overlap with construction of the proposed 220 kV loop-in and could result in a cumulatively considerable impact to nearby receptors located between the two project sites.

As demonstrated above, there are a number of proposed and approved construction projects located near the components of the Proposed Project that are expected to cause significant and unmitigable impacts to localized air quality. Therefore, any overlap between construction of the Proposed Project and nearby projects would increase the chances of exposing a receptor to harmful pollutant concentrations. Therefore, the Proposed Project would be cumulatively considerable and cumulative impacts to localized air quality would be significant and unmitigable (Class I).

Significance of GHG emissions is determined based on whether they would have a cumulatively considerable impact on global climate change. The Proposed Project would generate considerably less than 7,000 metric tons CO_2e per year, and, with mitigation, would not conflict with the State's GHG reduction goals. The Proposed Project's contribution to global climate change would not be cumulatively considerable and cumulative impacts would be mitigated to a less than significant level (Class II).

6.4.4 Biological Resources

The geographical context includes urban and open space land uses in the Coachella Valley that support common and sensitive biological resources.

Construction of the Proposed Project could result in both temporary and permanent impacts on special-status species (i.e., CV fringe-toed lizard, burrowing owl, Le Conte's thrasher, ferruginous hawk, loggerhead shrike, Palm Springs pocket mouse, and Palm Springs round-tailed

ground squirrel), and their habitats. It is anticipated that ongoing and future development projects as described in Section 3.6, *Cumulative Projects*, would contribute to the incremental loss of undeveloped natural lands that provide habitat for these special-status species. Many development activities in the Coachella Valley would be guided by the recently adopted CVMSHCP. The CVMSHCP aims to guide growth in a way that would not result in cumulatively significant impacts on special-status species, through special-status species minimization measures, conservation planning, and establishing preserves in biologically rich areas. Past, present, and reasonably foreseeable projects, whether they are part of the CVMSHCP or not, are required to comply with federal and State regulations protecting special-status species through implementation of mitigation measures during construction. Activities associated with the construction of the Proposed Project would cause relatively minor loss of undeveloped Sonoran creosote bush scrub, stabilized and partially stabilized desert dunes, and active sand fields in the area; most of these losses would be associated with the footprint of individual transmission towers/poles and access roads that would traverse native habitat. Therefore, implementation of APM BIO-1 through APM BIO-11 and Mitigation Measures 4.4-1 through 4.4-10, which require SCE to conduct surveys and to avoid, minimize, and mitigate for potential impacts to special-status species and their habitat, would reduce the cumulative contribution of the Proposed Project to less than significant (Class II).

Construction of the Proposed Project could impact active sand fields, a sensitive natural community, and Whitewater Wash, which is a jurisdictional water of the United States. It is anticipated that ongoing and future development projects as described in Section 3.6, *Cumulative Projects*, would contribute to impacts to such features. As with special-status species, past, present, and reasonably foreseeable projects are required to comply with federal and State regulations protecting sensitive natural communities and jurisdictional waters.

The proposed Farrell-Garnet subtransmission line would cross through active sand fields and Whitewater Wash; therefore, it is expected that there would be temporary and/or permanent impacts to both of these features. The Proposed Project's impact in combination with other projects could contribute to a cumulatively significant impact on sensitive natural communities and jurisdictional waters of the United States. Implementation of APM BIO-2 (Minimize Vegetation Impacts), and Mitigation Measures 4.4.1 and 4.4.2 would require SCE to minimize impacts to existing vegetation (although Active Sand Fields contain little vegetation cover) and replace lost habitat. Implementation of APM BIO-3 (Avoid Impacts to State and Federal Jurisdiction Wetlands), and Mitigation Measures 4.4-10 would require SCE to avoid jurisdictional waters to the extent possible, to perform a wetland delineation and have it verified by the USACE. Additionally, SCE would be required to avoid, minimize or mitigate potential impacts. As noted above, it is anticipated that impacts from construction of the Proposed Project to sensitive natural communities and jurisdictional waters would be avoided or minimal; therefore, in combination with other projects as described in Section 3.6, *Cumulative Projects*, the Proposed Project would not contribute to a cumulatively significant impact on sensitive natural communities or jurisdictional waters of the United States or waters of the State (Class II).

6.4.5 Cultural Resources

There are over 100 proposed, approved, and in-progress projects within 0.5 mile of the Proposed Project and alternative alignments and sites. Section 4.5.4 includes several mitigation measures to reduce potential impacts to cultural resources during construction of the Proposed Project (i.e., accidental damage or destruction of previously unknown archaeological sites) to less-than-significant levels. The study area contains significant archaeological and historical records that, in many cases, have not been well documented or recorded. Thus, there is the potential for future development projects in the vicinity to disturb landscapes that may contain known or unknown cultural resources. However, future projects with potentially significant impacts to cultural resources would be required to comply with federal, State, and local regulations and ordinances protecting cultural resources through implementation of similar mitigation measures during construction. Therefore, the potential construction impacts of the Proposed Project in combination with other projects in the area would not contribute to a cumulatively significant impact on cultural or paleontological resources. With the implementation of Mitigation Measures 4.5-2, 4.5-3a, 4.5-3b, 4.5-3c, 4.5-4a, 4.5-4b, and 4.5-4c (discussed in Section 4.5, *Cultural Resources*), cumulative impacts would be less than significant (Class II).

6.4.6 Geology and Soils

Impacts on geology and soils are generally localized and do not result in regionally cumulative impacts. Geologic conditions can vary significantly over short distances creating entirely different effects elsewhere. Other future development would be constructed to current standards, which could potentially exceed those of existing improvements within the region, which reduces the potential impacts to the public.

The impact of the Proposed Project on geology and soils is localized and is incrementally less than significant. Therefore, the Proposed Project would not affect the immediate vicinity surrounding the study area. The Proposed Project components would all be constructed in accordance with the most recent version of the California Building Code seismic safety requirements and recommendations contained in the Proposed Project's specific geotechnical reports. Therefore, incremental impacts to area geology and soils resulting from construction and operation of the Proposed Project would not contribute to a cumulatively considerable impact (Class III).

6.4.7 Hazards and Hazardous Materials

Construction activities would increase the hazard potential in the study area. However, it is unlikely that the Proposed Project, with the other past, present, and reasonably foreseeable future projects, would contribute to a cumulative hazards or hazardous materials related impact. APMs HAZ-1 through HAZ-4 and Mitigation Measure 4.7-3 would ensure that the Proposed Project's construction-related hazards and hazardous materials impacts would be less than cumulatively considerable (i.e., because the Proposed Project would mitigate its contribution to any potential cumulative impact). Therefore, the cumulative impact of the Proposed Project related to hazards

and hazardous materials, in combination with other reasonably foreseeable projects, would be less than significant with mitigation (Class II).

6.4.8 Hydrology and Water Quality

This Proposed Project along with other projects occurring in the area would be required to comply with applicable federal, State, and local water quality regulations. The Proposed Project, along with other projects over one acre in size, would be required to obtain coverage under the General Permit. Storm water management measures would be required to be identified and implemented that would effectively control erosion and sedimentation and other construction related pollutants during construction. Other management measures, such as construction of infiltration/detention basins, would be required to be identified and implemented that would effectively treat pollutants that would be expected for the post-construction land use for certain projects.

Construction and operational related stormwater runoff from the Proposed Project would be controlled by the requirements of the NPDES permit. Other new development in the area would also be required to control construction and operational stormwater by implementing State and local requirements regarding hydrology and water quality. Furthermore, the APMs and mitigation measures described in this EIR would ensure that the Proposed Project impacts to hydrologic resources and water quality would be less than cumulatively considerable. Therefore, the cumulative impact of the Proposed Project, in combination with other reasonably foreseeable projects, would be less than significant with mitigation (Class II).

6.4.9 Land Use and Planning

The geographic context for the cumulative impacts associated with land use and planning issues are the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, as well as unincorporated areas of Riverside County, including the Thousand Palms community, which assumes full buildout of the Proposed Project, in combination with build out of the projects listed in Section 3.6, *Cumulative Projects.*

As noted in Section 3.6, *Cumulative Projects*, a number of projects are planned within the project area and would have the potential to be constructed simultaneously with the Proposed Project. All potential Proposed Project land use impacts resulting from temporary construction activities, including temporary increases in noise and dust, decreased air quality from construction vehicles, odors from construction equipment, safety issues, loss of vegetation, and access issues are analyzed in the corresponding sections of this EIR (see Sections 4.1, *Aesthetics*; 4.3, *Air Quality*; 4.4, *Biological Resources*; 4.11, *Noise*; and 4.15, *Transportation and Traffic*). From an operations and maintenance perspective, the Proposed Project would not be cumulatively considerable because the projects discussed in Section 3.6, *Cumulative Projects,* are representative of the ongoing level of development in the region and would all be required to be consistent with applicable land use plans, policies, or regulations of the agencies with jurisdiction over the respective projects. Therefore, implementation of the Proposed Project would not result in significant cumulative impacts to land use and planning. Impacts would be mitigated to less than significant (Class II).

6.4.10 Mineral Resources

Since the Proposed Project would not have any individual impact on mineral resources, it can be concluded that the Proposed Project would have no contribution to a cumulatively considerable impact to mineral resources (No Impact).

6.4.11 Noise

Noise levels tend to lessen quickly with distance from a source; therefore, the geographic scope for cumulative impacts associated with noise would be limited to projects that are in the immediate vicinity of the Proposed Project.

Equipment used during construction activities would temporarily increase short-term noise levels in the study area. Construction of the Proposed Project, in conjunction with the other projects listed in Section 3.6, *Cumulative Projects*, would have the potential to contribute to a cumulative noise impact because construction of the cumulative projects may occur in the immediate area at the same time as the Proposed Project. For example, the Casa Verona residential subdivision project, located approximately 0.3 mile from the proposed Farrell-Garnet alignment, has been approved by the Palm Springs City Council. Therefore, construction of this project could potentially overlap with construction of the proposed Farrell-Garnet line. Also, the Ponderosa Homes II project, which includes the construction of 237 single family homes, is currently being constructed within 0.2 mile of the proposed 115 kV reconfiguration site at Portola Avenue and Gerald Ford Drive. If construction of this project continues into 2010, it may overlap with construction of the Proposed Project, thus exposing nearby sensitive receptors to cumulatively considerable noise increases.

Although construction of the Proposed Project may occur simultaneously with the various other cumulative projects, implementation of APMs NOISE-1 through NOISE-3 identified in Section 4.11.3 and Mitigation Measures 4.11-6a and 4.11-6b identified in Section 4.11.4 would ensure that the Proposed Project's construction-related noise impacts would be less than cumulatively considerable (i.e., because the Proposed Project would mitigate its contribution to the cumulative impact). As a result, cumulative noise impacts would be mitigated to less than significant (Class II).

Operations of the Proposed Project, in conjunction with the operations of other projects listed in Section 3.6, would have the potential to contribute to a long-term cumulative noise impact because operations of at least one of the cumulative projects would occur in the immediate vicinity of the Proposed Project. SCE plans to construct a new distribution substation in 2011 within the Mirage Substation property that would have one 28 MVA transformer, two 12 kV circuits, and capacitors. However, operations of the distribution voltage transformer and other equipment would result in minor noise levels that would be considerably less than the current ambient levels at Mirage Substation. In addition, impacts associated with the proposed modifications to Mirage Substation would be mitigated to less than significant with implementation of Mitigation Measure 4.11-2. Therefore, noise levels associated with the proposed new transformer would not be cumulatively considerable (Class II).

Corona discharge would not substantially increase ambient noise levels and would therefore not result in a cumulatively considerable contribution to noise impacts. Moreover, maintenance activities would include infrequent inspection of the lines and would also not result in a cumulatively considerable contribution to noise impacts. Therefore, operations and maintenance of the Proposed Project would not be cumulatively considerable. Cumulative impacts would be mitigated to less than significant (Class II).

6.4.12 Population and Housing

The geographic context for the cumulative impacts associated with population and housing issues are the cities and unincorporated communities of western Coachella Valley in Riverside County, which assumes full buildout of the Proposed Project, in combination with buildout of the projects listed in Section 3.6, *Cumulative Projects.* Riverside County, including western Coachella Valley, is expected to undergo substantial growth over the next two decades. By 2030, the population of Riverside County is expected to nearly double to 3.3 million persons residing in approximately one million residential dwelling units. However, the Proposed Project is designed to increase reliability and accommodate existing and planned electrical load growth, rather than to induce growth. Therefore, the Proposed Project represents no incremental portion of a potential growth impact, and the Proposed Project would not have cumulatively considerable impacts in regards to population and housing (No Impact).

6.4.13 Public Services

The geographic scope of cumulative impacts related to public services is the service area of affected public services, generally limited to the cities of Palm Springs, Rancho Mirage, Cathedral City, Palm Desert, and Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community. The Proposed Project would not result in significant effects on the ability of service providers to provide adequate police services, fire protection and emergency medical services, and public school facilities to the project area. The past, present, and reasonably foreseeable future projects described in Section 3.6, *Cumulative Projects*, include several large development projects planned in the vicinity of the Proposed Project alignment and sites that may impact public services. These projects include numerous new housing subdivisions. It is likely that this cumulative development would require expansion of existing, or development of new, public service infrastructure to support the planned population growth. If this growth were to occur prior to improvements in public service infrastructure, then there could be significant adverse effects on fire protection and emergency medical services, police protection, schools, and other public facilities. However, the Proposed Project's impacts to public services would generally be limited to the construction period from 2010 to mid-2011, after which the Proposed Project's demand on public services would be inconsequential. Additionally, Mitigation Measures 4.13-1 and 4.13-2 would ensure that the Proposed Project's temporary public service impacts during construction would be less than significant. Therefore, the effect of the Proposed Project on public services, in combination with other past, present, and reasonably foreseeable projects, would not be cumulatively considerable. The Proposed Project's contribution to cumulative impacts would be mitigated to less than significant (Class II).

6.4.14 Recreation

The geographic scope of cumulative impacts is the regional recreational facilities in the project area, generally located within Riverside County and the cities of Palm Springs, Cathedral City, Rancho Mirage, Indian Wells, and Palm Desert.

Implementation of the Proposed Project would not result in a substantial increase in demand for recreational facilities such that substantial physical deterioration of the existing facilities would occur or be accelerated. Implementation of new projects as described in Section 3.6, *Cumulative Projects*, would include residential developments which may increase demand on existing recreational facilities and/or result in the need for new recreational facilities within the project vicinity. However, since the Proposed Project would not have an individual incremental impact on demand for recreational facilities once construction is complete, it would not contribute to cumulative demand associated with other reasonably foreseeable projects (No Impact).

There are a number of other reasonably foreseeable development projects within the vicinity of the Tri-Palm Golf Course; however, none of these projects would actually be constructed in the golf course and would therefore not impact operation of the course. Since there are no reasonably foreseeable projects that would impact the golf course simultaneously with construction of the Proposed Project, short-term impacts associated with the proposed Mirage-Santa Rosa subtransmission line would not be cumulatively considerable and cumulative impacts would be less than significant (Class III).

6.4.15 Transportation and Traffic

The geographic context for the cumulative impacts associated with transportation and traffic issues is primarily limited to the areas where transportation facilities (e.g., roads, railroads, etc) would be crossed during conductor stringing activities.

Proposed Project construction activities, as described in Chapter 2, *Project Description*, could have a temporary construction-related impact on local traffic flow in the Proposed Project area as street and lane closures may be required. The geographic context for the cumulative impacts associated with transportation and traffic issues is primarily limited to the areas where transportation facilities (e.g., roads, railroads, etc.) would be crossed during conductor stringing activities. In conjunction with other construction projects identified in Section 3.6, *Cumulative Projects*, potential cumulative impacts could occur. For example, the City of Palm Desert has proposed construction of a new westbound loop on-ramp and to realign the existing westbound off-ramp from I-10 to Varner Road. If this project, or other projects identified in Section 3.6 of this EIR, were to be constructed at the same time that components of the Proposed Project would be constructed, a cumulative traffic impact could result along certain access routes to the Proposed Project alignments and sites. However, Mitigation Measure 4.15-1 would require SCE to prepare a Traffic Management and Control Plan, which would reduce the construction impacts of the Proposed Project, including effects on emergency access and any increase in hazards, to a less than significant level. Therefore, the Proposed Project would not be cumulatively considerable and cumulative impacts would be mitigated to less than significant (Class II). Furthermore, the limited and dispersed nature of the

parking requirements of the Proposed Project would be unlikely to create a cumulatively significant use of local parking capacity when considered with other past, present, and reasonably foreseeable projects (Class III).

During operation, proposed maintenance activities would not increase above existing levels that are employed to maintain the existing subtransmission and transmission line ROWs and substations. Therefore, the Proposed Project would not be cumulatively considerable and there would be no cumulative long-term impacts (No Impact). There would also be no cumulative conflict with adopted policies, plans, or programs supporting alternative transportation (No Impact).

6.4.16 Utilities and Services Systems

Construction, operation, and maintenance activities that would be associated with the Proposed Project would result in no impacts that would affect the ability of Riverside County, or the cities of Palm Springs, Palm Desert, Rancho Mirage, Cathedral City, and Indian Wells, and other service providers to effectively deliver public water supply, sanitary sewer (wastewater), solid waste, and other utility services in the study area. Therefore, the Proposed Project would not have any contribution to cumulative impacts to those services (No Impact). The past, present, and reasonably foreseeable future projects described in Section 3.6, *Cumulative Projects*, include several development projects planned in the vicinity of the study area that may contact and/or disturb underground utility lines and/or facilities during construction activities. However, the Proposed Project's potential to adversely impact existing underground utilities would be substantially reduced by contacting Underground Service Alert, manually probing for existing buried utilities prior to any powered-equipment drilling or excavation, and implementing two APMs (PUSVC-01 and PUSVC-02). Furthermore, construction activities associated with the other cumulative projects in the area would be required to comply with Article 2 of California Government Code 4216 (i.e., contact Underground Service Alert and manually probe for existing buried utilities) to avoid impacting underground utilities. Therefore, the Proposed Project would not result in a cumulatively considerable impact to existing underground utilities (Class III).

SECTION 7
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MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM

SOUTHERN CALIFORNIA EDISON'S
DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT
(APPLICATION NO. A.08-01-029)

Introduction

This document describes the mitigation monitoring, reporting, and compliance program (MMRCP) for ensuring the effective implementation of the mitigation measures required for the California Public Utilities Commission (CPUC, or Commission) approval of Southern California Edison's (SCE) application to construct, operate, and maintain the Proposed Project. All mitigations are presented in Table 8-1 provided at the end of this MMRCP.

If the Proposed Project is approved, this MMRCP would serve as a self-contained general reference for the Mitigation Monitoring Program adopted by the Commission for the project. If and when the Proposed Project has been approved by the Commission, the CPUC will compile the Final Plan from the Mitigation Monitoring Program in the Final Environmental Impact Report (EIR), as adopted.

California Public Utilities Commission – MMRCP Authority

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval be implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a MMRCP when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies potentially significant environmental effects. California Environmental Quality Act (CEQA) Guidelines Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring and reporting.

The purpose of a MMRCP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMRCP as a working guide to

facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC and any monitors it may designate.

The Commission will address its responsibility under Public Resources Code Section 21081.6 when it takes action on SCE's applications. If the Commission approves the applications, it will also adopt a Mitigation Monitoring, Compliance, and Reporting Program that includes the mitigation measures ultimately made a condition of approval by the Commission.

Because the CPUC must decide whether or not to approve the SCE application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decisions and to consider mitigation for any identified significant environmental impacts.

If the CPUC approves SCE's application for authority to construct and operate the subtransmission and transmission lines and to modify its substations, SCE would be responsible for implementation of any mitigation measures governing both construction and future operation of the subtransmission and transmission lines and substations. Though other State and local agencies would have permit and approval authority over construction of the subtransmission and transmission lines, the CPUC would continue to act as the lead agency for monitoring compliance with all mitigation measures required by this EIR. All approvals and permits obtained by SCE would be submitted to the CPUC for mitigation compliance prior to commencing the activity for which the permits and approvals were obtained.

In accordance with CEQA, the CPUC reviewed the impacts that would result from approval of the application. The activities considered include the construction of the upgraded and new subtransmission and transmission lines and modification of the Devers, Mirage, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, Tamarisk, Concho, and Indian Wells substations, and modifications to the Edom Hill Communication Site and Palm Springs Service Center, and the future operation of these facilities. The CPUC review concluded that implementation of the Proposed Project could result in temporary significant unmitigable impacts to air quality during construction activities. All other potential impacts could be mitigated to less than significant levels. The CPUC has included the stipulated mitigation measures as conditions of approval of the applications and has circulated a Draft EIR.

The attached EIR presents and analyzes potential environmental impacts that would result from construction, operation, and maintenance of the new subtransmission and transmission lines and other facility modifications, and proposes mitigation measures, as appropriate. Based on the EIR, approval of the application would have no impact or less than significant impacts in the following areas:

- Agricultural Resources
- Geology and Soils
- Mineral Resources
- Population and Housing
- Recreation
- Utilities and Service Systems

The EIR indicates that approval of the application would result in potentially significant impacts that would be mitigated to less than significant in the areas of:

- Aesthetics
- Biological Resources
- Cultural Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use, Planning and Policies
- Noise
- Public Services
- Transportation and Traffic

The EIR indicates that approval of the application would result in significant and unmitigable impacts in the in the area of:

- Air Quality

Roles and Responsibilities

As the lead agency under CEQA, the CPUC is required to monitor this project to ensure that the required mitigation measures and any Applicant Proposed Measures are implemented. The CPUC will be responsible for ensuring full compliance with the provisions of this MMRCP and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures required by the CPUC are implemented and that mitigated environmental impacts are reduced to the level identified in the Program. The CPUC has the authority to halt any activity associated with the Proposed Project if the activity is determined to be a deviation from the approved project or the adopted mitigation measures.

The CPUC may delegate duties and responsibilities for monitoring to other mitigation monitors or consultants as deemed necessary. The CPUC will ensure that the person(s) delegated any duties or responsibilities are qualified to monitor compliance.

The CPUC, along with its mitigation monitor, will ensure that any variance process, which will be designed specifically for the Proposed Project, or deviation from the procedures identified under the monitoring program, is consistent with CEQA requirements; no project variance will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMRCP, a variance should be strictly limited to minor project changes that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A Proposed Project change that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA review is required. Any proposed deviation from the approved project and adopted mitigation measures, including correction of such deviation, shall be reported immediately to the CPUC and the mitigation monitor assigned to the construction for their review and approval. In some cases, a variance may also require approval by a CEQA responsible agency.

Enforcement and Responsibility

The CPUC is responsible for enforcing the procedures for monitoring through the environmental monitor. The environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CPUC. The CPUC has the authority to halt any construction, operation, or maintenance activity associated with the project if the activity is determined to be a deviation from the approved project or adopted mitigation measures. The CPUC may assign its authority to their environmental monitor.

Mitigation Compliance Responsibility

SCE is responsible for successfully implementing all the adopted mitigation measures in this MMRCP. The MMRCP contains criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

SCE shall inform the CPUC and its mitigation monitor in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC in coordination with its mitigation monitor will assess whether alternative mitigation is appropriate and specify to SCE the subsequent actions required.

Dispute Resolution Process

This MMRCP is expected to reduce or eliminate many of the potential disputes concerning the implementation of the adopted measures. However, in the event that a dispute occurs, the following procedure will be observed:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.

- **Step 2.** Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the Proposed Project or adopted Mitigation Monitoring Program.

- **Step 3**. If a dispute or complaint regarding the implementation or evaluation of the MMRCP or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on the filer and other affected participants.

- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the Resolution, such party(ies) may appeal it to the Commission via a procedure to be specified by the Commission.

Parties may also seek review by the Commission through existing procedures specified in the Commission's Rules of Practice and Procedure for formal and expedited relief.

General Monitoring Procedures

Mitigation Monitor

Many of the monitoring procedures will be conducted during the construction phase of the project. The CPUC and the mitigation monitor are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SCE. To oversee the monitoring procedures and to ensure success, the mitigation monitor assigned to the construction must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The mitigation monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in the MMRCP, will be taken:

- Procedures to be followed by construction companies hired to do the work will be written into contracts between SCE and any construction contractors. Procedures to be followed by construction crews will be written into a separate agreement that all construction personnel will be asked to sign, denoting agreement.

- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMRCP.

- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all mitigation measures requiring their attention.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the mitigation monitor assigned to the construction. A monitoring record form will be submitted to the mitigation monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the mitigation monitor. A checklist will be developed and maintained by the mitigation monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The mitigation monitor will note any problems that may occur and take appropriate action to rectify the problems. SCE shall provide the CPUC with written quarterly reports of the project, which

shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the project. Quarterly reports shall be required as long as mitigation measures are applicable.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC on request. The CPUC and SCE will develop a filing and tracking system.

Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a MMRCP to ensure compliance during project implementation (CEQA 21081.6):

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined above; and

- If in either review, the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, or that recent proven technological advances could provide more effective mitigation, then the CPUC may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

Mitigation Monitoring, Reporting and Compliance Program

The table attached to this program presents a compilation of applicant proposed measures (APMs) and the mitigation measures in the EIR. The purpose of the table is to provide a single comprehensive list of impacts, mitigation measures, monitoring and reporting requirements, and timing.

SCE proposed APMs to minimize impacts to the following resource areas: air quality; biological resources; cultural resources (including paleontological resources); geology and soils; hazards and hazardous materials; hydrology and water quality; land use, planning, and policies; noise; traffic and transportation; and utilities and service systems. The impact analysis presented in this EIR assumes that these APMs would be implemented as part of the Proposed Project; therefore, implementation of these measures is required to ensure that impacts from the Proposed Project are mitigated to the maximum extent feasible. Furthermore, in cases where APMs would not fully mitigate impacts, mitigation measures were added that would either strengthen or supersede the applicable APM in order to further reduce impacts. As such, all APMs that are not superseded are included in the Mitigation Monitoring, Reporting, and Compliance Program.

TABLE 8-1
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Aesthetics				
Impact 4.1-3: Pulling/splicing sites during the construction period could result in temporary adverse impacts to visual quality. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.1-3:** SCE shall not place equipment on the pulling/splicing sites any sooner than two weeks prior to the required use. After each pulling/splicing site is no longer being used, SCE and/or its contractor shall clean up the site and restore in accordance with the SWPPP Plan.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
Impact 4.1-6: If night lighting is required during construction, the Proposed Project could adversely affect nighttime views in the project area. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.1-6: Reduce construction night lighting impacts.** SCE shall design and install all lighting at project facilities, including construction and storage yards and staging areas, such that light bulbs and reflectors are not visible from public viewing areas, lighting does not cause reflected glare, and illumination of the project facilities, vicinity, and nighttime sky is minimized. SCE shall submit a Construction Lighting Mitigation Plan to the CPUC for review and approval at least 90 days prior to the start of nighttime construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SCE shall not order any exterior lighting fixtures or components until the *Construction Lighting Mitigation Plan* is approved by the CPUC. The Plan shall include but is not limited to the following measures: • Lighting shall be designed so exterior lighting is hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary. • All lighting shall be of minimum necessary brightness consistent with worker safety. • High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.	SCE and its contractors to implement measure as defined.	SCE to submit Construction Lighting Mitigation Plan to CPUC for review. CPUC mitigation monitor to monitor compliance at least once per week.	Submit plan to CPUC at least 90 days prior to start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. During all phases of construction that include nighttime construction activities.
Impact 4.1-7: The Proposed Project transmission lines could create new sources of glare. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.1-7:** Non-specular conductors shall be installed to reduce the potential glare effects and the level of visual contrast between the subtransmission and transmission line and the landscape setting.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Immediately following installation of conductors.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Impact 4.1-8: The Proposed Project substation modifications could create new sources of glare. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.1-8:** A non-reflective or weathered finish shall be applied to all new structures and equipment installed at the Devers, Mirage, Concho, Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk Substations to reduce potential glare effects.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Immediately following installation of new structures and equipment at Project substations.
Agricultural Resources				
No APMs or mitigation required.				
Air Quality				
Impact 4.3-1: Construction activities would generate emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. *Significant unmitigable* (Class I)	**APM AQ-1.** Control Exhaust Emissions. Use ultra-low sulfur diesel fuel (e.g., fewer than 15 parts per million).	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
	APM AQ-2. Control Exhaust Emissions. Use of clean-burning on- and off-road diesel engines. Where feasible, heavy duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) will be utilized.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
	APM AQ-3. Control Exhaust Emissions. Construction workers will carpool when possible.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
	APM AQ-4. Control Exhaust Emissions. Restrict vehicle idling time to less than 10 minutes whenever possible.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
	APM AQ-5. Control Exhaust Emissions. Properly maintain mechanical equipment.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
	APM AQ-6. Minimize Diesel Particulate Matter. Use particle traps and other appropriate controls to reduce diesel particulate matter (DPM) where possible. Utilize equipment such as specialized catalytic converters (oxidation catalysts) to control approximately 20 percent of DPM, 40 percent of CO, and 50 percent of hydrocarbon emissions.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
	APM AQ-8. Construction Operations. As feasible, restrict construction operations during the morning hours and during high wind events, when NOx emissions are more	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	likely to contribute to O3 formation.			
	APM AQ-9. Construction Scheduling. Efficiently schedule staff and daily construction activities to minimize the use of unnecessary/duplicate equipment when possible.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
	APM AQ-10. Emissions Reduction. To reduce simultaneous project-related NOx, PM10, and PM2.5, emissions from on- and off-road heavy construction equipment, given the constraints of the construction schedule, SCE shall phase project construction, to the extent feasible, so that off-site disposal of excavated material from Proposed Project area grading and excavation does not occur simultaneously with transmission and subtransmission line and substation construction or upgrade activity (including, but not limited to, access road grading, excavation for tower and pole bases, crane pads, tower and pole delivery, or tower and pole erection). During transmission and subtransmission line construction, SCE shall phase the project construction schedule, to the extent feasible, so that grading and excavation for site access, tower and pole bases, or crane pads do not occur simultaneously with tower or pole delivery or erection.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
	Mitigation Measure 4.3-1a: Fugitive Dust Control Plan. SCE or its construction contractor shall prepare a fugitive dust control plan prior to conducting active construction activities. The plan shall include, at a minimum, the following fugitive dust control measures, which are based on Best Available Control Measures as outlined in the Coachella Valley Fugitive Dust Control Handbook. • *Backfilling*. Stabilize backfill material when not actively handling, during handling and at completion of activities. This may be achieved by mixing backfill soil with water prior to moving, dedicating a water truck or high capacity hose to backfilling equipment, emptying loader buckets slowly so that no dust plumes are generated and/or by the minimizing drop height from the loader bucket. • *Clearing and grubbing*. Maintain stability of soil through pre-watering of site prior to, during, and immediately after clearing and grubbing. This may be achieved by maintaining live perennial vegetation and desert	SCE or its contractors to prepare plan and implement measure as defined.	SCE to submit plan to CPUC for review. CPUC mitigation monitor to monitor compliance with plan at least once per week.	Submit plan to CPUC prior to commencement of construction activities. During all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	pavement where possible and by applying water in sufficient quantities to prevent generation of dust plumes. • *Cut and fill*. Pre-water soils prior to and following cut and fill activities. This may be achieved by pre-watering with sprinklers or water trucks or by using water trucks/pulls to water soil to depth of cut prior to subsequent cuts. • *Demolition*. Stabilize wind erodible surfaces, surface soil where support equipment and vehicles operate, and loose soil and demolition debris. • *Disturbed soil.* Stabilize disturbed soil throughout the construction site and between structures. This may be achieved by limiting vehicular traffic and disturbances on soil where possible or by applying water or a stabilizing agent to prevent generation of visible dust plumes. • *Earth-moving activities.* Pre-apply water to depth of proposed cuts or as necessary to maintain soils in a damp condition. Stabilize soils once earth-moving activities are complete. This may be achieved by installing upwind fencing to prevent material movement, or applying water or a stabilizing agent to prevent generation of visible dust plumes. • *Importing/exporting of bulk materials.* Stabilize material while loading to prevent fugitive dust emissions, maintain at least six inches of freeboard on haul vehicles, limit vehicular speeds to 15 miles per hour while traveling onsite, stabilize material while transporting and/or unloading to prevent fugitive dust emissions, and comply with Vehicle Code Section 23114. This may be achieved by using tarps or other suitable enclosures on haul trucks, checking belly dump seals regularly and removing any trapped rocks to prevent spillage, complying with track-out prevention requirements and by providing water while loading and unloading to prevent visible dust plumes. • *Landscaping.* Stabilize soils, materials, and slopes by applying water to materials, maintaining materials in a crusted condition, maintaining an effective cover over materials, stabilizing sloping surfaces using soil binders, or by hydroseeding areas prior to the rainy season. • *Staging areas.* Stabilize staging areas during use and			

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	at project completion. • *Stockpiles/bulk material handling.* Stabilize stockpiled materials or install and maintain wind barriers to less than 50 percent porosity on three sides of the pile, such that the barrier is equal to or greater than the pile height. Stockpiles within 100 yards of occupied buildings must not be greater than eight feet in height and stockpiles that are greater than eight feet in height and not covered must have a road bladed top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage. • *Traffic areas for construction activities.* Stabilize all off-road traffic and parking areas and ensure that onsite vehicular traffic does not exceed 15 miles per hour. Stabilize all haul routes and direct construction traffic over established haul routes. This may be achieved by applying gravel or paving haul routes and by using barriers to ensure that construction traffic only uses established routes. • *Trenching.* Stabilize surface soils where trencher or excavator and support equipment will operate and stabilize soils at completion of trenching activities. Pre-water soils prior to trenching and wash mud and soils from equipment at the conclusion of trenching activities to prevent crusting and drying of soil on equipment. • *Unpaved roads/parking lots.* Stabilize soils to meet the applicable standards and limit vehicular travel to established paved roads (haul routes) and unpaved parking lots. • *Weather monitoring/work practices.* Monitor current weather conditions and weather predictions from the SCAQMD's toll free wind forecast system and/or the National Weather Service. Cease all construction activities if fugitive dust emissions exceed 20 percent opacity or if the 100 foot visible plume restrictions cannot be met.			
	Mitigation Measure 4.3-1b: Exhaust Emissions Control Plan. To ensure and monitor implementation of APMs AQ-1 through AQ-6 and AQ-8 through AQ-10, SCE shall develop an Exhaust Emissions Control Plan outlining how compliance with each of these measures shall be achieved. This plan shall be submitted to the CPUC for review and shall be distributed to all employees	SCE and its contractors to implement measure as defined.	SCE to submit plan to CPUC for review. CPUC mitigation monitor to monitor compliance at least once per week.	Submit plan prior to commencement of construction activities. During all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	and construction contractors prior to commencement of construction activities. The CPUC construction monitor shall monitor compliance with the Plan periodically throughout the duration of construction activities.			
Impact 4.3-3: Construction activities would generate emissions of criteria pollutants that would be considered cumulatively considerable. *Significant unmitigable* (Class I)	Implement Mitigation Measures 4.3-1a (Fugitive Dust Control Plan) and 4.3-1b (Exhaust Emissions Control Plan).	See Mitigation Measures 4.3-1a and 4.3-1b.	See Mitigation Measures 4.3-1a and 4.3-1b.	See Mitigation Measures 4.3-1a and 4.3-1b.
Impact 4.3-4: Construction activities would generate emissions of criteria pollutants, exposing local sensitive receptors to pollutant concentrations. *Significant unmitigable* (Class I)	Implement Mitigation Measures 4.3-1a (Fugitive Dust Control Plan) and 4.3-1b (Exhaust Emissions Control Plan).	See Mitigation Measures 4.3-1a and 4.3-1b.	See Mitigation Measures 4.3-1a and 4.3-1b.	See Mitigation Measures 4.3-1a and 4.3-1b.
Impact 4.3-6: The Proposed Project would generate short-term and long-term emissions of GHGs that could exceed applicable thresholds of significance or conflict with applicable GHG reduction plans. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.3-6:** Within 60 days of completion of project construction, SCE shall enter into a binding agreement to purchase carbon offset credits from the California Climate Action Registry (CCAR), or any source that is approved by the CPUC and that is consistent with the policies and guidelines of the California Global Warming Solution Act of 2006 (AB 32), to offset a minimum of 30 percent of the net annualized increase of greenhouse gas emissions from the Proposed Project. The offsets identified in the binding agreement shall be implemented no later than six calendar months from completion of construction. The estimated amount of offsets required is 105.3 metric tons CO2e per year (i.e., 30 percent of 148 metric tons CO2e for years 1 through 5 and 30 percent of 392 metric tons of CO2e for years 6 through 30). However, the exact amount of greenhouse gas emissions to be offset may vary depending on whether any of the construction plans are modified. Within 60 days of completion of the Proposed Project, SCE shall submit a report for the CPUC's review and approval, which shall identify all construction- and operations-related emissions and the offset amounts that will be purchased from approved programs to result in a minimum 30 percent net reduction in annualized GHG	SCE shall enter into a binding agreement to provide GHG emissions offsets as defined in this measure.	SCE to provide a report to the CPUC documenting the source and amount of emission offsets.	Provide report within 60 days following completion of construction; implement offsets within six calendar months following completion of construction.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	emissions.			
Biological Resources				
Impact 4.4-1: Construction activities could result in adverse impacts to Coachella Valley milkvetch. *Less than significant with mitigation* (Class II)	**APM BIO-1.** Preconstruction Surveys. Preconstruction biological clearance surveys will be performed to minimize impacts to special-status plant and wildlife.	SCE and its contractors to implement measure as defined.	SCE to submit preconstruction survey results to CPUC for review.	Prior to commencement of construction activities.
	APM BIO-2. Minimize Vegetation Impacts. Every effort will be made to minimize vegetation removal and permanent loss at construction sites. If necessary, native vegetation will be flagged for avoidance.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
	APM BIO-5. Biological Monitors. Biological monitors will be assigned to the project in areas of sensitive biological resource. The monitors will be responsible for ensuring that impacts to special status species, native vegetation, wildlife habitat, or unique resources will be avoided to the fullest extent possible. Where appropriate, monitors will flag the boundaries of areas where activities need to be restricted in order to protect native plants and wildlife or special status species. Those restricted areas will be monitored to ensure their protection during construction.	SCE and its contractors to implement measure as defined.	SCE to provide resume of biological monitors to CPUC for review. CPUC mitigation monitor to monitor compliance.	Prior to commencement of construction activities. During all phases of construction activities.
	APM BIO-6. Worker Environmental Awareness Program. A Worker Environmental Awareness Program (WEAP) will be prepared. All construction crews and contractors will be required to participate in WEAP training prior to starting work on the project. The WEAP training will include a review of the special status species and other sensitive resources that could exist in the project area, the locations of sensitive biological resources and their legal status and protections, and measures to be implemented for avoidance of these sensitive resources. A record of all trained personnel will be maintained.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to attend first WEAP training session. SCE to submit records of trained personnel to CPUC.	Prior to commencement of construction activities.
	Mitigation Measure 4.4-1: Coachella Valley Milkvetch. Surveys for Coachella Valley milkvetch shall be performed within one year prior to construction, between February and early May, during the plant's growing and flowering season. GPS coordinates of plant locations shall be recorded with high precision (to within one meter), stored in an electronic database, and submitted to the USFWS and the CNDDB within one year of the survey. Plants shall be marked conspicuously with pin flags and avoided during construction to the greatest	SCE and its contractors to implement measure as defined.	SCE to submit survey results to CPUC, USFWS, and CNDDB. SCE to submit documentation of restored habitat to CPUC for review.	Submit survey results within one year of completion of surveys. Prior to commencement of project operations.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	extent possible. Following the completion of construction, areas compacted during temporary construction activities (e.g., lay-down areas, pulling sites) shall be scarified, if deemed necessary, to enhance germination of this species. Temporary and permanent impacts to habitat for the CV milkvetch shall be compensated for through conservation of suitable habitat for this species. The calculated replacement for habitat loss for the CV milkvetch shall be based on a ratio of 3:1 (compensation to impact) per acre for temporary impacts and 9:1 for permanent impacts, for an estimated total of 6 acres. Ratios reflect the limited habitat and low populations of this species across its range, and the loss of habitat available for this species in the project area. The replacement habitat shall be within the Whitewater Floodplain Conservation Area of the CVMSHCP. Total compensation funds shall include the costs of acquisition and long-term management, and shall be paid prior to the start of project operations. This replacement habitat shall mitigate for both direct and indirect impacts of construction and operations/management on this species, as well as the CV fringe-toed lizard (see Mitigation Measure 4.4-2, below), Palm Springs pocket mouse, Palm Springs round-tailed ground squirrel, CV giant sand-treader cricket, and Le Conte's thrasher.		CPUC mitigation monitor to monitor compliance at least once per week.	During all phases of construction activities.
Impact 4.4-2: Construction activities could result in adverse impacts to Coachella Valley fringe-toed lizard and flat-tailed horned lizard. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.4-2: Coachella Valley fringe-toed lizard and flat-tailed horned lizard.** Construction work within Coachella Valley fringe-toed lizard habitat shall adhere to the following measures: • As determined at the time of construction, depending upon existing habitat conditions and the results of the protocol-level surveys for the CV fringe-toed lizard, a survey for this species according to the approved USFWS and CDFG Coachella Valley fringe-toed lizard survey protocol shall be conducted to determine presence or absence of Coachella Valley fringe-toed lizards, within 48 hours of erecting an Environmental Sensitive Area (ESA) exclusion fence. • ESA exclusion fences shall enclose all construction areas in fringe-toed lizard habitat. The location of these fences shall be based on existing conditions and the	SCE and its contractors to implement measure as defined.	SCE to submit findings of protocol-level surveys to CPUC. SCE to submit resume of qualified biologist to CPUC. SCE to submit vegetation plan as well as documentation of USFWS approval of plan to CPUC. SCE to submit documentation of replacement habitat to CPUC for review. CPUC mitigation monitor to monitor compliance at least once per week.	Prior to commencement of construction activities. Prior to commencement of project operations. During all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	results of protocol-level surveys for this species, and a map indicating the proposed location of these fences shall be submitted to the USFWS for approval, prior to erecting them. At a minimum, ESA fences shall be erected along the proposed Farrell-Garnet alignment, on both sides of the Gene Autry Trail south of the UPRR. Fences shall be erected after one pre-construction survey (described in the previous bullet) is conducted, and shall be maintained to keep the Coachella Valley fringe-toed lizards from entering active work areas. Silt fencing shall be buried to a depth of eight to 12 inches. A second pre-construction survey within the ESA shall be conducted to remove any remaining fringe-toed lizards from the construction footprint. Generally, ESA fencing is anticipated to be erected along the Farrell-Garnet alignment. • SCE and/or its construction contractors shall retain and have available, the services of a CPUC authorized biologist who shall perform the duties of the biological monitor. The biological monitor shall be required to conduct a pre-construction survey of the project site and any associated staging areas; provide employee WEAP training (see APM BIO-6 [Worker Environmental Awareness Program], above); monitor the temporary ESA fence installation; and perform construction monitoring. The construction monitor shall ensure that the contractor maintains the integrity of the biological fencing during the entire construction duration. The authorized biologist shall have previous experience handling fringe-toed lizards. The authorized biologist shall submit a protocol for capture and release of Coachella Valley fringe-toed lizards prior to initiating survey methods. Capture of Coachella Valley fringe-toed lizards and flat-tailed horned lizards shall be allowed by net, noose, or by hand. A new pair of latex or synthetic gloves shall be used for each lizard handled. • If any Coachella Valley fringe-toed lizards of flat-tailed horned lizards are captured, they shall be released immediately in a mapped area approved by the USFWS prior to the pre-construction survey. The release area shall be searched for snakes, and if found, a different location shall be found. Lizards shall			

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	be released in the shade of a shrub. No lizards shall be in captivity or in transport for longer than 10 minutes after their initial capture within an enclosed construction area. Lizards shall be transported in clean, white, plastic five-gallon buckets. • All movement of construction vehicles outside of the ROW shall be restricted to pre-designated access or public roads. Access sites along Gene Autry Trail and in the Coachella Valley fringe-toed lizard critical habitat shall be designated on the ESA fencing map and approved by the USFWS, prior to construction. • If road stabilization is required for the temporary access roads, the materials used for stabilization shall consist of temporary, easily removable material (e.g. mats laid down on sand, rather than gravel). No gravel shall be dumped on the ROW in fringe-toed lizard habitat. • The real limits of construction within the ROW shall be predetermined, with activity restricted to and confined within those limits and placed on a map, submitted to the USFWS for their approval prior to construction. No paint or permanent discoloring agents shall be applied to rocks or vegetation to indicate survey or construction activity limits. • Construction and maintenance vehicles shall not exceed a speed of 10 miles per hour in Coachella Valley fringe-toed lizard habitat (on the access roads and road shoulders along the Gene Autry Trail roadway, and in designated Coachella Valley fringe-toed lizard critical habitat). • Construction operations within occupied Coachella Valley fringe-toed lizard habitat shall occur when this species is typically active, which is when the air temperatures one inch above the ground in the shade are between 96 degrees and 112 degrees Fahrenheit, preferably between April 1 and October 30, contingent upon activity being observed at a nearby reference population. Work may occur during the evening hours and outside the active season (when the temperatures are cooler and the electrical demand is lower), if the			

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	necessary clearance surveys are conducted during the appropriate temperatures, the silt fencing is maintained, and no Coachella Valley fringe-toed lizards have entered the project area. • Spoils shall be stockpiled in previously disturbed areas that have been examined for the presence of Coachella Valley fringe-toed lizards and flat-tailed horned lizards by the authorized biologist. Stockpile placement sites shall be mapped on the ESA fencing map and submitted to the USFWS for approval prior to beginning construction. • Existing sand-retaining lattice fences in the ROW shall be repaired or replaced. • At least one month prior to construction, a vegetation restoration plan shall be submitted to the USFWS for approval in the areas of occupied Coachella Valley fringe-toed lizard habitat (generally, on the east and west side of the Gene Autry roadway). Each plant that is destroyed due to construction in the ROW along the east and west side of Gene Autry Trail roadway shall be replaced and monitored for at least ten years, or other period of time approved by the USFWS, to ensure at least 60 percent replacement of the impacted Coachella Valley fringe-toed lizard habitat. • Clearance surveys shall be repeated if more than 72 hours elapse between work sessions, if any portion of a fence is removed or blown down, or if measurable rainfall occurs. • Temporary and permanent impacts to CV fringe-toed lizard habitat shall be mitigated through conservation of suitable habitat for this species. The calculated replacement for habitat loss for this species shall be based on a ratio of 3:1 (compensation to impact) per acre for temporary impacts and 9:1 for permanent impacts, for an estimated total of 6 acres. Ratios reflect the limited habitat and low populations of this species across its range, and include both the loss of habitat use by the species, and the adverse effect of raptor predation caused by the new raptor perch availability at			

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	the new poles. The replacement habitat shall be within the Whitewater Floodplain Conservation Area of the CVMSHCP. Total compensation funds shall include the costs of acquisition and long-term management, and shall be paid prior to the start of Proposed Project operations. This replacement habitat shall mitigate for both direct and indirect impacts of construction and operations/management on this species, as well as the Palm Springs pocket mouse, Palm Springs round-tailed ground squirrel, CV giant sand-treader cricket, Le Conte's thrasher, flat-tailed horned lizard, and CV milkvetch (habitat conserved through this measure may be the same as that conserved through Mitigation Measure 4.4-1 for the CV milkvetch).			
Impact 4.4-3: Construction activities could result in adverse impacts to Palm Springs round-tailed ground squirrel and Palm Springs pocket mouse. *Less than significant with mitigation* (Class II)	**APM BIO-4.** BMPs. Crews will be directed to use Best Management Practices (BMPs) where applicable. These measures will be identified prior to construction and incorporated into the construction operations.	SCE and its contractors shall implement measure as defined.	SCE to provide the list of BMPs to be implemented to CPUC. CPUC mitigation monitor to monitor compliance.	Prior to commencement of construction activities. During all phases of construction activities.
	Mitigation Measure 4.4-3: Palm Springs round-tailed ground squirrel colonies. SCE and/or its contractors shall flag and avoid all known Palm Springs round-tailed ground squirrel burrow colonies within the area of impact. To the extent feasible, ground squirrel colonies of unknown species within the project alignment shall also be avoided.	SCE and its contractors shall implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During all phases of construction activities.
Impact 4.4-4: Construction activities could result in adverse impacts to Coachella Valley giant sand-treader cricket. *Less than significant with mitigation* (Class II)	Implement Mitigation Measures 4.4-1 and 4.4-2.	See Mitigation Measures 4.4-1 and 4.4-2.	See Mitigation Measures 4.4-1 and 4.4-2.	See Mitigation Measures 4.4-1 and 4.4-2.
Impact 4.4-5: Construction activities may impact protected native, nesting birds. *Less than significant with mitigation* (Class II)	**APM BIO-7.** Avoid Impacts to Active Nests. SCE will conduct project-wide raptor surveys and remove trees, if necessary, outside of the nesting season (nesting season is usually February 1 to August 31). If a tree or pole containing a raptor nest must be removed during nesting season, or if work is scheduled to take place in close proximity to an active nest on an existing transmission tower or pole, SCE will coordinate with the CDFG and USFWS and obtain written verification prior to moving the	SCE and its contractors shall implement measure as defined.	SCE to submit results of survey to CPUC. If nests are moved, SCE to submit verification of CDFG and USFWS consultation to CPUC.	Prior to commencement of construction activities. Prior to moving any active nests during all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	nest.			
	Mitigation Measure 4.4-5: Nesting native birds. SCE and/or its contractors shall implement the following measures to avoid impacts on nesting raptors and other protected birds for activities that are scheduled during the breeding season (February 1 through August 31): • No more than two weeks before construction within each new construction area, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within 500 feet of construction sites where access is available. • If active nests are not identified, no further action is necessary. If active nests are identified during preconstruction surveys, a no-disturbance buffer shall be created around active raptor nests and nests of other special-status birds during the breeding season, or until it is determined that all young have fledged. Typical buffers are 500 feet for raptors and Le Conte's thrasher, and 250 feet for other nesting birds (e.g., waterfowl, and passerine birds). The size of these buffer zones and types of construction activities that are allowed in these areas could be further modified during construction in coordination with CDFG, and shall be based on existing noise and disturbance levels in the project area.	SCE and its contractors shall implement measure as defined.	SCE to submit results of survey to CPUC. CPUC mitigation monitor to monitor compliance.	Two weeks prior to commencement of construction within a new construction area, during all phases of construction. During all phases of construction.
Impact 4.4-6: Construction activities could result in direct and indirect impacts on burrowing owl. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.4-6: Burrowing owl.** No more than two weeks before beginning construction, a survey for burrows and burrowing owls shall be conducted by a qualified biologist within 500 feet of the project (access permitting), where suitable habitat is present. The survey shall conform to the protocol described by the California Burrowing Owl Consortium (1995), which includes up to four surveys on different dates if there are suitable burrows present. If unoccupied burrows are found within the survey area, they shall be collapsed outside of nesting season. If occupied owl burrows are found within the survey area, a determination shall be made by a qualified biologist, in consultation with the CDFG, as to whether or not work will affect the occupied burrows or disrupt reproductive	SCE and its contractors shall implement measure as defined.	SCE to submit resume of qualified biologist and survey results to CPUC for review. CPUC mitigation monitor to monitor compliance at least once per week.	Prior to commencement of construction activities. During all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	behavior. • If it is determined that construction will not affect occupied burrows or disrupt breeding behavior, construction shall proceed without any restriction or mitigation measures. • If it is determined that construction will affect occupied burrows during the non-breeding season (August through February), the subject owls shall be passively relocated from the occupied burrow(s) according to a plan approved by the CDFG. The plan shall include installation of one-way doors in occupied burrows at least 48 hours before the burrows are excavated, and shall provide for the owl's relocation to nearby lands that possess available nesting habitat. • If it is determined that construction will physically affect occupied burrows or disrupt reproductive behavior during the nesting season (March through July), then avoidance is the only mitigation available. Construction shall be delayed within 250 feet of occupied burrows until it is determined that the subject owls are not nesting or until a qualified biologist determines that juvenile owls are self-sufficient or are no longer using the natal burrow as their primary source of shelter.			
Impact 4.4-7: Operation of new subtransmission and transmission lines could impact raptors as a result of electrocution or collision. *Less than significant* (Class III)	**APM BIO-8.** Avian Protection. All transmission and subtransmission towers and poles will be designed to be raptor-safe in accordance with the Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006 (Avian Power Line Interaction Committee, 2006)	SCE and its contractors to implement measure as defined.	SCE to submit final transmission line designs demonstrating compliance with guidelines to CPUC.	Prior to commencement of construction activities.
Impact 4.4-8: New subtransmission and transmission line poles/towers could be used as perches by predatory birds, which could result in increased predation on special-status species in the project area. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.4-8: Anti-perching device.** Anti-perching devices shall be placed on the new subtransmission line poles and new transmission line towers and poles.	SCE and its contractors to implement measure as defined.	SCE to submit documentation of anti-perching devices to be installed on poles and towers. CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities. Immediately following tower and pole installation.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Impact 4.4-9: Construction and operation activities could impact active sand fields along the Farrell-Garnet 115 kV subtransmission line alignment. *Less than significant with mitigation* (Class II)	Implement Mitigation Measures 4.4-1 and 4.4-2.	See Mitigation Measures 4.4-1 and 4.4-2.	See Mitigation Measures 4.4-1 and 4.4-2.	See Mitigation Measures 4.4-1 and 4.4-2.
Impact 4.4-10: Construction activities could impact jurisdictional waters of the United States and waters of the State, including drainages and seasonal wetlands. *Less than significant with mitigation* (Class II)	**APM BIO-3.** Avoid Impacts to State and Federal Jurisdiction Wetlands. Construction crews will avoid impacting the streambeds and banks of streams along the route to the extent possible. If necessary, a Streambed Alteration Agreement (SAA) will be secured from the CDFG. Impacts will be mitigated based on the terms of the SAA. No streams with flowing waters capable of supporting special-status species will be expected to be impacted by the project.	SCE and its contractors to implement measure as defined.	If necessary, SCE to submit documentation of all SAAs to CPUC.	Prior to commencement of construction activities.
	Mitigation Measure 4.4-10: Wetlands. SCE and/or its construction contractors shall perform a wetland delineation and incorporate the results into the final design of subtransmission lines and access roads. The project shall be modified to minimize disturbance of Whitewater Wash, whenever feasible. In the event of any project changes that involve ground disturbance outside of the boundary of the existing wetland delineation, a new wetland delineation shall be performed. Where jurisdictional wetlands and other waters cannot be avoided, to offset temporary and permanent impacts that occur as a result of the project, mitigation shall be provided through the following mechanisms: • Purchase or dedication of land to provide wetland preservation, restoration, or creation. If restoration is available and feasible, then a mitigation replacement ratio of at least 2:1 shall be used. If a wetland needs to be created, at least a 3:1 ratio shall be implemented to offset losses. Where practical and feasible, onsite mitigation shall be implemented. • A wetland mitigation and monitoring plan shall be developed by a qualified biologist or wetland scientist in coordination with CDFG, USFWS, USACE, and/or RWQCB that details mitigation and monitoring obligations for temporary and permanent impacts to wetlands and other waters as a result of construction	SCE and its contractors to implement measure as defined.	SCE to submit wetland delineation and final designs demonstrating wetland avoidance to CPUC. For wetland impacts that cannot be avoided, SCE to submit documentation of wetland offsets to CPUC. SCE to submit wetland mitigation and monitoring plan to CPUC and applicable regulatory agencies for review.	Prior to commencement of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	activities. The plan shall quantify the total acreage lost, describe mitigation ratios for lost habitat, annual success criteria, mitigation sites, monitoring and reporting requirements, and site specific plans to compensate for wetland losses resulting from the project. The mitigation and monitoring plan shall be submitted to the appropriate regulatory agencies for approval. The plan and documentation of such agency approval shall be submitted to the CPUC prior to construction.			
Impact 4.4-12: The Proposed Project could conflict with provisions set forth in the Coachella Valley Multi-Species Conservation Plan. *Less than significant with mitigation* (Class II)	Implement Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10.	See Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10.	See Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10.	See Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10.
Cultural Resources				
Impact 4.5-2: Project construction could adversely affect the Hoon wit ten ca va (Garnet Hill), a Native American cultural resource. *Less than significant with mitigation* (Class II)	**APM CUL-1.** Native American Consultations. Continued consultation and communication with interested Native American community to understand the concerns of Native American members in identifying measures that would prevent direct and indirect impacts. One such measure may include the following: if previously unidentified archaeological resources are unearthed during construction activities, construction will be halted in that area and directed away from the discovery, until a qualified archaeologist assesses the significance of the resource. The archaeologist would recommend appropriate measures to record, preserve, or recover the resources.	SCE and its contractors to implement measure as defined.	SCE to submit updates on Native American Consultations to CPUC on a quarterly basis.	Prior to and throughout all phases of construction activities.
	APM CUL-6. Garnet Hills Native American Cultural Resource. Appropriate measures, if deemed necessary, would be developed in consultation with Native American community members, as recommended by the NAHC, to address potential impacts to the Garnet Hills Native American cultural resource.	SCE and its contractors to implement measure as defined.	See Mitigation Measure 4.5-2.	See Mitigation Measure 4.5-2
	Mitigation Measure 4.5-2: Additional consultation shall be conducted with Native American community members regarding Hoon wit ten ca va (Garnet Hill). An agreement document that addresses potential impacts to this	SCE and its contractors shall implement measure as defined.	SCE to submit signed agreement to CPUC for review. CPUC mitigation monitor to	Prior to commencement of construction activities. During all phases of

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	resource and sets forth an agreement concerning how to minimize impacts shall be created and signed by the tribes and SCE, and shall be submitted to the CPUC as documentation that the consultation has occurred.		monitor compliance.	construction activities.
Impact 4.5-3: Project construction could adversely affect cultural resources CA-RIV-785, 33-15429, and 33-15430. *Less than Significant with Mitigation* (Class II)	**APM CUL-3.** Construction Monitoring. All ground-disturbing activities occurring along the Proposed Mirage-Santa Rosa 115 kV Subtransmission Line Alternative (Route 4) would be monitored by a qualified archaeologist. The route is highly sensitive for cultural resources.	SCE and its contractors to implement measure as defined.	SCE to submit resume of qualified archeologist to CPUC for review. CPUC mitigation monitor to monitor compliance.	Prior to commencement of construction activities. During all ground disturbing activities along the proposed Mirage-Santa Rosa 115 kV alignment.
	APM CUL-4. Data Recovery Plan. An evaluation and data recovery plan shall be developed to address impacts to CA-RIV-785, 33-15429, and 33-15430.	SCE and its contractors to implement measure as defined.	SCE to submit data recovery plan to CPUC for review. (*see also Mitigation Measure 4.5-3b*)	Prior to commencement of construction activities.
	APM CUL-5. Cultural Resources Plan. A cultural resource management plan shall be developed to prevent operational impacts to the cultural resource located between the Mirage Substation and I-10.	SCE and its contractors to implement measure as defined.	SCE to submit cultural resources plan to CPUC for review. (*see also Mitigation Measure 4.5-3b*)	Prior to commencement of construction activities.
	Mitigation Measure 4.5-3a: Avoid and protect archaeological resources. SCE shall narrow the construction zone to avoid potentially significant archaeological resources CA-RIV-785, 33-15429, and 33-15430 if feasible. The resources shall be designated as Environmentally Sensitive Areas (ESAs) to ensure avoidance. Protective fencing or other markers shall be erected around ESAs prior to any ground disturbing activities; however, such ESAs shall not be identified specifically as cultural resources, in order to protect sensitive information and to discourage unauthorized disturbance or collection of artifacts.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During all phases of construction activities.
	Mitigation Measure 4.5-3b: Preparation of treatment plan if avoidance is not feasible. If avoidance of sites CA-RIV-785, 33-15429, and 33-15430 is not feasible, prior to issuing any grading or excavation permits and prior to any project-related ground disturbing activities, a detailed Historic Properties Treatment Plan (HPTP) shall be prepared by SCE and implemented by a qualified archaeologist. The HPTP shall include a research design and a scope of work for data recovery, in conformance	SCE and its contractors to implement measure as defined.	SCE to submit HPTP and resume of the archeologist that prepared the plan to CPUC for review. CPUC mitigation monitor to monitor compliance.	Prior to commencement of any ground disturbing activities. During all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	with APM CUL-4, or additional treatment of potentially significant archaeological sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection in the area of direct impact, and site documentation, with the aim to target the recovery of important scientific data contained in the portion(s) of the archaeological resource(s) to be impacted by the project. As specified in APM CUL-5, a long-term management plan shall also be developed by SCE for those resources that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. The HPTP shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and State repositories, libraries, and interested professionals.			
	Mitigation Measure 4.5-3c: Due to the sensitivity of the project area for Native American resources, in addition to archaeological monitoring as specified in APM CUL-3, at least one Native American monitor shall also monitor all ground-disturbing activities along the proposed Mirage-Santa Rosa 115 kV subtransmission line alignment. Selection of monitors by SCE shall be made by agreement of the Native American groups identified by the Native American Heritage Commission as having affiliation with the project area, with documentation of such agreement submitted to the CPUC.	SCE and its contractors to implement measure as defined.	SCE to provide CPUC with name and contact information for the designated Native American monitor. CPUC mitigation monitor to monitor compliance.	Prior to commencement of construction activities. During all ground disturbing activities along the proposed Mirage-Santa Rosa 115 kV alignment.
Impact 4.5-4: Project construction could adversely affect currently unknown cultural resources. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.5-4a:** Any accidental discovery of cultural resources during construction shall be evaluated by a qualified archaeologist. If the find is determined to be potentially significant, the archaeologist, in consultation with the CPUC and appropriate Native American group(s), shall develop a treatment plan. All work adjacent to the unanticipated discovery (estimated at 25 feet) shall cease until the qualified archaeologist has evaluated the discovery, and/or the treatment plan has been implemented.	SCE and its contractors to implement measure as defined.	SCE to suspend work and contact CPUC if archaeological resources are discovered. If resource is significant, submit site treatment plan and records of consultation with Native American representatives to CPUC.	During all phases of construction activities. Within 5 business days of determining a find is significant.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	Mitigation Measure 4.5-4b: An archaeologist meeting the Secretary of the Interior's Professional Qualification Standards shall be retained by SCE to oversee and implement the applicant proposed measures and mitigation measures stipulated in this Environmental Impact Report.	SCE and its contractors to implement measure as defined.	SCE to submit resume of archeologist to CPUC for review.	Prior to commencement of construction activities.
	Mitigation Measure 4.5-4c: Prior to any ground disturbing activity, those portions of the project area not surveyed because of low visibility or lack of access shall be surveyed by a qualified archaeologist. After additional archaeological survey is carried out, the archaeologists shall evaluate any cultural resources recorded during the course of the survey for their eligibility for listing on the National Register or California Register, make recommendations for treatment of these resources if found to be significant, and make recommendations concerning archaeological monitoring during construction in the survey areas.	SCE and its contractors to implement measure as defined.	SCE to submit findings of archeological surveys to CPUC for review.	Prior to commencement of construction activities.
Impact 4.5-5: The project could adversely affect unidentified paleontological resources. *Less than significant* (Class III)	**APM PA-1.** Paleontological Field Assessment. Conduct a paleontological field assessment of the finalized ROWs for the Proposed Project, as needed.	SCE and its contractors to implement measure as defined.	SCE to submit findings of paleontological field assessment to CPUC for review.	Prior to commencement of construction activities.
	APM PA-2. Paleontological Resources. Prior to construction, a paleontologist would salvage known, exposed paleontological resources. This would consist of collecting standard samples of fossiliferous sediments.	SCE and its contractors to implement measure as defined.	SCE to submit documentation of resources salvaged to CPUC for review.	Prior to commencement of construction activities.
	APM PA-3. Paleontological Monitoring. A paleontological monitor would be present during ground-disturbing activities within areas designated as having a high possibility for the presence of paleontological resources. The monitor would be empowered to temporarily halt or redirected construction activities to ensure avoidance of adverse impacts.	SCE and its contractors to implement measure as defined.	SCE to submit resume of paleontological monitor to CPUC for review. CPUC mitigation monitor to monitor compliance.	Prior to commencement of construction activities. During all phases of construction activities.
	APM PA-4. Salvage and Recovery of Paleontological Resources. Upon encountering a large deposit of bone, salvage of all bone in the area would be conducted in accordance with modern paleontological techniques.	SCE and its contractors to implement measure as defined.	If a large deposit of bone is discovered, SCE to notify CPUC of finding. CPUC mitigation monitor to monitor compliance.	During all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	APM PA-5. Transfer of Fossils to Museum. All fossils collected would be prepared to a reasonable point of identification. Itemized catalogs of all material collected and identified would be provided to a museum repository along with the specimens. A specimen repository would be arranged, in writing, with a museum prior to initiation of construction excavation.	SCE and its contractors to implement measure as defined.	SCE to submit documentation of specimen repository to CPUC for review.	Submit documentation of repository arrangement prior to commencement of construction activities.
	APM PA-6. Paleontological Reporting. A report documenting the results of the monitoring and salvage activities and the significance of the fossils would be prepared.	SCE and its contractors to implement measure as defined.	SCE to submit paleontological report to CPUC for review.	At the completion of construction activities.
Impact 4.5-6: Project construction could result in damage to previously unidentified human remains. *Less than significant* (Class III)	**APM CUL-2.** Discovery of Human Remains. If human remains are encountered during construction or any other phase of development, work in the area of the discovery must be halted in that area and directed away from the discovery. No further disturbance would occur until the county coroner makes the necessary findings as to origin, pursuant to Public Resources Code 5097.98-99, Health and Safety Code 7050.5. If the remains are determined to be Native American, then the NAHC would be notified within 24 hours, as required by Public Resources Code 5097. The Native American Heritage Commission (NAHC) would notify the designated Most Likely Descendants, who would provide recommendations for the treatment of the remains within 24 hours. The NAHC mediates any disputes regarding the treatment of remains.	SCE and its contractors to implement measure as defined.	If human remains are discovered, SCE is to notify the CPUC and Riverside County coroner within one hour. CPUC mitigation monitor to monitor compliance at least once a week.	During all phases of construction activities.
Geology and Soils				
Impact 4.6-1: Ground surface rupture of an active fault could damage the Proposed Project which, in turn, could pose a hazard to nearby structures or people. *Less than significant* (Class III)	**APM GEO-2.** Subsurface Trenching. Where appropriate, subsurface trenching along active fault traces would be required to ensure tower foundations are not placed on, or immediately adjacent to, these features. In addition, tower locations would be selected to accommodate anticipated fault offset, and minimize excessive tension in lines, should a fault movement occur**.**	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance during construction activities near active faults.	During all phases of construction activities.
Impact 4.6-2: Strong seismic ground shaking could cause damage to Proposed Project structures which, in turn, could pose a risk of loss, injury, or	**APM GEO-1.** Seismic Design for Ground Shaking. A geotechnical investigation of site soils and geologic conditions, coupled with engineering design, would identify the hazards and develop recommendations to support appropriate seismic designs to mitigate the	SCE and its contractors to implement measure as defined.	SCE to submit results of geotechnical investigations to CPUC for review.	Prior to commencement of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
death. *Less than significant* (Class III)	effects of ground shaking. Specific requirements for seismic design would be based on the IEEE 693 "Recommended Practices for Seismic Design of Substations."			
Hazards and Hazardous Materials				
Impact 4.7-1: Construction activities would require the use of certain materials such as fuels, oils, solvents, and other chemical products that could pose a potential hazard to the public or the environment if improperly used or inadvertently released. *Less than significant* (Class III)	**APM HAZ-1.** Hazardous Materials and Waste Handling Management. Hazardous materials used and stored onsite for the proposed construction activities - as well as hazardous wastes generated onsite as a result of the proposed construction activities – would be managed according to the specifications outlined below. • *Hazardous Materials and Hazardous Waste Handling*: A project-specific hazardous materials management and hazardous waste management program would be developed prior to construction of the project. The program would outline proper hazardous materials use, storage, and disposal requirements, as well as hazardous waste management procedures. The program would identify types of hazardous materials to be used during the project and the types of wastes that would be generated. All project personnel would be provided with project-specific training. This program would be developed to ensure that all hazardous materials and wastes are handled in a safe and environmentally sound manner. Hazardous wastes would be handled and disposed of according to applicable rules and regulations. Employees handling wastes would receive hazardous materials training and shall be trained in hazardous waste procedures, spill contingencies, waste minimization procedures and Treatment, Storage, and Disposal Facility (TSDF) training in accordance with OSHA Hazard Communication Standard and 22 CCR. SCE would use landfill facilities that are authorized to accept treated wood pole waste in accordance with HSC 25143.1.4(b). • *Construction Stormwater Pollution Prevention Plan (SWPPP)*: A project-specific construction SWPPP would be prepared and implemented prior to the start of construction of the Proposed Project. The SWPPP would utilize BMPs to address the storage and	SCE and its contractors to implement measure as defined.	SCE to submit documentation to the CPUC demonstrating that all construction personnel have undergone hazardous materials management training. SCE to submit a copy of the SWPPP to the CPUC for review. SCE to submit a copy of written procedures for transporting hazardous wastes to CPUC for review. SCE to submit a copy of the procedures for fueling and maintenance to CPUC for review. CPUC mitigation monitor to monitor compliance with procedures at least once per week during construction activities. SCE to submit a copy of the Emergency Release Response Procedures to CPUC for review.	Submit all applicable plans to CPUC prior to commencement of construction activities. Monitor compliance with plans during all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	handling of hazardous materials and sediment runoff during construction activities. • *Transport of Hazardous Materials:* Hazardous materials that would be transported by truck include fuel (diesel fuel and gasoline) and oil and lubricants for equipment. Containers used to stored hazardous materials would be properly labeled and kept in good condition. Written procedures for the transport of hazardous materials used would be established in accordance with U.S. Department of Transportation and Caltrans regulations. A qualified transporter would be selected to comply with U.S. Department of Transportation and Caltrans regulations. • *Fueling and Maintenance of Construction Equipment:* Written procedures for fueling and maintenance of construction equipment would be prepared prior to construction. Vehicles and equipment would be refueled onsite or by tanker trucks. Procedures would include the use of drop cloths made of plastic, drip pans, and trays, to be placed under refilling areas to ensure that chemicals do not come into contact with the ground. Refueling stations would be located in designated areas where absorbent pads and trays would be available. The fuel tanks also would contain a lined area to ensure that accidental spillage does not occur. Drip pans or other collection devices would be placed under the equipment at night to capture drips or spills. Equipment would be inspected daily for potential leakage or failures. Hazardous materials, such as paints, solvents, and penetrants, would be kept in an approved locker or storage cabinet. • *Emergency Release Response Procedures*: An Emergency Response Plan detailing responses to releases of hazardous materials would be developed prior to construction activities. It would prescribe hazardous materials handling procedures for reducing the potential for a spill during construction and would include an emergency response program to ensure quick and safe cleanup of accidental spills. All hazardous materials spills or threatened release, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of the quantity spilled,			

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	would be immediately reported if the spill has entered a navigable water, stream, lake, wetland, or storm drain, if the spill impacted any sensitive area including conservation areas and wildlife preserved, or if the spill caused injury to a person or threatens injury to public health. All construction personnel, including environmental monitors, would be aware of state and federal emergency response reporting guidelines.			
Impact 4.7-2: Project operations would require the use of certain materials such as fuels, oils, solvents, and other chemical products that could pose a potential hazard to the public or the environment if improperly used or inadvertently released. Less than significant (Class III)	**APM HAZ-3.** Spill Prevention, Counter Measure, and Control Plan (SPCC). In accordance with Title 40 of the CFR, Part 112, SCE would prepare an updated SPCC for appropriate substations within the Proposed Project. The plans would include engineered and operational methods for preventing, containing, and controlling potential releases, and provisions for quick and safe cleanup.	SCE and its contractors to implement measure as defined.	SCE to submit updated SPCC to CPUC to review.	Prior to commencement of project operations.
	APM HAZ-4. Hazardous Materials Business Plan (HMBPs). SCE would prepare and submit an updated HMBP for appropriate substations within the Proposed Project. The required documentation would be submitted to the Certified Unified Program Agency (CUPA). The HMBPs would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment.	SCE and its contractors to implement measure as defined.	SCE to submit a copy of the updated HMBP to CPUC.	Prior to commencement of project operations.
Impact 4.7-3: Construction activities could release previously unidentified hazardous materials into the environment. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.7-3:** SCE's Hazardous Substance Control and Emergency Response Plan (APM HYDRO-4) shall include provisions that would be implemented if any subsurface hazardous materials are encountered during construction. Provisions outlined in the plan shall include immediately stopping work in the contaminated area and contacting appropriate resource agencies, including the CPUC designated monitor, upon discovery of subsurface hazardous materials. The plan shall include the phone numbers of County and State agencies and primary, secondary, and final cleanup procedures. The Hazardous Substance Control and Emergency Response Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.	SCE and its contractors to implement measure as defined.	SCE to submit copy of plan to CPUC for review.	Prior to commencement of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Impact 4.7-7: Construction and operation of the Proposed Project could ignite dry vegetation and start a fire. *Less than significant with mitigation* (Class II)	**APM HAZ-2.** Fire Management Plan. The Fire Management Plan would be developed by SCE prior to start of construction.	SCE and its contractors to implement measure as defined.	SCE to submit a copy of the Fire Management Plan, including documentation of SCE's consultation with local fire departments, to the CPUC for review.	Prior to commencement of construction activities.
	Mitigation Measure 4.7-7: The Fire Management Plan required pursuant to APM HAZ-2 shall include provisions that require water tanks or other fire suppression devices to be sited at the project sites and be available for fire protection. The plan shall require construction vehicles to contain fire suppression equipment. SCE shall contact and coordinate with all applicable fire departments to determine minimum amounts of fire equipment to be carried on the vehicles and appropriate locations for the water tanks/fire suppression devices. The Fire Management Plan shall document SCE's consultation with the local fire departments. The Fire Management Plan shall be submitted to the CPUC for review and approval prior to the commencement of construction activities.	SCE and its contractors to implement measure as defined.	SCE to submit a copy of the Fire Management Plan, including documentation of SCE's consultation with local fire departments, to the CPUC for review.	Prior to commencement of construction activities.
Hydrology and Water Quality				
Impact 4.8-1: Construction activities could result in increased erosion and sedimentation and/or pollutant (e.g., fuel and lubricant) loading to surface waterways, which could increase turbidity, suspend soils, or otherwise decrease water quality in surface waterways. *Less than significant* (Class III)	**APM HYDRO-1.** Grading Activities. Grading activities would not commence if heavy rain is forecasted for the period of time of major earthmoving activities through compaction and stabilization of the site.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During all phases of construction activities involving grading.
	APM HYDRO-2A. Erosion Control and Drainage Plan. An engineered erosion control and drainage plan would be developed as part of the site grading plan. The plan would be developed in accordance with the County of Riverside Hydrology Manual and would address all construction activities associated with the project. The location of the discharge of site runoff for construction would be defined in final engineering and in consultation with Riverside County, the RWQCB, and the CDFG.	SCE and its contractors to implement measure as defined.	SCE to submit plan and documentation of consultation with Riverside County, the RWQCB, and the CDFG to CPUC for review.	Prior to commencement of construction activities.
	APM HYDRO-2B. Construction Erosion Control Plan. SCE shall develop an erosion control plan incorporating construction-phase measures to limit and control erosion	SCE and its contractors to implement measure as defined.	SCE to submit plan to CPUC for review.	Prior to commencement of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	and siltation. The erosion control plan shall include components such as phasing of grading, limiting areas of disturbance, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, and provision for revegetation or mulching. The plan shall also prescribe treatment measures to trap sediment once it has been mobilized, at a scale and density appropriate to the size and slope of the catchment.			
	APM HYDRO-2C. Environmental Training Program. An environmental training program would be established to communicate environmental concerns and appropriate work practices, including spill prevention and response measures, to all field personnel involved in the construction of the Proposed Project elements. A monitoring program would be implemented to ensure that the plans are followed throughout the period of construction.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to attend training program and to monitor compliance with program periodically during construction activities.	Prior to and during all phases of construction activities.
	APM HYDRO-3. Access Road Location. Prior to final engineering of the proposed access road, SCE would consult with Riverside County, CDFG, and the RWQCB regarding the location of the access road.	SCE and its contractors to implement measure as defined.	SCE to submit documentation of consultation with Riverside County, the RWQCB and the CDFG to CPUC for review.	Prior to commencement of construction activities.
	APM HYDRO-4. Hazardous Substance Control and Emergency Response Plan. SCE would prepare a Hazardous Substance Control and Emergency Response Plan, which would include preparations for quick and safe cleanup of accidental spills. This plan would be submitted to agencies with the grading permit application. It would prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and would include an emergency response program to ensure quick and safe cleanup of accidental spills. The plan would identify areas where refueling and vehicle maintenance activities and storage of hazardous materials, if any, would be permitted. Oil-absorbent materials, tarps, and storage drums would be used to contain and control any minor releases of mineral oil.	SCE and its contractors to implement measure as defined.	SCE to submit Hazardous Substance and Emergency Response Plan to CPUC for review.	Prior to commencement of construction activities.
Impact 4.8-4: Proposed Project construction activities could impact local drainage patterns, or the course of a given stream, resulting in substantial on- or off-	**Mitigation Measure 4.8-4a:** In addition to measures required by APM HYDRO-1, SCE shall ensure that the construction foreman checks daily weather forecasts when construction is occurring within the Whitewater River Wash. Any precipitation forecast shall require the	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During construction activities within the Whitewater River Wash.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
site erosion or sedimentation. *Less than significant with mitigation* (Class II)	construction contractor to ensure erosion control BMPs identified in the SWPPP are properly installed and shall ensure that the construction site is clear of equipment and debris.			
	Mitigation Measure 4.8-4b: Regarding the engineered erosion control and drainage plan developed as part of the site grading plan (APM HYDRO-2A), SCE shall conduct a topographic and gradient survey of the Whitewater River Wash both upstream and downstream of the proposed pole(s) replacement location within the wash. Post construction topography and gradient of the Whitewater River Wash shall be contoured to match the existing conditions, to ensure that the drainage pattern is not altered in a manner that would cause on- or off-site erosion or sedimentation.	SCE and its contractors to implement measure as defined.	SCE to submit results of topographic and gradient survey to CPUC for review. CPUC mitigation monitor to inspect compliance.	Survey results to be submitted prior to construction activities within the Whitewater River Wash. Inspection to be performed following completion of grading activities within the wash.
Land Use, Planning, and Policies				
Impact 4.9-2: The Proposed Project could conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the Proposed Project adopted for the purpose of avoiding or mitigating an environmental effect. *Less than significant* (Class III)	**APM LU-1.** Aeronautical Considerations. As indicated in the Study of Aeronautical Considerations (2007), SCE would submit notice to the FAA electronically, in accordance with FAA procedures and as far in advance of construction as possible.	SCE and its contractors to implement measure as defined.	SCE to provide documentation to CPUC demonstrating that the FAA has been notified of project construction.	Prior to commencement of construction activities.
Impact 4.9-3: The Proposed Project could conflict with provisions set forth in the Coachella Valley Multiple Species Conservation Plan. *Less than significant with mitigation* (Class II)	Implement Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10 (see Section 4.4, Biological Resources).	See Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10.	See Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10.	See Mitigation Measures 4.4-1, 4.4-2, 4.4-3, 4.4-5, 4.4-6, 4.4-8, and 4.4-10.
Mineral Resources				
No APMs or mitigation required.				
Noise				
Impact 4.11-2: Transformer noise at Mirage Substation would increase noise levels in	**Mitigation Measure 4.11-2**: Mirage Substation. SCE shall ensure that noise levels associated with the Mirage Substation do not exceed the Riverside County noise	SCE and its contractors to implement measure as defined.	SCE to submit plan for compliance to Riverside County and CPUC for review and	Prior to commencement of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
the vicinity, potentially conflicting with applicable noise standards. *Less than Significant with Mitigation* (Class II)	standards for stationary sources. Noise control techniques may include, but not be limited to: locating the new transformer with as much setback from the existing residential properties as possible, use of noise walls or equivalent sound attenuation devices, and the use of a transformer with special noise control specifications designed in a way to specifically achieve acceptable regulatory noise standards. Prior to the installation of the new transformer, SCE shall submit to the CPUC and the County of Riverside for review and approval a plan that describes the specific measures that will be taken in order to comply with the County's stationary noise standards. Once the proposed transformer is operational, SCE shall retain an acoustical engineer to perform noise measurements in the vicinity of the residences west of Mirage Substation to verify that transformer noise levels comply with the County standards. Documentation of compliance shall be submitted to the CPUC and Riverside County. In the event the transformer noise levels violate the standards, additional noise control techniques shall be initiated to correct the violation.		approval. SCE to retain an acoustical engineer, and submit documentation of compliance to the CPUC and Riverside County.	Once the transformer is operational.
Impact 4.11-3: Construction activities could expose people and/or structures to substantial vibration levels. Less than significant (Class III)	**APM NOISE-1.** Noise Ordinances. SCE would comply with all applicable noise ordinance construction schedules. In the event the construction must occur outside the allowable work hours, a variance would be obtained.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance. SCE to provide CPUC with evidence that variance has been obtained if necessary.	During construction. Prior to commencement of nighttime construction activities.
Impact 4.11-5: Transformer noise at Mirage Substation could permanently increase ambient noise levels in the vicinity of the substation. *Less than Significant with Mitigation* (Class II)	Implement Mitigation Measure 4.11-2.	See Mitigation Measure 4.11-2.	See Mitigation Measure 4.11-2.	See Mitigation Measure 4.11-2.
Impact 4.11-6: Adverse noise levels would be generated during project construction. *Less than Significant with Mitigation* (Class II)	**APM NOISE-2.** Noise Control Equipment Maintenance. Maintain all noise-control equipment in good working order, in accordance with manufacturers' specifications.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During all phases of construction activities.
	APM NOISE-3. Handling of Noise Complaints. During construction, investigate, document, evaluate, and	SCE and its contractors to implement measure as	SCE to provide CPUC with a summary of all noise complaints	During construction.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	attempt to resolve legitimate project-related noise complaints. This would involve attempting to contact the source (person or persons) of the noise complaint within 24 hours; investigating to determine the project noise source(s) that led to the complaint; and taking all feasible measures to reduce the noise at the source, if the complaint is legitimate.	defined.	no later than 48 hours after each complaint is made. The summary shall also indicate how the complaint was handled.	
	Mitigation Measure 4.11-6a: To strengthen the intent of APM NOISE-2 and APM NOISE-3, the following noise reduction and suppression techniques shall be employed during project construction to minimize the impact of temporary construction-related noise on nearby sensitive receptors: • Comply with manufacturers' muffler requirements. • Notify residences in advance of the construction schedule and how many days they may be affected. Provide a phone number for a construction supervisor who would handle construction noise questions and complaints. • Minimize idling of engines; turn off engines when not in use, where applicable. • Shield compressors and other small stationary equipment with portable barriers when within 100 feet of residences. • Route truck traffic away from noise-sensitive areas where feasible.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance. SCE to provide CPUC with evidence that residences have been notified.	During construction. Prior to construction activities at any one location.
	Mitigation Measure 4.11-6b: In the event that nighttime (i.e., between 7:00 p.m. and 7:00 a.m.) construction activity is determined to be necessary; a nighttime noise reduction plan shall be developed by SCE and submitted to the CPUC for review and approval. The noise reduction plan shall include a set of site-specific noise attenuation measures that apply state of the art noise reduction technology to ensure that nighttime construction noise levels and associated nuisance are reduced to the most extent feasible. The attenuation measures may include, but not be limited to, the control strategies and methods for implementation that are listed below. If any of the following strategies are determined by SCE to not be feasible, an explanation as to why the specific strategy is not feasible shall be	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance. SCE to submit nighttime noise reduction plan to CPUC for review and approval.	During construction. Prior to commencement of nighttime construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	included in the nighttime noise reduction plan. • Plan construction activities to minimize the amount of nighttime construction. • Offer temporary relocation of residents within 200 feet of nighttime construction areas. • Temporary noise barriers, such as shields and blankets, shall be installed immediately adjacent to all nighttime stationary noise sources (e.g., drilling rigs, generators, pumps, etc.). • Install temporary noise walls that block the line of sight between nighttime activities and the closest residences.			
Population and Housing				
No APMs or mitigation required.				
Public Services				
Impact 4.13-1: Project construction activities could temporarily increase the demand for fire protection and emergency medical services. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.13-1:** SCE shall prepare and implement a Health and Safety Plan to ensure the health and safety of construction workers and the public during construction. The plan shall list procedures and specific emergency response and evacuation measures that would be required to be followed during emergency situations. The plan shall be submitted to the CPUC for approval prior to commencement of construction activities and shall be distributed to all construction crew members prior to construction and operation of the project.	SCE and its contractors to implement measure as defined.	SCE to submit Plan to CPUC for review and approval. CPUC mitigation monitor to monitor compliance at least once per week.	SCE to submit plan prior to commencement of construction activities. Monitor compliance during all phases of construction activities.
Impact 4.13-2: Project construction activities in proximity to public roadways could potentially affect vehicle access and fire department response times. *Less than significant with mitigation* (Class II)	**Mitigation Measure 4.13-2:** SCE shall coordinate with the emergency service providers of the applicable cities and Riverside County prior to construction to ensure that construction activities and associated lane closures would not significantly affect emergency response vehicles. SCE shall submit verification of its consultation with emergency service providers to the CPUC prior to the commencement of construction.	SCE and its contractors to implement measure as defined.	SCE to submit verification of its consultation with emergency service providers to the CPUC.	Prior to commencement of construction activities.
Recreation				
Impact 4.14-1: Construction of the proposed Mirage-Santa Rosa 115 kV Subtransmission line would temporarily disrupt	**APM REC-1.** Recreation Area Closures. When temporary short-term closures to recreational areas are necessary for construction activities, SCE would coordinate those closures with recreational facility owners. To the extent	SCE and its contractors to implement measure as defined.	SCE to submit verification of its consultation with nearby recreational facilities to the CPUC.	Prior to commencement of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
operations of the Tri-Palm Golf Course. *Less than significant* (Class III)	practicable, SCE would schedule construction activities to avoid heavy recreational use periods (e.g., holidays or tournaments). SCE would post notice of the closure onsite 14 calendar days prior to the closure.		CPUC mitigation monitor to monitor compliance.	During all phases of construction activities.
Transportation and Traffic				
Impact 4.15-1: Construction activities could adversely affect traffic and transportation conditions in the project area. *Less than significant with mitigation* (Class II)	**APM TRA-1.** Obtain Permits. If any work requires modifications or activities within local roadway ROWs, appropriate permits will be obtained prior to the commencement of construction activities, including any necessary local permits and encroachment permits.	SCE and its contractors to implement measure as defined.	SCE to submit copies of encroachment permits to CPUC.	Prior to commencement of construction activities.
	APM TRA-2. Traffic Management and Control Plans. Traffic control and other management plans will be prepared where necessary to minimize project impacts on local streets.	SCE and its contractors to implement measure as defined.	SCE to submit Traffic Management Plan to CPUC for review and approval. CPUC mitigation monitor to monitor compliance.	Prior to commencement of construction activities. Monitor compliance during all phases of construction activities.
	APM TRA-3. Minimize Street Use. Construction activities will be designed to minimize work on or use of local streets.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During all phases of construction activities.
	Mitigation Measure 4.15-1: SCE's Traffic Management and Control Plan, as required by APM TRA-2, shall include, at a minimum, the measures listed below. The Plan shall be submitted to the CPUC for approval and shall be distributed to all construction crew members prior to commencement of construction activities. The Plan shall: • Include a discussion of work hours, haul routes, work area delineation, traffic control and flagging; • Identify all access and parking restriction and signage requirements; • Require workers to park personal vehicles at the approved staging area and take only necessary project vehicles to the work sites; • Lay out plans for notifications and a process for communication with affected residents and landowners prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction	SCE and its contractors to implement measure as defined.	SCE to submit Traffic Management Plan to CPUC for review and approval. CPUC mitigation monitor to monitor compliance.	Prior to commencement of construction activities. Monitor compliance during all phases of construction activities.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
	schedule, the exact location and duration of activities within each street (i.e., which road/lanes and access point/driveways/parking areas would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints; • Include plans to coordinate all construction activities with emergency service providers in the area, consistent with Mitigation Measure 4.13-2 (see Section 4.13, *Public Services*). Emergency service providers would be notified of the timing, location, and duration of construction activities. All roads would remain passable to emergency service vehicles at all times; and • Identify all roadway locations where special construction techniques (e.g., night construction) would be used to minimize impacts to traffic flow.			
Impact 4.15-2: Project construction activities could increase potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways. *Less than significant with mitigation* (Class II)	Implement Mitigation Measure 4.15-1.	See Mitigation Measure 4.1-15.	See Mitigation Measure 4.1-15.	See Mitigation Measure 4.1-15.
Impact 4.15-3: Construction activities could result in delays for emergency vehicles on project area roadways. *Less than significant with mitigation* (Class II)	Implement Mitigation Measures 4.15-1 and 4.13-2.	See Mitigation Measures 4.1-15 and 4.13-2.	See Mitigation Measures 4.1-15 and 4.13-2.	See Mitigation Measures 4.1-15 and 4.13-2.
Impact 4.15-ALT2-1:* Alternative 2 underground line construction activities could adversely affect traffic conditions in the study area and could result in delays for emergency vehicles on roadways within the study area. *Less than significant with mitigation* (Class II) * Impact 4.15-ALT2-1 would be applicable to the approval of Alternatives 2, 3, 5, or 6.	**Mitigation Measure 4.15-ALT2-1:*** In addition to the requirements included in Mitigation Measure 4.15-1, the Traffic Management and Control Plan shall: • Include a requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access; and • Include a circulation and detour plan to minimize impacts to local street circulation when lane and/or road closures are required due to trenching activities. * Mitigation Measure 4.15-ALT2-1 would be applicable to the approval of Alternatives 2, 3, 5, or 6.	SCE and its contractors to implement measure as defined.	SCE to submit Traffic Management Plan to CPUC for review and approval. CPUC mitigation monitor to monitor compliance.	Prior to commencement of construction activities. Monitor compliance during all phases of construction activities that involve open trenching.

TABLE 8-1 (Continued)
MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM FOR THE DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT

Environmental Impact	Mitigation Measures Proposed in this EIR	Implementing Actions	Monitoring/Reporting Requirements	Timing
Impact 4.15-ALT2-2:* Trenching activities associated with construction of the underground portion of Alternative 2 could result in roadway damage along Vista Chino and Sunrise Way. *Less than significant with mitigation* (Class II) * Impact 4.15-ALT2-2 would be applicable to the approval of Alternatives 2, 3, 5, or 6.	**Mitigation Measure 4.15-ALT2-2:*** In order to reduce potential roadway damage impacts from trenching activities within public roadways, SCE and/or its contractors shall repair any damaged roadway to its original condition immediately after construction has completed. Photo documentation showing roadways prior to and following construction shall be submitted to the CPUC and applicable State and/or local agencies with jurisdiction of the roadways to demonstrate compliance with this measure. * Mitigation Measure 4.15-ALT2-2 would be applicable to the approval of Alternatives 2, 3, 5, or 6.	SCE and its contractors to implement measure as defined.	SCE to submit photo documentation showing roadways prior to and following construction activities. CPUC mitigation monitor to inspect compliance in the field.	Immediately following completion of roadway restoration. Monitor compliance once trenching is complete and all roadways have been restored.
Utilities and Service Systems				
Impact 4.16-1: Underground utility lines and/or facilities could be disturbed during Proposed Project construction activities. *Less than significant* (Class III)	**APM PUSVC-01.** Work Around High Pressure Gas Lines. No mechanical equipment will be permitted to operate within 3 feet of the Southern California Gas Company high-pressure pipelines, and any closer work must be done by hand.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During construction activities near the high-pressure pipelines.
	APM PUSVC-02. Monitoring by the Southern California Gas Company. A representative of the Southern California Gas Company must observe the excavation around or near their facilities to insure protection and to record pertinent data necessary for their operations.	SCE and its contractors to implement measure as defined.	CPUC mitigation monitor to monitor compliance.	During construction activities near the high-pressure pipelines.

Appendix A
Scoping Report

ESA

Scoping Report

SOUTHERN CALIFORNIA EDISON'S

Devers-Mirage 115 kV
Subtransmission System Split Project

Prepared for
California Public Utilities Commission

September 2008

Scoping Report

SOUTHERN CALIFORNIA EDISON'S

Devers-Mirage 115 kV
Subtransmission System Split Project

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SCOPING REPORT

Devers-Mirage 115 kV Subtransmission System Split Project Scoping Report

1. Introduction

This report provides an overview of the written and oral comments received by the California Public Utilities Commission (CPUC) during the public scoping period for the Environmental Impact Report (EIR) that the CPUC is preparing for the Devers-Mirage 115 kV Subtransmission System Split Project (the Proposed Project).[1]

CEQA Guidelines Section 15083 provides that a "Lead Agency may…consult directly with any person…it believes will be concerned with the environmental effects of the project." Scoping is the process of early consultation with the affected agencies and public prior to completion of a Draft EIR. Section 15083(a) states that scoping can be "helpful to agencies in identifying the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in an EIR and in eliminating from detailed study issues found not to be important." Scoping is an effective way to bring together and consider the concerns of affected State, regional, and local agencies, the project proponent, and other interested persons (CEQA Guidelines Section 15083(b)).

Scoping is not conducted to resolve differences concerning the merits of a project or to anticipate the ultimate decision on a proposal. Rather, the purpose of scoping is to help ensure that a comprehensive and focused EIR will be prepared that provides a firm basis for the decision-making process.

This report is intended for use by the public to have access to and understand the comments received during the scoping period. It includes verbal and written public comments received during the scoping period (April 15, 2008 to May 15, 2008). The CPUC will use this report as a tool to ensure the preparation of a comprehensive and focused EIR. Pursuant to CEQA Guidelines Section 15082, all public comments *will be considered*[2] in the EIR process.

[1] The California Public Utilities Commission is the lead agency under the California Environmental Quality Act (CEQA) for the preparation of an EIR for the Proposed Project.

[2] Comments not within the scope of CEQA will not be addressed through the CEQA Process.

2. Description of the Project

Project Summary

The EIR will examine the environmental impacts associated with construction and operation of the Devers-Mirage 115 kV Subtransmission System Split Project, and identify and evaluate a reasonable range of alternatives to the Proposed Project. The Proposed Project includes the following major elements:

- Replacement of approximately 5.3 miles of existing 115 kilovolt (kV) single-circuit subtransmission lines with new higher capacity double-circuit 115 kV subtransmission lines and replacement of support structures within existing SCE right-of-ways (ROWs) and franchise locations (public ROWs) between Farrell and Garnet Substations in the City of Palm Springs;
- Construction of a new 115 kV subtransmission line from Mirage Substation south to Interstate 10, adjacent to the east side of Tri-Palm Estates and within SCE's existing ROWs or franchise locations;
- Looping the existing Devers-Coachella 220 kV transmission line from an existing ROW to the south for approximately 0.8 of a mile on double-circuit lattice steel towers to Mirage Substation, located near the community of Thousand Palms;
- Installation of a new 280 megavolt amperes (MVA) 200/115 kV transformer, two new 220 kV circuit breakers, and five new 115 kV circuit breakers at SCE's existing Mirage Substation; and
- Subtransmission line reconfigurations at the intersections of Portola Avenue and Gerald Ford Drive, Bob Hope Drive and Dinah Shore Drive, and Varner Road and Date Palm Drive.

The Proposed Project would also include additional equipment and relay installations at Mirage, Concho**,** Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk Substations. SCE also proposes to transfer existing fiber optic cable to the new support structures and install new fiber optic and digital telecommunications equipment as part of the Proposed Project.

Project Location

The Proposed Project would be located within eastern Riverside County, including portions of the cities of Palm Springs, Rancho Mirage, Palm Desert, Cathedral City, and Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community.

3. Opportunities for Public Comment

Notification

On Tuesday, April 15, 2008, the CPUC published and distributed a Notice of Preparation (NOP) to advise interested local, regional, and State agencies, and interested public, that an EIR would be prepared for the Proposed Project. The NOP solicited both written and verbal comments on the

EIR's scope during a 30-day comment period and provided information on a forthcoming public scoping meeting. Additionally, the NOP presented the background, purpose, description, and location of the Proposed Project, potential issues to be addressed in the EIR, and contact information for additional information regarding the project.

In addition to the NOP, the CPUC notified the public about the public scoping meeting through newspaper legal advertisements and the project website. The NOP, newspaper legal advertisements, and the project website notification are presented in Appendices A, B, and C, respectively. Notifications provided basic project information, the date, time, and location of the scoping meeting, and a brief explanation of the public scoping process.

The CPUC published legal advertisements in The Desert Sun on Sunday, April 20, 2008, and Sunday, April 27, 2008, as well as The Desert Post Weekly on Thursday, April 24, 2008. Additionally, an electronic copy of the NOP was posted on the CPUC's website at: http://www.cpuc.ca.gov/Environment/info/esa/devers-mirage/devers.html.

The comment period extended through May 15, 2008. The public was encouraged to submit written comments on the scope, content, and format of the environmental document by mail, facsimile, or electronic mail to the CPUC.

Public Scoping Meeting

The CPUC conducted a scoping meeting on Tuesday, April 29, 2008. The public scoping meeting was held from 6:00 p.m. to 8:00 p.m. in the Mary Stuart Rogers Gateway Building at the California State University San Bernardino Palm Desert Campus at 37-500 Cook Street, Palm Desert, California. Approximately seven people attended the meeting, including two members of the public as well as Eric Chiang (CPUC), Douglas Cover, Matthew Fagundes, and Rachel Baudler (ESA), and Milissa Marona (SCE). The sign-in sheet from the scoping meeting is provided in Appendix D. Meeting attendees were encouraged to sign in and were provided with materials including presentation slides, a comment card, and a speaker card. Copies of the NOP were available upon request.

A presentation (Appendix E) was given which included an overview of the environmental review process, the regional context, project background, project objectives, project description, project alternatives, and role of the public comments. Following the presentation public comments were taken and documented by a note taker from ESA. These public comments are included in the *Comments Received during Scoping Period* section presented below. The attendees were encouraged to submit written comments.

4. Summary of Scoping Comments

Eight letters were received during the scoping period. Appendix F contains copies of the submitted written comments.

Commenting Parties

The following individuals and organizations submitted comments on the scope of the EIR. These comments are organized by date of receipt. See Appendix F for copies of the comment letters.

TABLE 1
PARTIES SUBMITTING COMMENTS DURING THE
DEVERS-MIRAGE 115 KV SUBTRANSMISSION SYSTEM SPLIT PROJECT EIR SCOPING PERIOD

Name	Organization	Date
Dave Singleton	Native American Heritage Commission	April 17, 2008
Steve Smith	South Coast Air Quality Management District	April 22, 2008
Sandy Hesnard	California Department of Transportation Division of Aeronautics	April 23, 2008
David M. Van Dorpe	US Army Corps of Engineers	May 6, 2008
Mark L. Johnson	Coachella Valley Water District	May 8, 2008
Mojahed Salama (1)	Riverside County Transportation Department	May 12, 2008
Mojahed Salama (2)	Riverside County Transportation Department	May 12, 2008
Thomas C. MacMaster	Individual	May 14, 2008

Comments Received During the Scoping Period

The following discussion summarizes both the oral and written comments received during the public scoping period. For more detailed information, please see Appendix F, which contains written comments submitted during the scoping period.

Specific comments are categorized by topic areas to enable easy review of the comments.

Aesthetics

- Commenter owns two hundred acres of undeveloped land along the east side of SCE's existing 115 kV ROW where the Mirage-Santa Rosa 115 kV portion of the Proposed Project would be constructed. The commenter expressed concern that the land east of this portion of the Proposed Project will be developed with up to 3,000 units within the next decade and that the Proposed Project could degrade views of the mountains from those units. The commenter supports the Mirage-Santa Rosa 115 kV Alternative Route #5 because it would require the new circuit to be underground and out of sight for most of the route. (Arthofer)

- Commenter would like to know if there will be "new support structures" and buildings constructed in the Thornhill Substation. If so, will the structures be taller than 15 feet. (MacMaster)

- Riverside County Transportation Department prefers that the transmission line be put underground when and if possible. (RCTD)

Air Quality

- Commenter requests a copy of the Draft EIR upon its completion, as well as all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. (SCAQMD)

- SCAQMD recommends that the Lead Agency use its CEQA Air Quality Handbook as guidance when preparing its air quality analysis. Alternatively, the lead agency may wish to consider using the California Air Resources Board approved URBEMIS 2007 Model, available on the SCAQMD website. (SCAQMD)

- The Lead Agency should identify and calculate any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project, from construction, demolition, and operations. This typically includes, but is not limited to:

    - construction-related air quality impacts such as emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips);

    - operation-related air quality impacts such as emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust); and

    - impacts from indirect sources, that is, sources that generate or attract vehicular trips; (SCAQMD)

- The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. (SCAQMD)

- The SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. When preparing the air quality analysis for the proposed project, SCAQMD recommends that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. (SCAQMD)

- The SCAQMD recommends that lead agencies for projects generating or attracting vehicular trips, especially heavy-duty diesel-fueled vehicles, perform a mobile source health risk assessment. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included. (SCAQMD)

- The SCAQMD CEQA Air Quality Handbook contains information to help the Lead Agency identify possible air quality mitigation measures for the project, measures for

controlling construction-related emissions, and other measures to reduce air quality impacts from land use projects. (SCAQMD)

- The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. (SCAQMD)

Cultural Resources

- Commenter recommends that CPUC contact the appropriate California Historic Resources Information Center to perform a record search to determine:

  - if a part or the entire area of potential effect (APE) has been previously surveyed for cultural resources;

  - if any known cultural resources have already been recorded in or adjacent to the APE;

  - if the probability is low, moderate, or high that cultural resources are located in the APE; and

  - if a survey is required to determine whether previously unrecorded cultural resources are present. (Native American Heritage Commission)

- If an archaeological inventory survey is required, the final state is the preparation of a professional report detailing the findings and recommendations of the records search and field survey. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure. The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological information center. (Native American Heritage Commission)

- CPUC should contact the NAHC for a Sacred Lands File (SLF) search of the project area and information on tribal contacts in the project vicinity who may have information on cultural resources in or near the APE. CPUC should provide NAHC site identification as follows: USGS 7.5-minute quadrangle citation with name, township, range and section. This will assist NAHC with the SLF. (Native American Heritage Commission)

- NAHC recommends that CPUC contact the Native American contacts on the list attached to their comment letter, to get their input on the effect of potential project impact. In many cases, a culturally-affiliated Native American tribe or person will be the only source of information about the existence of a cultural resource. (Native American Heritage Commission)

- Commenter states that lack of surface evidence of archeological resources does not preclude their subsurface existence. (Native American Heritage Commission)

- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per CEQA §15064.5 (f) of the California Code of Regulations (CEQA Guidelines). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. (Native American Heritage Commission)

- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans. (Native American Heritage Commission)

- Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans. CEQA Guidelines §15064.5(d) requires the lead agency to work with the Native Americans identified by the NAHC if the Initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American groups, identified by the NAHC, to ensure the appropriate and dignified treatment of Native American human remains and any associated grave goods. Health and Safety Code §7050.5, Public Resources Code §5097.98 and CEQA Guidelines §15064.5(d) mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. (Native American Heritage Commission)

- Lead agencies should consider avoidance, as defined in CEQA Guidelines §15370 when significant cultural resources are discovered during the course of project planning or execution. (Native American Heritage Commission)

Hydrology and Water Quality

- The project lies within and outside the area of the Whitewater River Basin Thousand Palms Flood Control Project, which will provide regional flood control to a portion of the Thousand Palms area. Coachella Valley Water District (CVWD) is currently in the design phase of this flood control project. Upon completion of the design phase, developers and property owners within the area may be required to dedicate right-of-way for regional flood control facilities and/or participate in the financing of a portion of these facilities. Until construction of the flood control project is complete, the developer shall comply with Riverside County Ordinance 458.12. (Coachella Valley Water District)

- The Proposed Project area is shown to be subject to shallow flooding and is designated Zone AO, with depths of one to three feet on the Federal Flood Insurance Rate maps. (Coachella Valley Water District)

- Prior to the approval of the proposed Subtransmission System project, the developer shall comply with Riverside County Ordinance 458.12 as amended in the preparation of on-site

flood protection facilities for this project. The developer will be required to pay fees and submit plans to CVWD as part of the flood management review. Flood protection measures shall include establishing a finished floor/slab elevation at or above the flood depth, constructing erosion protection for the foundation of the structures and allowing reasonable conveyance of off-site flow through the property. (Coachella Valley Water District)

- Construction of block walls may be in violation of Ordinance 458.12. When CVWD reviews a project for compliance with Ordinance 458.12, block walls are reviewed carefully and seldom found to be compatible with the goals of Ordinance 458.12. Block walls can cause diversion and concentration of storm flows onto adjacent properties and thus be in violation of Ordinance No. 458.12 and California drainage law. (Coachella Valley Water District)

- Walls must be constructed in a manner that does not increase the risk of off-site storm water flows on to adjacent properties. This can be accomplished by constructing open sections in the wall to accommodate flow-through. To achieve this, CVWD requires that at least 50 percent of the total lineal footage of the wall be constructed of wrought iron fencing or similar material that will provide for storm water flow-through. Construction materials used within the open sections must extend the entire vertical wall height so not to obstruct flow at the finish grade/surface. (Coachella Valley Water District)

- Project leaders will need to coordinate with Imperial Irrigation District (IID) and the County including the Economic Development Agency (EDA) on how the project will impact the EDA project on Monterey and Varner since this project includes relocation of (IID) poles. The EDA project is currently under construction and includes improving both Varner (Monterey to a few hundred feel east of Ramon) and Monterey (Varner to Ramon) to ultimate improvement, which includes Widening, Curb & Gutter and Sidewalks. (Riverside County Transportation Department)

- Commenter does not believe their project (the Whitewater River Basin flood control project) has any right-of-way conflicts with the Devers-Mirage project. (USACE)

- The Whitewater River Basin flood control project (WRBFCP) may impact some parcels. Commenter's consultant, PB World, had preliminary discussions with Mr. Pascual Garcia, ROW Transmission Specialist, regarding their project's levee alignments. WRBFCP has since made some changes to those alignments which they would like to coordinate with the design team for the Devers-Mirage project. Commenter requests to be provided a POC with whom they can share design information. (USACE)

Land Use

- The County has the northwest corner of the intersection of Dinah Shore and Bob Hope. The remaining three quarters are within the City of Rancho Mirage. (RCTD)

- Commenter expressed the importance of the proposed project to be consistent with the Coachella Valley Multiple Species Habitat Conservation Plan. (Taylor)

Noise

- Commenter states that current SCE workers and other subcontractors who use the Thornhill Substation generate noise from their vehicles (radios playing, motors running), which is a constant irritant to the residents adjacent to the substation. Additional buildings and worker-visits will cause more noise and be an eyesore in a residential neighborhood. (MacMaster)

Hazards

- California Public Utilities Code Section 21658 prohibits structural hazards associated with utility poles and lines near airports. Should any of the transmission lines be in the vicinity of Palm Springs International Airport or exceed 200 feet in height, a Notice of Proposed Construction or Alteration (Form 7460-1) will be required by the Federal Aviation Administration (FAA) in accordance with Federal Aviation Regulation, Part 77 "Objects Affecting Navigable Airspace." (Caltrans)

Traffic and Transportation

- Commenter would like to know if additional traffic (trucks, workers) will be using the Thornhill Substation on a regular basis after the project is completed. (MacMaster)

- The Proposed Project will need an encroachment permit anytime crews work or cross a county road. (Riverside County Transportation Department)

5. Consideration of Issues Raised in Scoping Process

A primary purpose of this Scoping Report is to document the process of soliciting and identifying comments from interested agencies and the public. The Scoping process provides the means by which the CPUC can determine those issues that interested participants consider to be the principal areas for study and analysis. Every issue that has been raised that falls within the scope of CEQA during scoping will be addressed in the EIR.

APPENDIX A

Notice of Preparation

STATE OF CALIFORNIA **ARNOLD SCHWARZENEGGER, Governor**

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

To: **State Clearinghouse, Responsible and Trustee Agencies, Property Owners & Interested Parties**

From: **Eric Chiang, Environmental Project Manager**

Subject: **NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT (EIR) AND SCOPING MEETING:**
Southern California Edison's Devers-Mirage 115 kV Subtransmission System Split Project (A.08-01-029)

Date: **April 15, 2008**

Description of Proposed Project. Southern California Edison (SCE), in its California Public Utilities Commission (CPUC) application (A.08-01-029), filed on January 31, 2008, seeks a Permit to Construct (PTC) the Devers-Mirage 115 kV Subtransmission System Split Project (Proposed Project), which includes the following major elements:

- replacement of approximately 5.3 miles of existing 115 kilovolt (kV) single-circuit subtransmission lines with new higher capacity double-circuit 115 kV subtransmission lines and replacement of support structures within existing SCE right-of-ways (ROWs) and franchise locations (public ROWs) between Farrell and Garnet Substations in the City of Palm Springs;
- construction of a new 115 kV subtransmission line from Mirage Substation south to Interstate 10, adjacent to the east side of Tri-Palm Estates and within SCE's existing ROWs or franchise locations;
- looping the existing Devers-Coachella 220 kV transmission line from an existing ROW to the south for approximately 0.8 of a mile on double-circuit lattice steel towers to Mirage Substation, located near the community of Thousand Palms;
- installation of a new 280 megavolt amperes (MVA) 200/115 kV transformer, two new 220 kV circuit breakers, and five new 115 kV circuit breakers at SCE's existing Mirage Substation; and
- replacement of four poles at the intersection of Bob Hope Drive and Dinah Shore Drive.

The Proposed Project would also include additional equipment and relay installations at Mirage, Concho**,** Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk Substations located in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of Riverside County, including the Thousand Palms community. SCE also proposes to transfer existing fiber optic cable to the new support structures and install new fiber optic and digital telecommunications equipment as part of the Proposed Project.

The objective of the Proposed Project is to maintain electric system reliability, enhance operational flexibility, and serve projected electrical demand in the cities of Palm Springs, Rancho Mirage, Cathedral City, Palm Desert, Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community. Construction of the project is scheduled to begin in the second quarter of 2009 and be operational by mid-2010.

Location of the Proposed Project.
The Proposed Project is located within eastern Riverside County, including portions of the cities of Palm Springs, Rancho Mirage, Palm Desert, Cathedral City, and Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community. See the map that follows this notice for an illustration of the project area.

Issues To Be Addressed In The EIR.
The EIR will address impacts of the construction, operation, and maintenance of the Proposed Project. The EIR

will also discuss and analyze alternatives to the Proposed Project. Alternatives to the Proposed Project that will be considered may include, but not be limited to, a No Project alternative as well as several alignment variations. Other alternatives may be added based on input received during this Notice of Preparation (NOP) scoping period or by the EIR team in response to potentially significant environmental impacts identified during the EIR process.

Specific areas of analysis the EIR will address include aesthetics, agriculture resources, air quality, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. Where feasible, mitigation measures will be recommended to avoid or reduce potentially significant impacts. Additionally, potential cumulative impacts of the Proposed Project, when considered in context with other past, present, or reasonably foreseeable future projects in the area, will be addressed in the EIR.

Information to be included in the EIR will also be based on input and comments received during the NOP review period. Decision-makers, responsible and trustee agencies under CEQA, property owners, and interested persons and parties will also have an opportunity to comment on the Draft EIR after it is published and circulated for public review. For additional information about the CEQA review of the Proposed Project, go to: **http://www.cpuc.ca.gov/Environment/info/esa/devers-mirage/devers.html**.

Public Scoping Period for this Notice of Preparation.
Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after the date of this notice. The public scoping period will close at 5:00 p.m. on **May 15, 2008**. Please include a name, address, and telephone number of a contact person for all future correspondence on this subject.

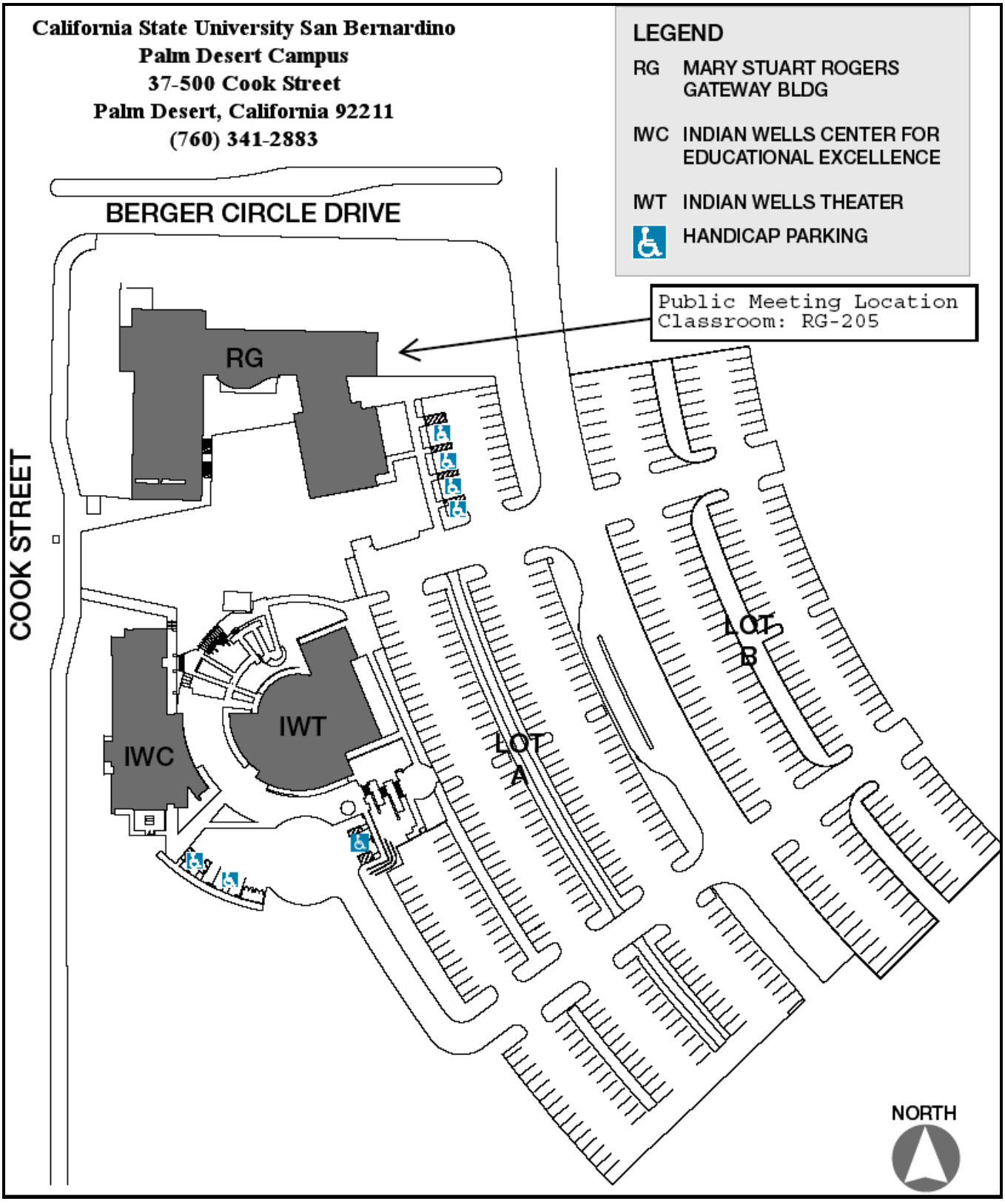
Please send your comments to:

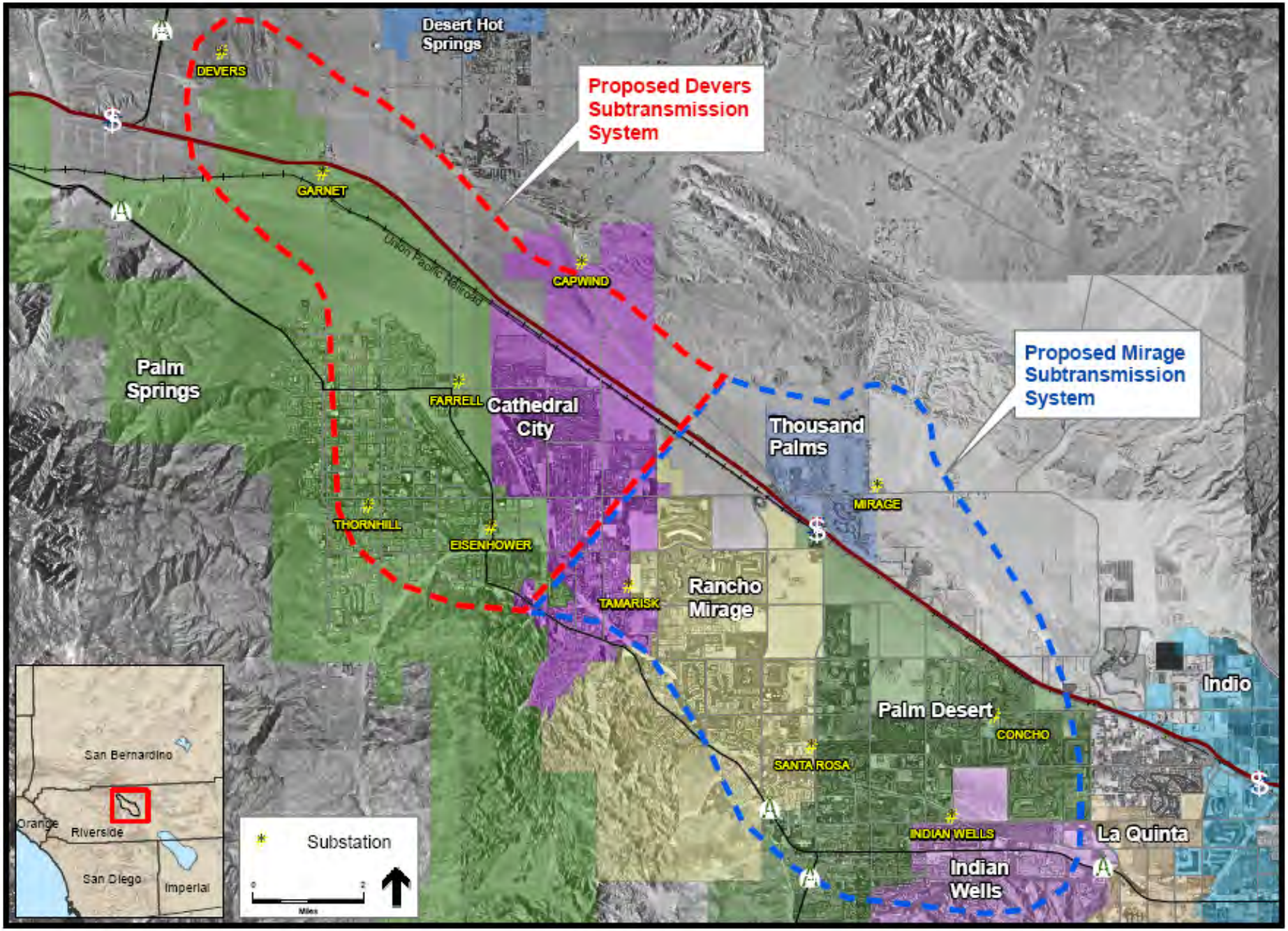
Mr. Eric Chiang
Devers-Mirage 115 kV Subtransmission System Split Project
c/o Environmental Science Associates
1425 N. McDowell Boulevard, Suite 105
Petaluma, CA 94954
Fax: (707) 795-0902
Voicemail: (707) 795-0940
E-mail: devers-mirage@esassoc.com

Scoping Meeting.
In order for the public and regulatory agencies to have an opportunity to ask questions and submit comments on the scope of the EIR, a meeting will be held during the NOP scoping period. The scoping meeting will start with a brief presentation providing an overview of the Proposed Project and alternatives identified to date. Subsequent to the presentation, interested parties will be provided an opportunity to ask questions and provide comments about the project. Written comment forms will be supplied for those who wish to submit written comments at the scoping meeting; written comments may also be submitted anytime during the NOP scoping period to the address, fax, or e-mail listed above. The scoping meeting will be held:

Tuesday April 29, 2008
6:00 p.m. – 8:00 p.m.
CSUSB Palm Desert Campus, Mary Stuart Rogers Gateway Building (Classroom RG-205)
37-500 Cook Street (b/w Gerald Ford Dr. and Frank Sinatra Dr.)
Palm Desert, CA 92211
(see map on following page)

REMINDER: Scoping comments will be accepted by fax, e-mail, or postmark through May 15, 2008. Please be sure to include your name, address, and telephone number.




Desert Hot Springs
DEVERS
Proposed Devers Subtransmission System
GARNET
Union Pacific Railroad
CAPWIND
Palm Springs
FARRELL
Cathedral City
Thousand Palms
Proposed Mirage Subtransmission System
MIRAGE
THORNHILL
EISENHOWER
TAMARISK
Rancho Mirage
Indio
Palm Desert
CONCHO
SANTA ROSA
INDIAN WELLS
La Quinta
Indian Wells
San Bernardino
Orange
Riverside
San Diego
Imperial
Substation
Miles

APPENDIX B

Newspaper Notices

PROOF OF PUBLICATION
(2015.5.C.C.P)

This is space for County Clerk's Filing Stamp

STATE OF CALIFORNIA
County of Riverside

Proof of Publication of

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of a printer of the, DESERT SUN PUBLISHING COMPANY a newspaper of general circulation, printed and published in the city of Palm Springs, County of Riverside, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Riverside, State of California under the date of March 24, 1988. Case Number 191236; that the notice, of which the annexed is a printed copy (set in type not smaller than non pariel, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

April 20th, 27th, 2008

All in the year 2008

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Palm Springs, California this ----30th, ---- day

of--------- April ----------, 2008

Signature

No. 1239

California Public Utilities Commission
Notice of Preparation of an Environmental Impact Report (EIR) and Scoping Meeting for the Devers-Mirage 115 kV Subtransmission System Split Project

Notice is hereby given that the California Public Utilities Commission (CPUC) has released a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Devers-Mirage 115 kV Subtransmission System Split Project, for public review and comment. The EIR will address site-specific impacts of the construction, operation, and maintenance of the Proposed Project. The EIR will also discuss and analyze alternatives to the Proposed Project. Information to be included in the EIR will also be based on input and comments received during the 30-day NOP scoping period that is now open until 5:00 p.m. on May 15, 2008. The NOP is available for public review on the project website at: http://www.cpuc.ca.gov/Environment/info/esa/devers-mirage/devers.html. The website includes further information on the environmental review process for this project, including copies of related public documents, project history, and announcements of all upcoming public meetings. A copy of the NOP may be requested by telephone at (707) 795-0940 or by email at devers-mirage@esassoc.com. Comments may be submitted in writing to: Mr. Eric Chiang, Devers-Mirage 115 kV Subtransmission System Split Project, C/O ESA, 1425 N. McDowell Boulevard, Suite 105, Petaluma, CA 94954, by fax to (707) 795-0902 or by email to devers-mirage@esassoc.com.

Additionally, the CPUC will hold a public scoping meeting on **Tuesday, April 29th at the CSUSB Palm Desert Campus, Mary Stuart Rogers Gateway Building (Classroom RG-205), 37-500 Cook Street (b/w Gerald Ford Dr. and Frank Sinatra Dr., Palm Desert, California between 6 p.m. and 8 p.m.** Following the end of the public scoping period, the CPUC will prepare a Draft EIR that will consider comments received. Decision-makers, responsible and trustee agencies under CEQA, property owners, and interested persons and parties will also have an opportunity to comment on the Draft EIR after it is published and circulated for public review.

Published: 4/20, 4/27/2008

PROOF OF PUBLICATION
(2015.5.C.C.P)

This is space for County Clerk's Filing Stamp

STATE OF CALIFORNIA
County of Riverside

Proof of Publication of

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the, DESERT POST WEEKLY, a newspaper of general circulation, printed and published weekly in the city of Cathedral City, County of Riverside, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Riverside, State of California under the date of September 4, 2001. Case Number 024022; that the notice, of which the annexed is a printed copy (set in type not smaller than non pariel), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

April 24th, 2008

All in the year 2008
I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Palm Springs, California this ----- 8th, ---- day of---------- May ----------, 2008

Signature

California Public Utilities Commission Notice of Preparation of an Environmental Impact Report (EIR) and Scoping Meeting for the Devers-Mirage 115 kV Subtransmission System Split Project

Notice is hereby given that the California Public Utilities Commission (CPUC) has released a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Devers-Mirage 115 kV Subtransmission System Split Project, for public review and comment. The EIR will address site-specific impacts of the construction, operation, and maintenance of the Proposed Project. The EIR will also discuss and analyze alternatives to the Proposed Project. Information to be included in the EIR will also be based on input and comments received during the 30-day NOP scoping period that is now open until 5:00 p.m. on May 15, 2008. The NOP is available for public review on the project website at: http://www.cpuc.ca.gov/Environment/info/esa/devers-mirage/devers.html. The website includes further information on the environmental review process for this project, including copies of related public documents, project history, and announcements of all upcoming public meetings. A copy of the NOP may be requested by telephone at (707) 795-0940 or by email at devers-mirage@esassoc.com. Comments may be submitted in writing to: Mr. Eric Chiang, Devers-Mirage 115 kV Subtransmission System Split Project, C/O ESA, 1425 N. McDowell Boulevard, Suite 105, Petaluma, CA 94954, by fax to (707) 795-0902 or by email to devers-mirage@esassoc.com.

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Published: 4/24/2008

APPENDIX C

Project Website Notification

STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION

SCE Devers-Mirage 115 kV Subtransmission System Split Project

(Application A.08-01-029, filed January 31, 2008)

Welcome to the California Public Utilities Commission (CPUC) website for the California Environmental Quality Act (CEQA) review of proposed construction of Southern California Edison (SCE)'s Devers-Mirage 115 kV Subtransmission System Split Project. An application for this project was submitted to the CPUC on January 31, 2008 (Application A.08-01-029). This site provides access to public documents and information relevant to the CEQA review process.

Files linked on this page are in Portable Document Format (PDF). To view them, you will need to download the free Adobe Acrobat Reader if it is not already installed on your PC.
Note: For best results in displaying the largest files (see sizes shown in parentheses below for files larger than 3.0 MB), right-click the file's link, click "Save Target As" to download the file to a folder on your hard drive, then browse to that folder and double-click the downloaded file to open it in Acrobat.

Background

BACKGROUND

SCE has filed an application with the CPUC to construct the Devers-Mirage 115 kV Subtransmission System Split Project. The CPUC is the CEQA lead agency. The Devers 115 kV Subtransmission System split portion of the project was approved by the California Independent System Operator (CAISO) in 2002 and the Devers-Coachella Valley 220 kV transmission line loop into Mirage Substation portion of the project was approved by CAISO in 2006.

The main components of the Devers-Mirage 115 kV Subtransmission System Split Project, as proposed by SCE, includes: the replacement of approximately 5.3 miles of existing single-circuit 115 kV subtransmission line with new higher capacity double-circuit 115 kV subtransmission line between Farrell and Garnet substations in the City of Palm Springs; construction of a new 115 kV subtransmission line from Mirage Substation south to Interstate 10 (I-10); looping the existing Devers-Coachella 220 kV transmission line from an existing right-of-way (ROW) for approximately 0.8 of a mile on double-circuit lattice steel towers (LSTs) to Mirage Substation. In addition, the project would include installation of one new 280 megavolt amperes (MVA) 220/115 kV transformer, two new 220 kV circuit breakers, and five new 115 kV circuit breakers at SCE's existing Mirage Substation.

The project would also include additional equipment and relays installations at Mirage, Concho, Indian Wells, Santa Rosa, Devers, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk substations located in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of Riverside County, including the Thousand Palms community. SCE also proposes to transfer existing fiber optic cable to the new support structures and install new fiber optic and digital telecommunications equipment as part of the project.

The project is needed to relieve existing thermal overload conditions on two 115 kV subtransmission lines and to resolve a forecasted voltage problem on the 220 kV transmission system that would exist by 2009. The total cost of the project is estimated to be approximately $33.3 million. Construction of the project is scheduled to begin in the second quarter of 2009 and be operational by mid-2010.

Environmental Review

On April 15, 2008 the CPUC has published a Notice of Preparation (NOP)of an Environmental Impact Report (EIR) for the Devers-Mirage 115 kV Subtransmission System Split Project. Click here to view the NOP.

Public Scoping Period for this Notice of Preparation

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after the date of this notice. The public scoping period will close at 5:00 p.m. on May 15, 2008. Please include a name, address, and telephone number of a contact person for all future correspondence on this subject.

Scoping Meeting

In order for the public and regulatory agencies to have an opportunity to ask questions and submit comments on the scope of the EIR, a meeting will be held during the NOP scoping period. The scoping meeting will start with a brief presentation providing an overview of the Proposed Project and alternatives identified to date. Subsequent to the presentation, interested parties will be provided an opportunity to ask questions and provide comments about the project. Written comment forms will be supplied for those who wish to submit written comments at the scoping meeting; written comments may also be submitted anytime during the NOP scoping period to the address, fax, or e-mail listed above. The scoping meeting will be held:

Tuesday April 29, 2008
6:00 p.m. – 8:00 p.m.
CSUSB Palm Desert Campus, Mary Stuart Rogers Gateway Building (Classroom RG-205)
37-500 Cook Street (b/w Gerald Ford Dr. and Frank Sinatra Dr.)
Palm Desert, CA 92211

Current Progress

The CPUC is currently in the process of preparing the EIR. The EIR, and other CEQA review documents will be posted on this website when they are available.

Proponent's Environmental Assessment (PEA)

The application and PEA for the Devers-Mirage 115 kV Subtransmission System Split Project may be viewed here. The application was deemed complete by CPUC on February 29, 2008.

To view the Application for the project click here.

To view the PEA for the project click here.

Other Documents Available

Application Deemed Complete Letter (February 29, 2008), click here to view.

For Additional Information

The CPUC, through its Environmental Review Team, manages environmental review of the project. To request additional information or to be added to the mailing list, please contact us by email, fax, or phone, as follows:

Project email: devers-mirage@esassoc.com
Project fax: (707) 795-0902
Voicemail: (707) 795-0940

The CPUC's Project Manager in the Energy Division's CEQA unit is:

Mr. Eric Chiang, CPUC Project Manager
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Tel. (415) 703-1956
Fax (415) 703-2200

To request additional information, please contact us by email at devers-mirage@esassoc.com

WEBSITE INFO

This page contains tables and is best viewed with Firefox or Internet Explorer.
Please report any problems to the Energy Division web coordinator.

Project Home Page - CPUC Environmental Information - CPUC Home - Top

APPENDIX D

Scoping Meeting Attendance Sheet

Southern California Edison's Devers-Mirage 115 kV Subtransmission System Split Project
Environmental Impact Report Public Scoping Meeting
Hosted by the California Public Utilities Commission (CPUC)

Meeting Location: CSUSB Palm Desert Campus, Mary Stuart Rogers Gateway Building (Classroom RG-205)
37-500 Cook Street (b/w Gerald Ford Dr. and Frank Sinatra Dr.)
Palm Desert, CA 92211

Date/Time: Tuesday, April 29, 2008 at 6:00 p.m. to 8:00 p.m.

mailer CD

[CARS=5]

Name	Affiliation	Address	Email address
MilissaMARONA	SCE	2244 walnut Grove Rosemead	MARONAM@SCE.COM
Joan Taylor	Sierra Club	1850 Smoke Tree* PS CA 92264 Ln	palmcanyon@dc.rr.com
Dan Arthofer	property owner	3 Terra Vista Ct. Rancho Mirage Ca	92270
Eric Chiang	CPUC	505 Van Ness Ave SF, CA. 94403	
RachelBamellar	ESA	225 Bush st SF 94104	

APPENDIX E

Scoping Meeting Presentation

Southern California Edison Company Devers-Mirage 115 kV Subtransmission System Split Project

California Public Utilities Commission
Public Scoping Meeting
for Preparation of an
Environmental Impact Report (EIR)

April 29, 2008
Palm Desert, California

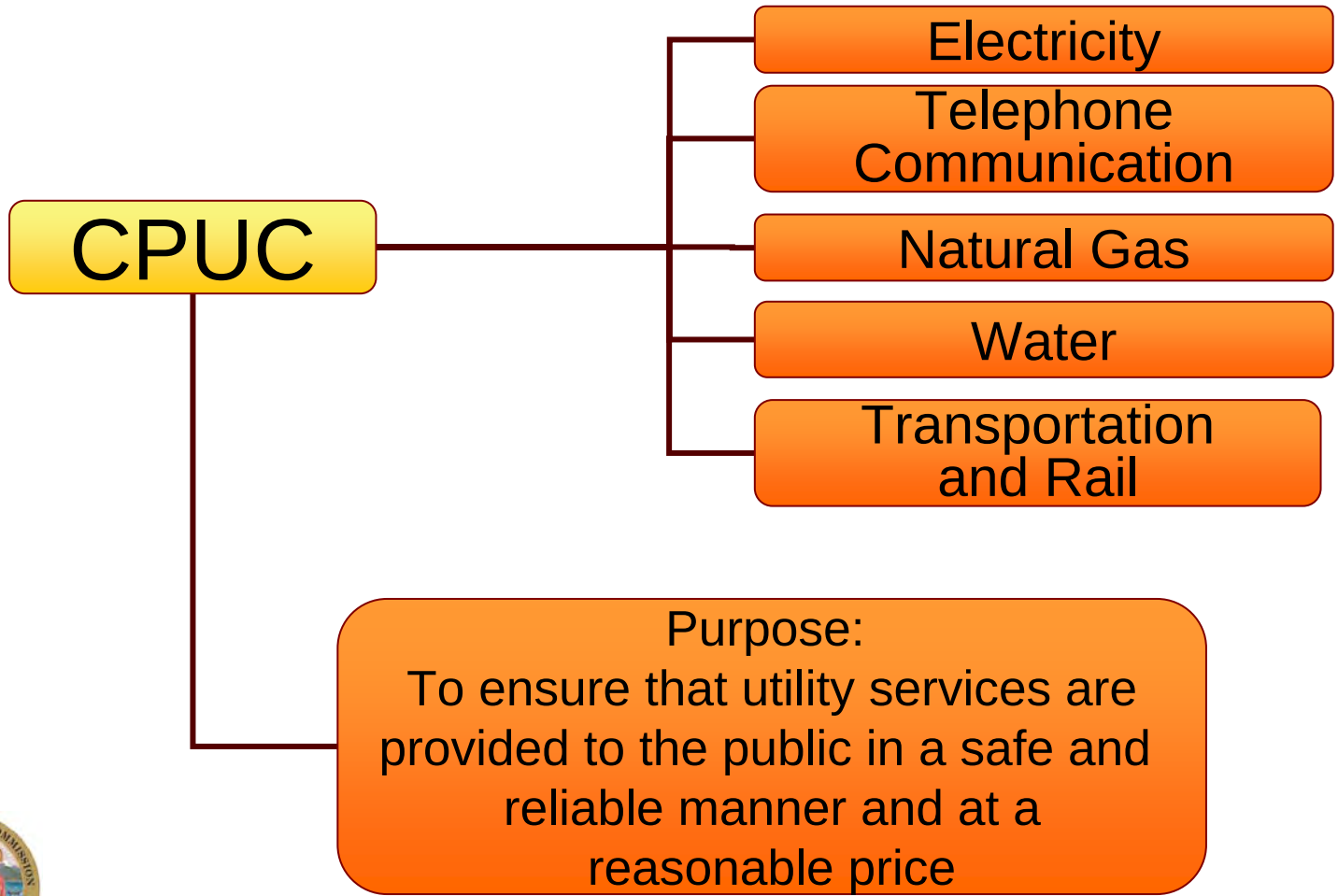
Key Players and their Roles

- Eric Chiang, CPUC: Lead Agency under the California Environmental Quality Act (CEQA)
- Doug Cover, Environmental Science Associates (ESA): Environmental consultant for CPUC
- Southern California Edison: Applicant

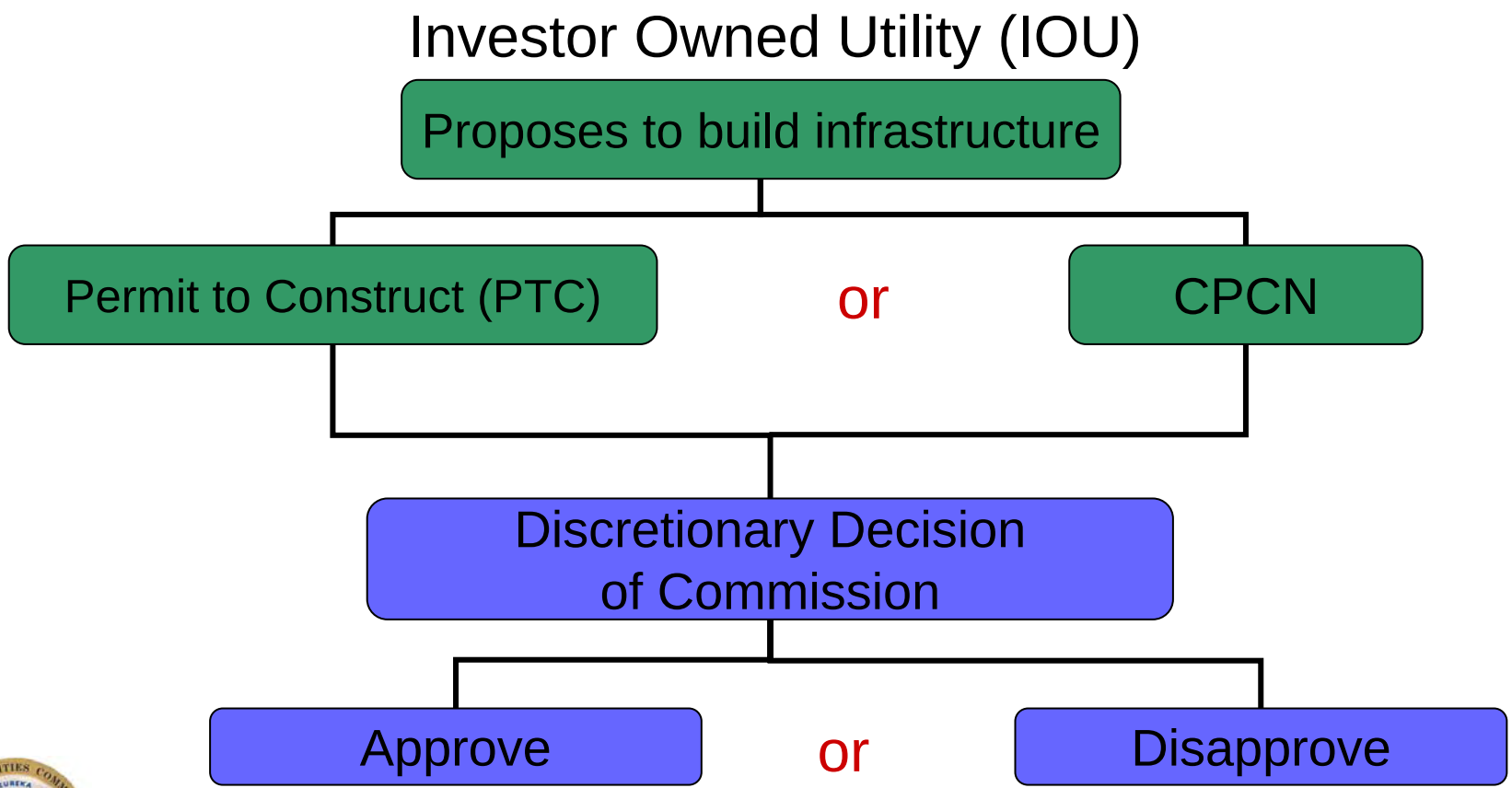
Meeting Agenda

- CPUC Review Process
- Project Overview
  - Background
  - Project Purpose and Need
  - Project Description
- Alternatives
- Next Steps
- Public Comment
  - Speaker cards
  - Comment forms

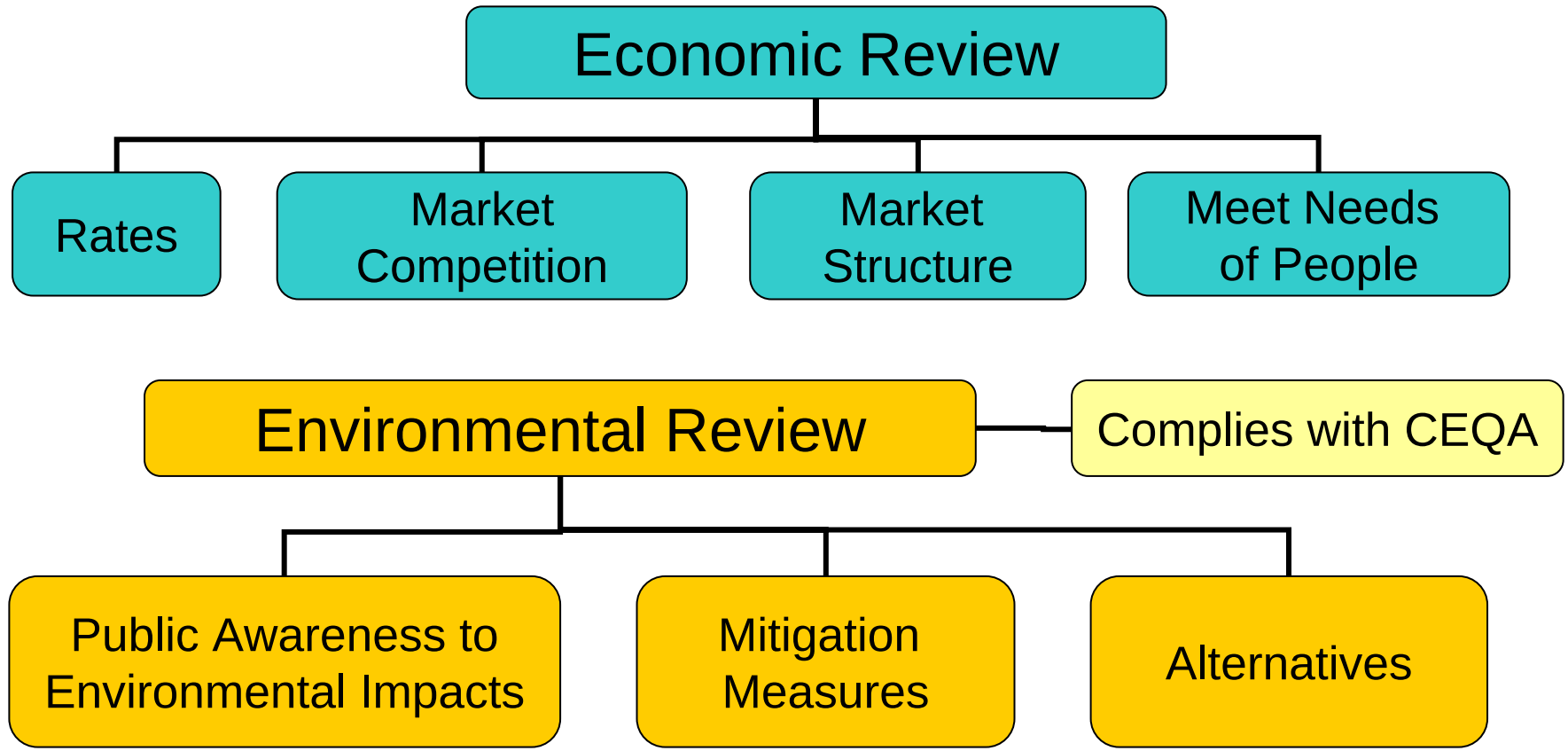
California Public Utilities Commission
Who does the CPUC regulate?



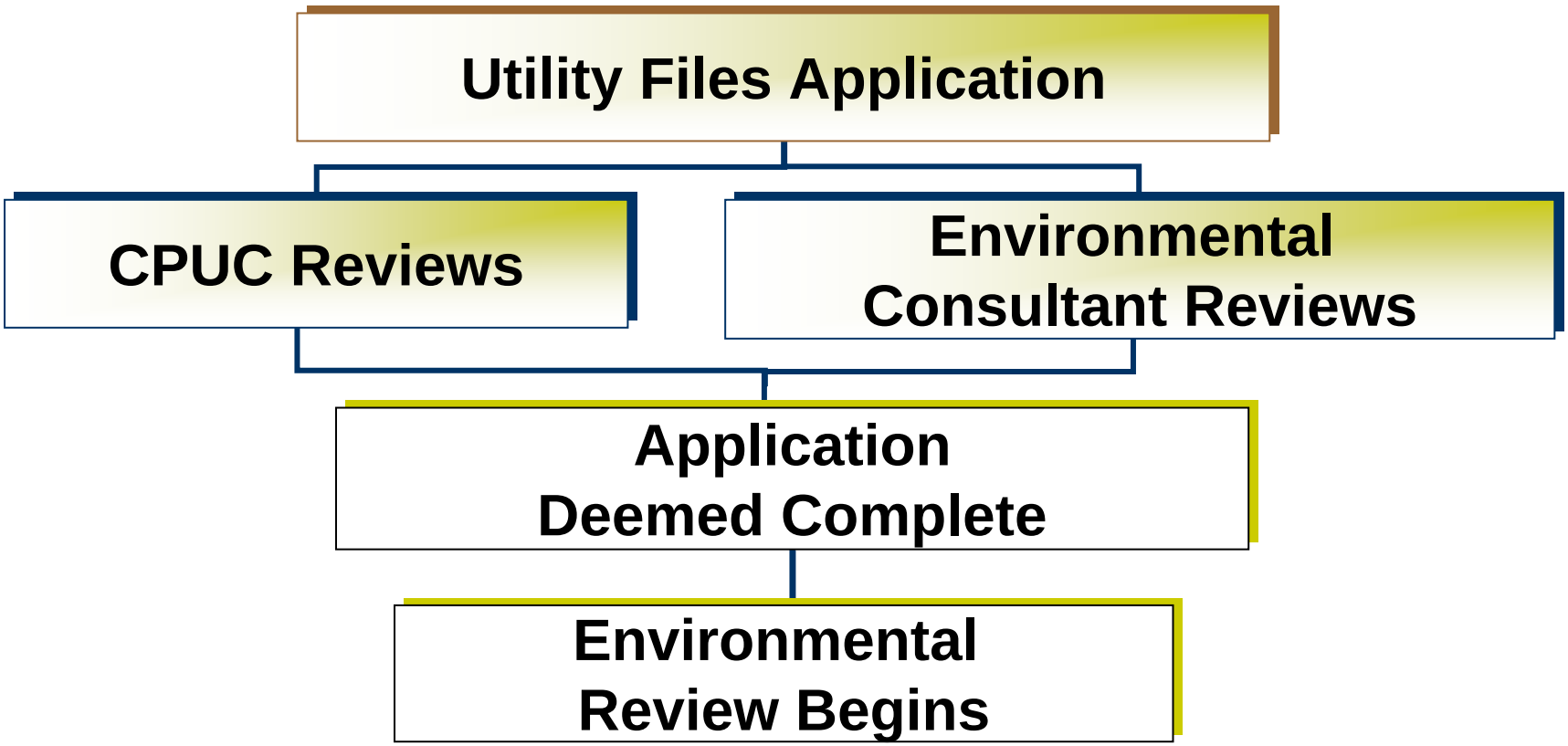
Certificate of Public Convenience and Necessity (CPCN)



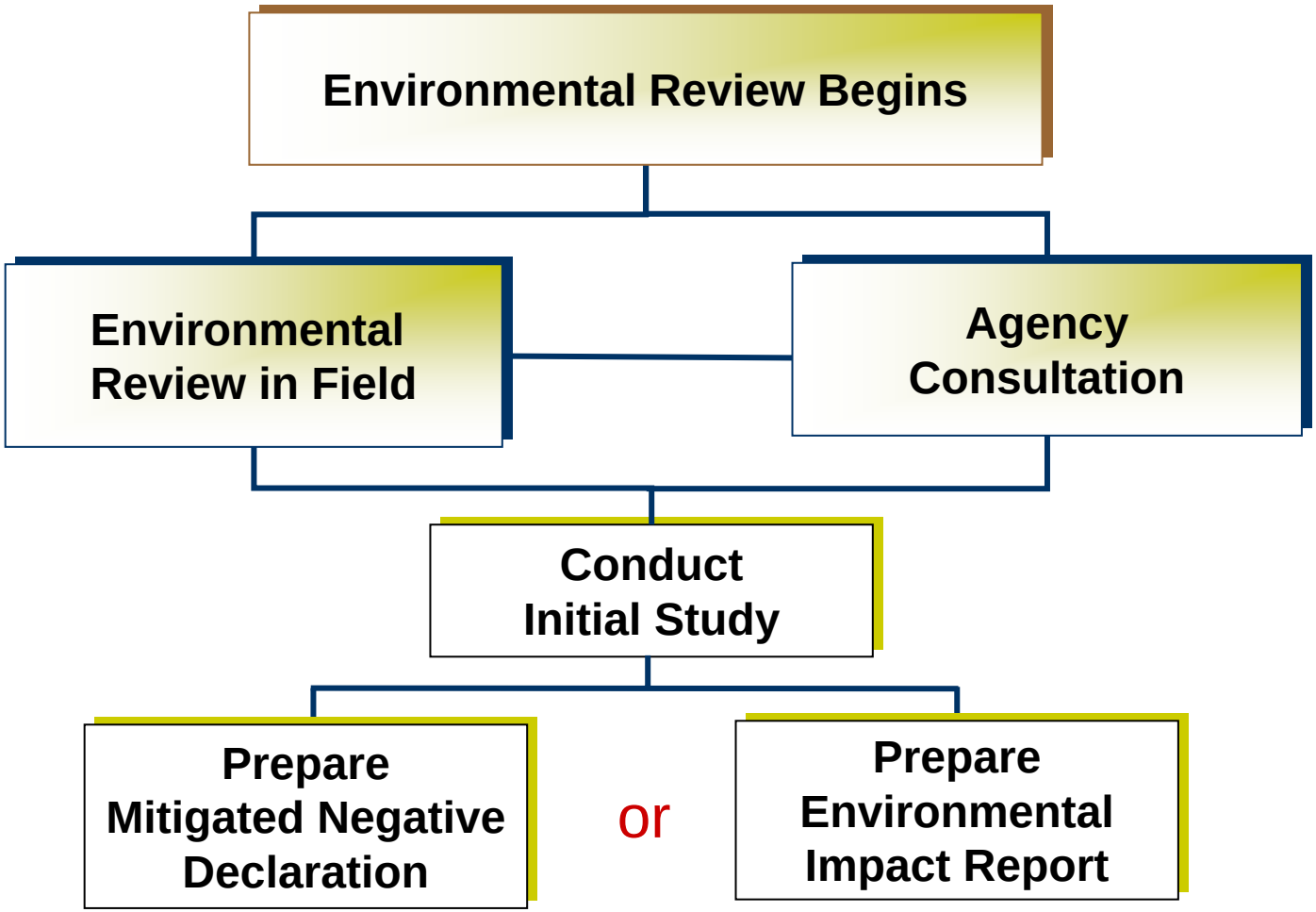
CPUC Review Process



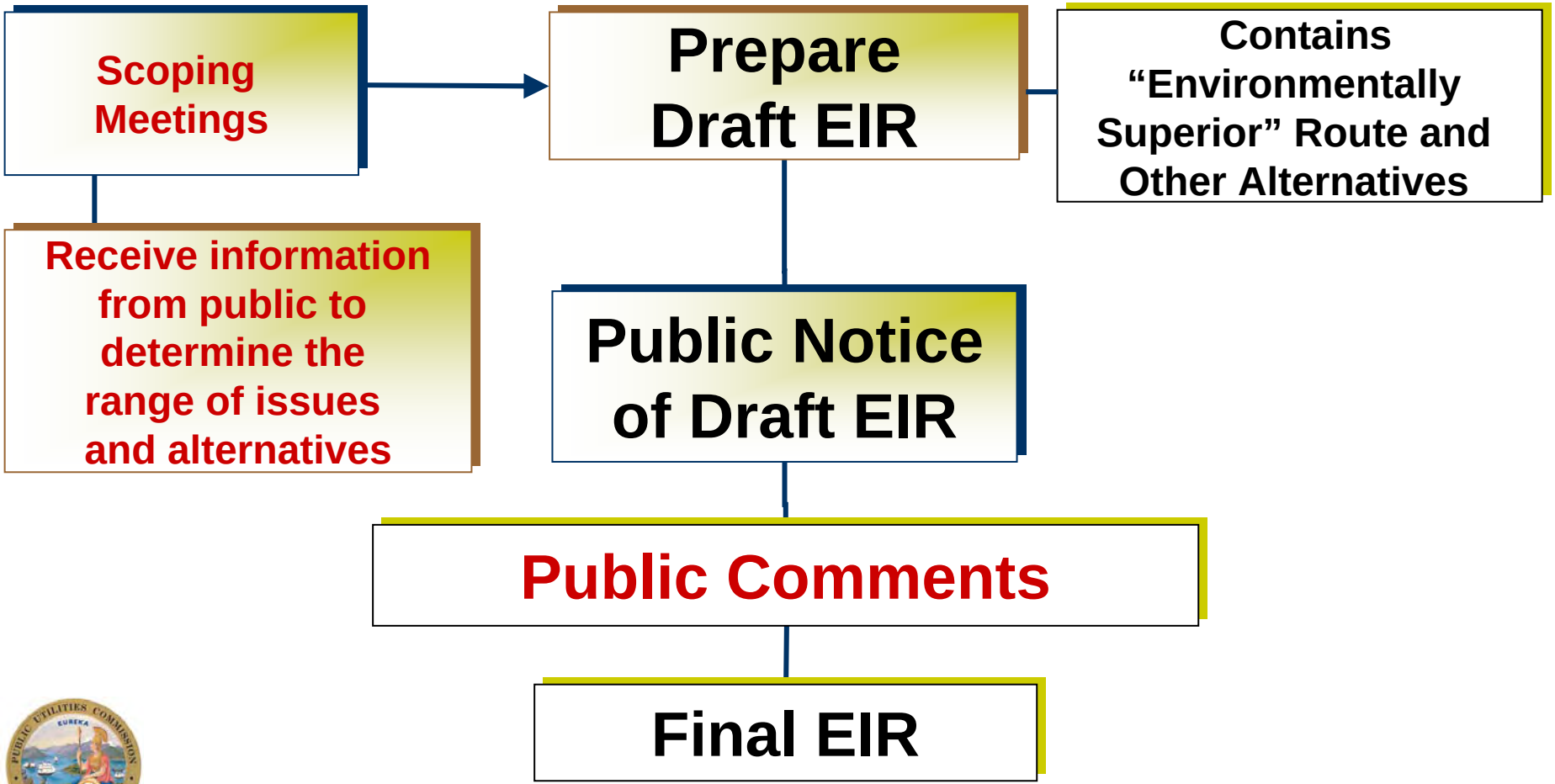
Basic Application and Environmental Review Processes (Step 1)



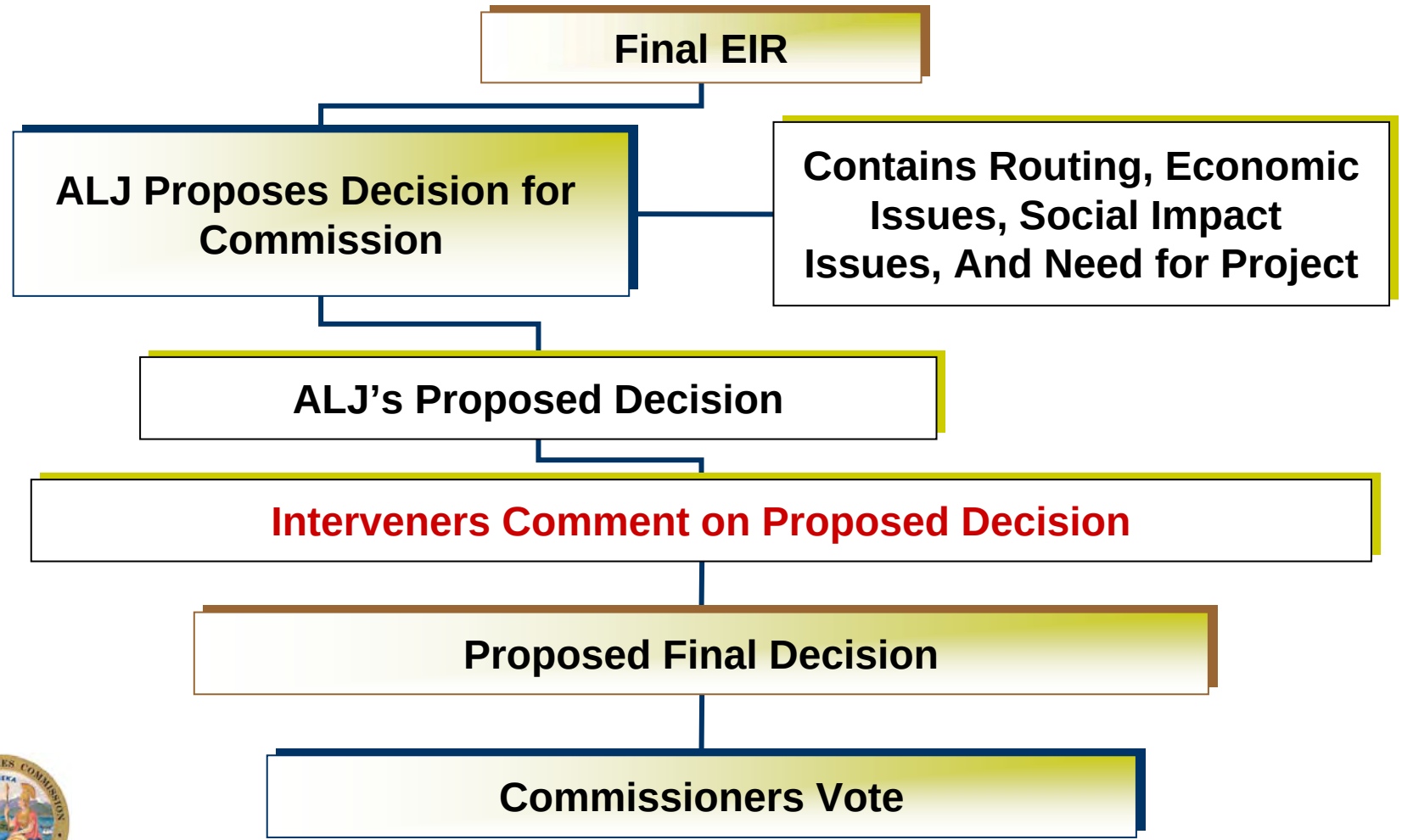
Basic Application and Environmental Review Processes (Step 2)



Basic Application and Environmental Review Processes (Step 3)



Basic Application and Environmental Review Processes (Step 4)

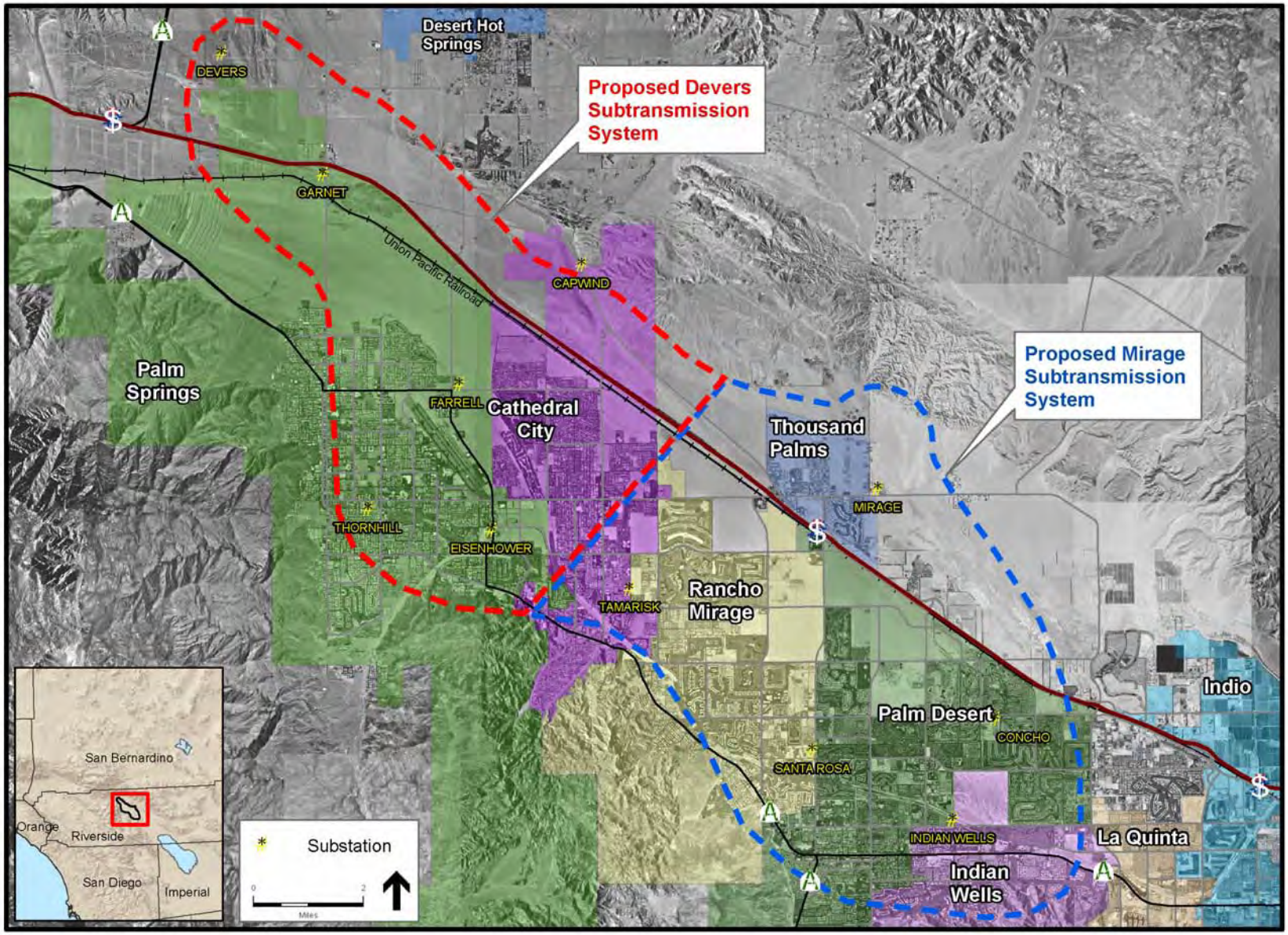


For Additional Information
http://www.cpuc.ca.gov

SCE's Project Purpose and Need

- Relieve existing thermal overload conditions on two 115 kV subtransmission lines
- Resolve a forecasted voltage problem on the 220 kV transmission system
- Serve projected electrical demand in the cities of Palm Springs, Rancho Mirage, Cathedral City, Palm Desert, Indian Wells, and unincorporated areas of Riverside County, including the Thousand Palms community
- Be operational by mid-2010

Project Location



Project Description Overview

- Farrell-Garnet 115 kV Proposed Route
- Mirage-Santa Rosa 115 kV Proposed Route
- Devers-Coachella Valley 220 kV Loop-In
- 115 kV Line Reconfigurations
- Substations

Project Description

- **Farrell-Garnet 115 kV Proposed Route**
  - Replace approximately 5.3 miles of existing single-circuit lines and structures with double-circuit
  - Within existing SCE and public road right-of-ways (ROWs)
  - General alignment:
    - From Farrell Sub north along the east side of Gene Autry Trail to a point south of the RR
    - Cross to west of Gene Autry Trail
    - NNW (crossing the RR) to a location south of I-10 ROW
    - Continue NW and W along I-10 to Garnet Substation

Project Description (cont'd)

- **Mirage-Santa Rosa 115 kV Proposed Route**
  - Replace approximately 1.5 miles of existing single-circuit lines and structures with double-circuit
  - Within existing SCE and public road ROWs
  - General alignment:
    - From Mirage Sub south adjacent to the east side of Tri-Palm Estates
    - Through the Tri-Palm Estates golf course
    - South of the golf course, cross I-10 to join the existing subtransmission system

Project Description (cont'd)

- **Devers-Coachella Valley 220 kV Loop-In**
  - Loop existing Devers-Coachella 220 kV line to an existing SCE ROW
  - South approximately 0.8 mile on double-circuit lattice steel towers to Mirage Substation
- **115 kV Line Reconfigurations**
  - Line reconfigurations at three intersections:
    - Portola and Gerald Ford
    - Dinah Shore and Bob Hope
    - near Varner and Date Palm

Project Description (cont'd)

- **Substations**
  - Installation of additional equipment and relays at Mirage, Concho, Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk Substations

Alternative Alignments

- Farrell-Garnet 115 kV Route #1 Option A
  - Avoid small section of BLM land
- Farrell-Garnet 115 kV Route #2
  - Overhead single-circuit along Gene Autry Trail, Vista Chino Rd, Sunrise Way, San Rafael Rd
  - Underground from San Rafael Rd to Four Seasons Blvd
  - Overhead from Four Seasons Blvd north to the Proposed Route
  - 0.5 mile underground; 5.5 miles overhead

Alternative Alignments (cont'd)

- Farrell-Garnet 115 kV Route #3
  - Along Gene Autry Trail, Vista Chino Rd, Sunrise Way, San Rafael Rd, Indian Canyon Dr then north to Garnet Sub
  - 6.5 miles overhead
- Mirage-Santa Rosa 115 kV Route #5
  - Underground in Ramon Road to Monterey Ave south to Varner Rd
  - Transition to overhead before crossing I-10
  - 1.9 miles underground; 500 feet overhead

Next Steps

- Notice of Preparation was circulated to solicit input from agencies and the public
- This meeting is part of the scoping process
- A Draft EIR will be prepared and circulated for agency and public comment
- Comments will be considered and addressed in a Final EIR
- CPUC considers EIR / other factors and issues a draft decision for the Proposed Project
- CPUC considers comments on draft and alternate decisions and votes on the Project

How to Comment

- Please submit scoping comments no later than Thursday, May 15, 2008:

Mr. Eric Chiang

Devers-Mirage 115kV Subtransmission System Split Project

c/o Environmental Science Associates

1425 N. McDowell Blvd., Suite 105

Petaluma, CA 94954

Fax: (707) 795-0902

Voicemail: (707) 795-0940

E-mail: devers-mirage@esassoc.com

Website: http://www.cpuc.ca.gov/Environment/info/esa/devers-mirage/devers.html

Public Comment

Discussion Guidelines

- One person to speak at a time
- Be concise
- Stay on topic
- Support everyone's participation
- Respect others' opinions
- Comments will be recorded
- Written comments are encouraged

APPENDIX F

Scoping Comment Letters

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
www.nahc.ca.gov
ds_nahc@pacbell.net

April 17, 2008

Mr. Eric Chhiang
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco, CA 94102-3298

Re: SCH# 2008041087; CEQA Notice of Preparation (NOP) draft Environmental Impact Report (DEIR) for the Southern California Edison Devers-Mirage 115kV Subtransmission System Split Project; CPUC; Riverside County, California

Dear Mr. Chiang:

Thank you for the opportunity to comment on the above-referenced document. The Native American Heritage Commission is the state agency designated for the protection of California's Native American cultural resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR per the California Code of Regulations § 15064.5(b)(c) (CEQA Guidelines). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE),' and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS). Contact information for the 'Information Center' nearest you is available from the State Office of Historic Preservation in Sacramento (916/653-7278). The record search will determine:

- If a part or the entire (APE) has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ Contact the Native American Heritage Commission (NAHC) for:

* A Sacred Lands File (SLF) search of the project area and information on tribal contacts in the project vicinity who may have information on cultural resources in or near the APE. Please provide us site identification as follows: USGS 7.5-minute quadrangle citation with name, township, range and section. This will assist us with the SLF.

- Also, we recommend that you contact the Native American contacts on the attached list to get their input on the effect of potential project (e.g. APE) impact. In many cases a culturally-affiliated Native American tribe or person will be the only source of information about the existence of a cultural resource.

√ Lack of surface evidence of archeological resources does not preclude their subsurface existence.

- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f)of the California Code of Regulations (CEQA Guidelines). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigations plans.

- CEQA Guidelines §15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the Initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American groups, identified by the NAHE, to ensure the appropriate and dignified treatment of Native American human remains and any associated grave goods.
- Health and Safety Code §7050.5, Public Resources Code §5097.98 and CEQA Guidelines §15064.5(d) mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

√ Lead agencies should consider avoidance, as defined in CEQA Guidelines §15370 when significant cultural resources are discovered during the course of project planning or execution.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List.

Cc: State Clearinghouse

Native American Contacts
Riverside County
April 17, 2008

Cabazon Band of Mission Indians
John A. James, Chairperson
84-245 Indio Springs Parkway Cahuilla
Indio , CA 92203-3499
(760) 342-2593
(760) 347-7880 Fax

Torres-Martinez Desert Cahuilla Indians
Raymond Torres, Chairperson
PO Box 1160 Cahuilla
Thermal , CA 92274
(760) 397-0300
(760) 397-8146 Fax

Cahuilla Band of Indians
Anthony Madrigal, Jr., Chairperson
P.O. Box 391760 Cahuilla
Anza , CA 92539
tribalcouncil@cahuilla.net
(951) 763-2631

(951) 763-2632 Fax

Twenty-Nine Palms Band of Mission Indians
Mike Darrell, Chairperson
46-200 Harrison Place Chemehuevi
Coachella , CA 92236
tribal-epa@worldnet.att.net
(760) 775-5566
(760) 775-4639 Fax

Los Coyotes Band of Mission Indians
Katherine Saubel, Spokesperson
P.O. Box 189 Cahuilla
Warner , CA 92086
loscoyotes@earthlink.net
(760) 782-0711
(760) 782-2701 - FAX

Joseph R. Benitez (Mike)
P.O. Box 1829 Chemehuevi
Indio , CA 92201
(760) 347-0488

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, vice chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Colorado River Reservation
Michael Tsosie, Cultural Contact
Route 1, Box 23-B Mojave
Parker , AZ 85344 Chemehuevi
symi@rraz.net
(928) 669-9211
(928) 669-5675 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed, SCH#2008041087; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Southern California Edison Devers to Mirage 115kV Subtransmission System Split Project; located in Riverside County, California.

Native American Contacts
Riverside County
April 17, 2008

Augustine Band of Cahuilla Mission Indians
Mary Ann Green, Chairperson
P.O. Box 846 Cahuilla
Coachella , CA 92236
(760) 369-7171
760-369-7161

Cabazon Band of Mission Indians
Judy Stapp, Director of Cultural Affairs
84-245 Indio Springs Parkway Cahuilla
Indio , CA 92203-3499
lweaver@cabazonindians.org
(760) 342-2593
(760) 347-7880 Fax

Morongo Band of Mission Indians
Michael Contreras, Cultural Resources-Project
49750 Seminole Drive Cahuilla
Cabazon , CA 92230 Serrano
(951) 755-5206

(951) 922-8146 Fax

Agua Caliente Band of Cahuilla Indians THPO
Richard Begay, Tribal Historic Perservation Officer
5401 Dinah Shore Drive Cahuilla
Palm Springs , CA 92264
rbegay@aguacaliente.net
(760) 325-3400 Ext 6906
(760) 699-6906
(760) 699-6925- Fax

Torres-Martinez Desert Cahuilla Indians
William Contreras, Cultural Resources Coordinator
P.O. Boxt 1160 Cahuilla
Thermal , CA 92274
cultural_monitor@yahoo.com
760) 397-0300
(760) 275-2686-CELL
(760) 397-8146 Fax

Cahuilla Band of Indians
Maurice Chacon, Cultural Resources
P.O. Box 391760 Cahuilla
Anza , CA 92539
cbandodian@aol.com
(951) 763-2631

(951) 763-2632 Fax

Torres-Martinez Desert Cahuilla Indians
Alberto Ramierz, Environmental Coordinator
P.O. Box 1160 Cahuilla
Thermal , CA 92274
albertor@torresmartinez.org
760) 397-0300
(760) 397-8146 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed, SCH#2008041087; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Southern California Edison Devers to Mirage 115kV Subtransmission System Split Project; located in Riverside County, California.

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

April 22, 2008

Mr. Eric Chiang
Devers-Mirage 115kV Subtransmission System Split Project
c/o Environmental Science Associates
1425 N. McDowell Boulevard, Suite 105
Petaluma, CA 94954

Dear Mr. Chiang:

Notice of Preparation of a Draft Environmental Impact Report (Draft EIR) for the Southern California Edison's Devers-Mirage 115kV Subtransmission System Split Project

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft environmental impact report (EIR). Please send the SCAQMD a copy of the Draft EIR upon its completion. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. Alternatively, the lead agency may wish to consider using the California Air Resources Board (CARB) approved URBEMIS 2007 Model. This model is available on the SCAQMD Website at: www.urbemis.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

It is recommended that lead agencies for projects generating or attracting vehicular trips, especially heavy-duty diesel-fueled vehicles, perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis") can be found on the SCAQMD's CEQA web pages at the following internet address: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html. An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate significant adverse air quality impacts. To assist the Lead Agency with identifying possible mitigation measures for the project, please refer to Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures. Additional mitigation measures can be found on the SCAQMD's CEQA web pages at the following internet address: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html Additionally, SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required. Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/prdas/aqguide/aqguide.html. In addition, guidance on sitting incompatible land uses can be found in the California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (http://www.aqmd.gov).

The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Gordon Mize, Ph.D., Air Quality Specialist, CEQA Section, at (909) 396-3302 if you have any questions regarding this letter.

Sincerely,

Steve Smith

Steve Smith, Ph.D.
Program Supervisor, CEQA Section
Planning, Rule Development and Area Sources

SS:CB:AK
RVC080417-03AK
Control Number

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-4959
FAX (916) 653-9531
TTY 711

Flex your power!
Be energy efficient!

April 23, 2008

Mr. Eric Chiang
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3298

Dear Mr. Chiang:

Notice of Preparation of a Draft Environmental Impact Report for the Southern California Edison Devers-Mirage 115 kV Subtransmission System Split Project; SCH# 2008041087

The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operations safety, noise and airport land use compatibility. We are a funding agency for airport projects, and we have permit authority for public-use and special-use airports and heliports.

The proposal is for the Southern California Edison Devers-Mirage 115 kV Subtransmission System Split Project. A portion of the project site is located in the vicinity of Palm Springs International Airport.

California Public Utilities Code Section 21658 prohibits structural hazards associated with utility poles and lines near airports. Should any of the transmission lines be in the vicinity of Palm Springs International Airport or exceed 200 feet in height, a Notice of Proposed Construction or Alteration (Form 7460-1) will be required by the Federal Aviation Administration (FAA) in accordance with Federal Aviation Regulation, Part 77 "Objects Affecting Navigable Airspace." Form 7460-1 is available on-line at https://oeaaa.faa.gov/oeaaa/external/portal.jsp and should be submitted electronically to the FAA.

These comments reflect the areas of concern to the Division with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our Caltrans District 8 office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314.

Sincerely,

Sandy Hesnard

SANDY HESNARD
Aviation Environmental Specialist

c: State Clearinghouse, Palm Springs Int'l Airport, Riverside County ALUC

Matthew Fagundes

From: Van Dorpe, David M SPL [David.M.VanDorpe@usace.army.mil]
Sent: Tuesday, May 06, 2008 3:15 PM
To: Matthew Fagundes
Cc: Mallette, Frank B SPL; Miya, Baron; Lovan, Hayley J SPL; Georgia Celehar
Subject: Whitewater River Basin Project and SCE Notice of EIR public meeting - Devers-Mirage 115kV Subtransmission System Split Project

Mr. Matt Fagundes;

Good talking with you on the phone earlier. Our project is called the Whitewater River Basin (Thousand Palms) flood control project. It consists of four levees that run northeast to southwest, diverting flooding from the Indio Hills away from the Thousand Palms area and to the southwest.

Right now, I do not believe we have any right-of-way conflicts with the Devers-Mirage project. We may however, impact some parcels. Our consultant, PB World, had preliminary discussions with Mr. Pascual Garcia, ROW Transmision Specialist, SCE Rialto Office regarding our levee alignments. We have since made some changes to those alignments which we would like to coordinate with the design team for the Devers-Mirage project. Please provide a POC whom we can share design information.

I have also copied this email to our consultant, Mr. Baron Miya, PB World, our lead engineer Mr. Frank Mallette, our Environmental Coordinator Ms. Hayley Lovan and our Sponsor, Ms. Georgia Celehar with Coachella Valley Water District. Either CVWD or we will send a letter in response to the Notice.

Sincerely,

David M. Van Dorpe, P.E., PMP
Project Manager
US Army Corps of Engineers
david.m.vandorpe@usace.army.mil
(213) 452-3998
(213) 280-8572 (m)

Established in 1918 as a public agency
Coachella Valley Water District

May 8, 2008

File: 0022.75
1142.03

Eric Chiang
Environmental Science Associates
1425 N. McDowell Boulevard, Suite 105
Petaluma, CA 94954

Dear Mr. Chiang:

Subject: Devers-Mirage 115kV Subtransmission System Split Project

Thank you for affording the Coachella Valley Water District (CVWD) the opportunity to review the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for Southern California Edison Company's (SCE) Devers-Mirage Subtransmission System Split Project located in the Coachella Valley. CVWD provides domestic water, wastewater, recycled water, irrigation/drainage, regional stormwater protection and groundwater management services to a population of 265,000 throughout the Coachella Valley in Southern California.

After reviewing the NOP, we submit the following comments:

1. The project lies within and outside the area of the Whitewater River Basin Thousand Palms Flood Control Project, which will provide regional flood control to a portion of the Thousand Palms area. CVWD is currently in the design phase of this flood control project. Upon completion of the design phase, developers and property owners within the area may be required to dedicate right-of-way for regional flood control facilities and/or participate in the financing of a portion of these facilities. Until construction of the flood control project is complete, the developer shall comply with Riverside County Ordinance 458.12.

2. The proposed project area is shown to be subject to shallow flooding and is designated Zone AO, with depths of one to three feet on the Federal Flood Insurance Rate maps.

3. Prior to approval of the proposed Subtransmission System project, the developer shall comply with Riverside County Ordinance 458.12 as amended in the preparation of on-site flood protection facilities for this project. The developer will be required to pay fees and submit plans to CVWD as part of the flood management review. Flood protection measures shall include establishing a finished floor/slab elevation at or above the flood depth, constructing erosion protection for the foundation of the structures and allowing reasonable conveyance of off-site flow through the property.

4. Construction of block walls may be in violation of Ordinance 458.12. When CVWD reviews a project for compliance with Ordinance 458.12, block walls are reviewed carefully and seldom found to be compatible with the goals of Ordinance 458.12. Block walls can cause diversion and concentration of storm flows onto adjacent properties and thus be in violation of Ordinance No. 458.12 and California drainage law.

5. Walls must be constructed in a manner that does not increase the risk of off-site storm water flows on to adjacent properties. This can be accomplished by constructing open sections in the wall to accommodate flow-through. To achieve this, CVWD requires that at least 50 percent of the total lineal footage of the wall be constructed of wrought iron fencing or similar material that will provide for storm water flow-through. Construction materials used within the open sections must extend the entire vertical wall height so not to obstruct flow at the finish grade/surface.

If you have any questions, please contact Luke Stowe, Senior Environmental Specialist, at extension 2545.

Yours very truly,

Mark L. Johnson
Director of Engineering

LS:md\eng\env\08\may\chiang-ltr

From: Juan Perez [mailto:jcperez@rctlma.org]
Sent: Monday, May 12, 2008 10:52 AM
To: Matthew Fagundes; Mojahed Salama
Cc: Eric Chiang; Douglas Cover; Damian Meins; Kathleen Browne; Ron Goldman
Subject: Re: Devers-Mirage EIR

Thanks Mojahed.

Matt, I do want to clarify that these comments are only from the County of Riverside Transportation Department, and as you can see they more operational in nature with regards to County roads. I assume that you are also contacting the County Planning Department, which is tasked with coordinating overall County comments from other affected County Departments and the Board of Supervisors? Kathleen Browne is the contact in Planning, I do want to emphasize that you make contact with her please as well.

Thanks.

>>> Mojahed Salama 5/12/2008 9:53 AM >>>
Matt,

Based on our phone conversation this morning, the following are my comments:

1) You will need an encroachment permit any time you work or cross a County road.

2) I prefer that you underground your lines when and if possible.

3) You will need to coordinate with IID (Imperial Irrigation District) and the County including the Economic Development Agency (EDA) on how your project will impact the EDA project on Monterey and Varner since this project includes relocation of IID poles. The EDA project is currently under construction and includes improving both Varner (Monterey to few hundred feet east of Ramon) and Monterey (Varner to Ramon) to ultimate improvement, which includes widening, Curb & Gutter and Sidewalks.

4) The County has the north west corner of the intersection of Dinah Shore and Bob Hope. The remaining 3 quarters are within the City of Rancho Mirage.

I hope this helps. Give me a call if you have further questions.

Mojahed Salama
Eng. Division Manager
Riverside County Transportation Department
Desert Office
760-863-8267 (office)
760-863-7040 (Fax)

-----Original Message-----
From: Mojahed Salama [mailto:msalama@rctlma.org]
Sent: Monday, May 12, 2008 9:54 AM
To: Matthew Fagundes; Juan Perez
Cc: Eric Chiang; Douglas Cover
Subject: Re: Devers-Mirage EIR

Matt,

Based on our phone conversation this morning, the following are my comments:

1) You will need an encroachment permit any time you work or cross a County road.

2) I prefer that you underground your lines when and if possible.

3) You will need to coordinate with IID (Imperial Irrigation District) and the County including the Economic Development Agency (EDA) on how your project will impact the EDA project on Monterey and Varner since this project includes relocation of IID poles. The EDA project is currently under construction and includes improving both Varner (Monterey to few hundred feet east of Ramon) and Monterey (Varner to Ramon) to ultimate improvement, which includes widening, Curb & Gutter and Sidewalks.

4) The County has the north west corner of the intersection of Dinah Shore and Bob Hope. The remaining 3 quarters are within the City of Rancho Mirage.

I hope this helps. Give me a call if you have further questions.

Mojahed Salama
Eng. Division Manager
Riverside County Transportation Department
Desert Office
760-863-8267 (office)
760-863-7040 (Fax)

Matthew Fagundes

From: tchighland@aol.com
Sent: Wednesday, May 14, 2008 4:14 PM
To: Devers Mirage
Cc: mejahed@aol.com
Subject: SCE Devers-Mirage Project

To:Mr. Eric Chiang
Re: SCE Devers-Mirage Project

Dear Sir:
I own a home at 641 Dunes Court, Palm Springs. I am adjacent to the Thornhill Substation in the City of Palm Springs.
#1 Will there be "new support structures" and buildings constructed in the Thornhill Substation?
#2 Will these structures be taller than 15 ft?
#3 Will additional traffic(trucks,workers) be using the Thornhill Substation on a regular basis after the project is completed?
#4 Currently there are SCE workers and other subcontractotrs who use the Thornhill Substation. NOISE from their vehicles(radios playing, motors running) are a constant irritant to the residents adjacent to the sub station.
#5 Additional buildings and worker-visits will cause even more NOISE and eyesore in a residential neighborhood.
These are my concerns.

Sincerely,
Thomas C. MacMaster
641 Dunes Court
Palm Springs, CA 92264
email- tchighland@aol.com
cell phone- 760 808 2456

Appendix B
Electric and Magnetic Fields

Appendix B Section 1

Electric and Magnetic Fields Summary

ESA

Electric and Magnetic Fields

The California Public Utilities Commission (CPUC) and the California Department of Health Services (CDHS) have not concluded that exposure to magnetic fields from utility electric facilities is a health hazard. Many reports have concluded that the potential for health effects associated with electric and magnetic field (EMF) exposure is too speculative to allow the evaluation of impacts or the preparation of mitigation measures. EMF is a term used to describe electric and magnetic fields that are created by electric voltage (electric field) and electric current (magnetic field). Power frequency EMF is a natural consequence of electrical circuits, and can be either directly measured using the appropriate measuring instruments or calculated using appropriate information. EMF are present wherever electricity flows: around appliances and power lines, in offices, schools, and homes. Electric fields are invisible lines of force, created by voltage, and are shielded by most materials. Units of measure are volts per meter (V/m). Magnetic fields are invisible lines of force, created by electric current and are not shielded by most materials, such as lead, soil and concrete. Units of measure are Gauss (G) or milliGauss (mG, 111000 of a Gauss). Electric and magnetic field strengths diminish with distance. These fields are low energy, extremely low frequency fields, and should not be confused with high energy or ionizing radiation such as X-rays and gamma rays.

Possible Health Effects

The possible effects of EMF on human health have come under scientific scrutiny. Concern about EMF originally focused on electric fields; however, much of the recent research has focused on magnetic fields. Uncertainty exists as to what characteristics of magnetic field exposure need to be considered to assess human exposure effects. Among the characteristics considered are field intensity, transients, harmonics, and changes in intensity over time. These characteristics may vary from power lines to appliances to home wiring, and this may create different types of exposures. The exposure most often considered is intensity or magnitude of the field. There is a consensus among the medical and scientific communities that there is insufficient evidence to conclude that EMF causes adverse health effects. Neither the medical nor scientific communities have been able to provide any foundation upon which regulatory bodies could establish a standard or level of exposure that is known to be either safe or harmful. Laboratory experiments have shown that magnetic fields can cause biologic changes in living cells, but scientists are not sure whether any risk to human health can be associated with them. Some studies have suggested an association between surrogate measures of magnetic fields and certain cancers while others have not.

California Public Utilities Commission Summary

Background – On January 15, 1991, the CPUC initiated an investigation to consider its role in mitigating the health effects, if any, of electric and magnetic fields from utility facilities and power lines. A working group of interested parties, called the California EMF Consensus Group, was created by the CPUC to advise it on this issue. It consisted of 17 stakeholders representing citizens groups, consumer groups, environmental groups, state agencies, unions, and utilities. The Consensus Group was charged to 1) consider a balanced set of facts and concerns; 2) define near- term research objectives; and 3)

develop interim policies and procedures to guide the electric utilities in educating their customers, reducing EMF, and responding to potential health concerns. The Consensus Group's fact-finding process was open to the public, and its report incorporated concerns expressed by the public. Its recommendations were filed with the Commission in March of 1992. In August of 2004, the CPUC opened an Order Instituting Rulemaking to update the Commission's policies and procedures related to electric and magnetic fields emanating from regulated utility facilities. The final decision was issued in D.06-01-042.

Findings – Based on the work of the Consensus Group, written testimony, and evidentiary hearings, the CPUC issued its decision (D.06-01-042) to address public concern about possible EMF health effects from electric utility facilities. The conclusions and findings included the following:

- The body of scientific evidence continues to evolve. However, it is recognized that public concern and scientific uncertainty remain regarding the potential health effects of EMF exposure.

- It is not appropriate to adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value.

Interim Policies – The CPUC's decision specifically requires seven measures. One of these measures that is involved with the Project is as follows:

- No-cost and low-cost steps to reduce EMF. In response to a situation of scientific uncertainty and public concern, the CPUC felt it appropriate for utilities to take no-cost and low-cost measures where feasible to reduce exposure from new or upgraded utility facilities. It directs that no-cost mitigation measures be undertaken, and that low-cost options be implemented through the Project certification process. Four percent of total Project budgeted cost is the benchmark in developing EMF mitigation guidelines, and mitigation measures should achieve some noticeable reductions.

The CPUC will continue to monitor these issues. If new information develops in the future, the CPUC may amend its decision to reflect new scientific evidence.

Exemption Criteria – The CPUC agreed that "Utility management should have reasonable latitude to deviate and modify their guidelines as conditions warrant and as new EMF information is received. However, if the EMF guidelines are to be truly used as guidelines, the utilities should incorporate criteria which justify exempting specific types of projects from the guidelines."

Utilities may use the following guidelines to determine those specific types of projects that will be exempt from no/low cost field reduction:

1. Operation, repair, maintenance replacement or minor alteration of existing structures: facilities or equipment.

2. Restoration or rehabilitation of deteriorated or damaged structures, facilities or equipment to meet current standards of public safety.

3. Addition of safety devices.

4. Replacement or reconstruction of existing structures and facilities on the same site and for the same purpose as the replaced structure or facility.

5. Emergency restoration projects.

6. Re-conductoring projects except when structures are reframed or reconfigured.

7. Projects located on land under the jurisdiction of the Forest Service, Bureau of Land Management or other governmental agency.

8. Privately owned tree farms.

9. Agricultural land within the Williamson Act.

10. Areas not suited to residential/commercial development. Such areas might include steep slopes, areas subject to flooding or areas without access to public facilities.

The intent of the exemption criteria is to exclude two types of projects. The first type of projects are those that either replace or make minor additions or modifications to existing facilities. This will include pole replacements or relocations less than 2,000 feet in length. Those projects where more than 2,000 feet of line is relocated or reconstructed or where the circuit is reinsulated or reconfigured should be considered for low cost magnetic field management techniques.

The second type projects are those located in undeveloped areas.

EMF Reduction – Utilities must use the following Guidelines in the application of no and low cost steps to reduce magnetic field strengths:

1. Take low cost steps to reduce fields from new and upgraded facilities in accordance with CPUC decision D.06-01-042 on EMF.

2. No cost measures will be implemented when available and practical.

3. Mitigation measures should not compromise the reliability, operation, safety or maintenance of the system.

4. Total cost of mitigation measures should not exceed 4 percent of the total cost of the Project.

5. Mitigation measures should have a noticeable reduction in the magnetic field level approximately 15 percent or more.

In accordance with CPUC Decision No. 93-11-013 and 06-01-042, Southern California Edison (SCE) will incorporate "no cost" and "low cost" magnetic field reduction steps in proposed transmission and substation facilities. The following measures would be included to reduce the magnetic field strength levels from electric power facilities:

- Taller poles for the proposed new 115 kV subtransmission line segments;
- A “double-circuit” pole-head configuration for the double-circuit portion of the proposed 115 kV Subtransmission Lines:
- A “triangle” type pole-head configuration for the single-circuit portion of the proposed 115 kV Subtransmission Lines;
- Phasing the proposed 115 kV Subtransmission Lines with respect to the adjacent existing subtransmission lines to reduce magnetic fields;
- Re-phasing existing 115 kV Subtransmission Lines to reduce magnetic fields;
- Placing major substation electric equipment (such as transformers) away from the existing substation property lines; and
- Phasing the Proposed loop-in 220 kV Transmission Line with respect to the adjacent existing transmission lines to reduce magnetic fields.

SCE’s plan for applying the above “no-cost” and “low-cost” magnetic field reduction measures uniformly and equitably for the entire Proposed Subtransmission Line routes is consistent with CPUC’s EMF policy and with the direction of leading national and international health agencies. Furthermore, the plan complies with SCE’s EMF Design Guidelines, and with applicable national and state safety standards for new electric facilities. Specific measures to be implemented are described in the attached Field Management Plan for the Proposed Project (Appendix D – Section 2) and alternatives (Appendix D – Section 3). It should be noted that Section 2 focuses on Alternatives 2, 3, and 5. However, it is anticipated that no-cost and low-cost measures for Alternatives 6 and 7 would be similar to those presented for Alternatives 2, 3, and 5.

Appendix B Section 2

Electric and Magnetic Fields Field Management Plan for the Proposed Project

ESA

Appendix F

FIELD MANAGEMENT PLAN

FOR

DEVERS-MIRAGE 115 KV SUBTRANSMISSION

SYSTEM SPLIT PROJECT

Appendix F

FIELD MANAGEMENT PLAN

DEVERS-MIRAGE 115 KV SYSTEM SPLIT PROJECT

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I. EXECUTIVE SUMMARY

This document is Southern California Edison Company's (SCE) Field Management Plan (FMP) for the Proposed Devers-Mirage 115 kilovolt (kV) System Split Project (Proposed Project). The Proposed Project is needed for maintaining electric system reliability, enhance operational flexibility, and serving projected electrical demand in the in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of Riverside County, including the Thousand Palms community. SCE proposes to install the 220 kV loop-in of Devers-Coachella Valley Transmission Line into Mirage Substation, one 280 megavolt amperes (MVA) 220/115 kV transformer, two new 115 kV subtransmission line segments, rearrange and modify subtransmission line connections, replace 115 kV circuit breakers, and construct other substation modifications in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of Riverside County, including the Thousand Palms community. The Proposed Project is scheduled to be operational by mid-2010, with construction scheduled to begin the second-quarter 2009.

SCE provides this FMP in order to inform the public, the California Public Utilities Commission (CPUC), and other interested parties of its evaluation of no-cost and low-cost magnetic field reduction measures for this project, and SCE's proposed plan to apply these measures to this project. This FMP has been prepared in accordance with CPUC Decision No. 93-11-013 and Decision No. 06-01-042 relating to extremely low frequency[1] electric and magnetic fields (EMF). This FMP also provides background on the current status of scientific research related to possible health effects of EMF, and a description of the CPUC's EMF policy.

The "no-cost and low-cost" magnetic field reduction measures that are incorporated into the design of the Proposed Project are:

- Using taller poles for the proposed new 115 kV subtransmission line segments;

[1] The extreme low frequency is defined as the frequency range from 3 Hz to 3,000 Hz.

- Using a "double-circuit" pole-head configuration for the double-circuit portion of the Proposed 115 kV Subtransmission Lines;
- Using a "triangle" type pole-head configuration for the single-circuit portion of the Proposed 115 kV Subtransmission Lines;
- Phasing the Proposed 115 kV Subtransmission Lines with respect to the adjacent existing subtransmission lines to reduce magnetic fields;
- Re-phasing existing 115 kV Subtransmission Lines to reduce magnetic fields;
- Placing major substation electric equipment (such as transformers) away from the existing substation property lines; and
- Phasing the Proposed loop-in 220 kV Transmission Line with respect to the adjacent existing transmission lines to reduce magnetic fields.

SCE's plan for applying the above no-cost and low-cost magnetic field reduction measures uniformly and equitably for the entire Proposed Subtransmission Line routes is consistent with CPUC's EMF policy and with the direction of leading national and international health agencies. Furthermore, the plan complies with SCE's EMF Design Guidelines[2], and with applicable national and state safety standards for new electric facilities.

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[2] EMF Design Guidelines, August 2006.

II. BACKGROUND REGARDING EMF AND PUBLIC HEALTH RESEARCH ON EMF

There are many sources of power frequency[3] electric and magnetic fields, including internal household and building wiring, electrical appliances, and electric power transmission and distribution lines. There have been numerous scientific studies about the potential health effects of EMF. After many years of research, the scientific community has been unable to determine if exposures to EMF cause health hazards. State and federal public health regulatory agencies have determined that setting numeric exposure limits is not appropriate.[4]

Many of the questions about possible connections between EMF exposures and specific diseases have been successfully resolved due to an aggressive international research program. However, potentially important public health questions remain about whether there is a link between EMF exposures and certain diseases, including childhood leukemia and a variety of adult diseases (e.g., adult cancers and miscarriages). As a result, some health authorities have identified magnetic field exposures as a possible human carcinogen. As summarized in greater detail below, these conclusions are consistent with the following published reports: the National Institute of Environmental Health Sciences (NIEHS) 1999[5], the National Radiation Protection Board (NRPB) 2001[6], the International Commission on non-Ionizing Radiation Protection (ICNIRP) 2001, the California Department of Health Services (CDHS) 2002[7], and the International Agency for Research on Cancer (IARC) 2002[8].

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3 In U.S., it is 60 Hertz (Hz).

4 CPUC Decision 06-01-042, p. 6, footnote 10

5 National Institute of Environmental Health Sciences' Report on Health Effects from Exposures to Power-Line frequency Electric and Magnetic Fields, NIH Publication No. 99-4493, June 1999.

6 National Radiological Protection Board, Electromagnetic Fields and the Risk of Cancer, Report of an Advisory Group on Non-ionizing Radiation, Chilton, U.K. 2001

7 California Department of Health Services, An Evaluation of the Possible Risks from Electric and Magnetic Fields from Power Lines, Internal Wiring, Electrical Occupations, and Appliances, June 2002.

8 World Health Organization / International Agency for Research on Cancer, IARC Monographs on the evaluation of carcinogenic risks to humans (2002), Non-ionizing radiation, Part 1: Static and extremely low-frequency (ELF) electric and magnetic fields, IARCPress, Lyon, France: International Agency for Research on Cancer, Monograph, vol. 80, p. 338, 2002

The federal government conducted EMF research as a part of a $45-million research program managed by the NIEHS. This program, known as the EMF RAPID (Research and Public Information Dissemination), submitted its final report to the U.S. Congress on June 15, 1999. The report concluded that:

- "The scientific evidence suggesting that ELF-EMF exposures pose any health risk is weak."[9]
- "The NIEHS concludes that ELF-EMF exposure cannot be recognized as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard."[10]
- "The NIEHS suggests that the level and strength of evidence supporting ELF-EMF exposure as a human health hazard are insufficient to warrant aggressive regulatory actions; thus, we do not recommend actions such as stringent standards on electric appliances and a national program to bury all transmission and distribution lines. Instead, the evidence suggests passive measures such as a continued emphasis on educating both the public and the regulated community on means aimed at reducing exposures. NIEHS suggests that the power industry continue its current practice of siting power lines to reduce exposures and continue to explore ways to reduce the creation of magnetic fields around transmission and distribution lines without creating new hazards."[11]

In 2001, Britain's NRPB arrived at a similar conclusion:

> "After a wide-ranging and thorough review of scientific research, an independent Advisory Group to the Board of NRPB has concluded that the power frequency electromagnetic fields that exist in the vast majority of homes are not a cause of cancer in general. However, some epidemiological studies do indicate a possible small risk of childhood leukemia associated with exposures to unusually high levels of power frequency magnetic fields."[12]

In 2002, three scientists for CDHS concluded:

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9 National Institute of Environmental Health Sciences, NIEHS Report on Health Effects from Exposures to Power-Frequency Electric and Magnetic Fields, p. ii, NIH Publication No. 99-4493, 1999

10 *ibid.*, p. iii

11 *ibid.*, p. 37 - 38

12 NRPB, NRPB Advisory Group on Non-ionizing Radiation Power Frequency Electromagnetic Fields and the Risk of Cancer, NRPB Press Release May 2001

"To one degree or another, all three of the [C]DHS scientists are inclined to believe that EMFs can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's Disease, and miscarriage.

They [CDHS] strongly believe that EMFs do not increase the risk of birth defects, or low birth weight.

They [CDHS] strongly believe that EMFs are not universal carcinogens, since there are a number of cancer types that are not associated with EMF exposure.

To one degree or another they [CDHS] are inclined to believe that EMFs do not cause an increased risk of breast cancer, heart disease, Alzheimer's disease, depression, or symptoms attributed by some to a sensitivity to EMFs. However, all three scientists had judgments that were "close to the dividing line between believing and not believing" that EMFs cause some degree of increased risk of suicide, or

For adult leukemia, two of the scientists are 'close to the dividing line between believing or not believing' and one was 'prone to believe' that EMFs cause some degree of increased risk."[13]

Also in 2002, the World Health Organization's IARC concluded:

"ELF magnetic fields are possibly carcinogenic to humans"[14], based on consistent statistical associations of high-level residential magnetic fields with a doubling of risk of childhood leukemia...Children who are exposed to residential ELF magnetic fields less than 0.4 microTesla (4.0 milliGauss) have no increased risk for leukemia.... In contrast, "no consistent relationship has been seen in studies of childhood brain tumors or cancers at other sites and residential ELF electric and magnetic fields."[15]

III. APPLICATION OF THE CPUC'S NO-COST AND LOW-COST EMF POLICY TO THIS PROJECT

Recognizing the scientific uncertainty over the connection between EMF exposures and health effects, the CPUC adopted a policy that addresses public concern over EMF with a combination of education, information, and precaution-based approaches. Specifically, Decision

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13 CDHS, An Evaluation of the Possible Risks From Electric and Magnetic Fields (EMFs) From Power Lines, Internal Wiring, Electrical Occupations and Appliances, p. 3, 2002

14 IARC, Monographs, Part I, Vol. 80, p. 338

15 *ibid.*, p. 332 - 334

93-11-013 established a precautionary based no-cost and low-cost EMF policy for California's regulated electric utilities based on recognition that scientific research had not demonstrated that exposures to EMF cause health hazards and that it was inappropriate to set numeric standards that would limit exposure.

In 2006, the CPUC completed its review and update of its EMF Policy in Decision 06-01-042. This decision reaffirmed the finding that state and federal public health regulatory agencies have not established a direct link between exposure to EMF and human health effects,[16] and the policy direction that (1) use of numeric exposure limits was not appropriate in setting utility design guidelines to address EMF,[17] and (2) existing no-cost and low-cost precautionary-based EMF policy should be continued for proposed electrical facilities. The decision also reaffirmed that EMF concerns brought up during Certificate of Public Convenience and Necessity (CPCN) and Permit to Construct (PTC) proceedings for electric and transmission and substation facilities should be limited to the utility's compliance with the CPUC's low-cost/no-cost policies.[18]

The decision directed regulated utilities to hold a workshop to develop standard approaches for EMF Design Guidelines and such a workshop was held on February 21, 2006. Consistent design guidelines have been developed that describe the routine magnetic field reduction measures that regulated California electric utilities consider for new and upgraded transmission line and transmission substation projects. SCE filed its revised EMF Design Guidelines with the CPUC on July 26, 2006.

No-cost and low-cost measures to reduce magnetic fields would be implemented for this project in accordance with SCE's EMF Design Guidelines. In summary, the process of

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16 CPUC Decision 06-01-042, Conclusion of Law No. 5, mimeo. p. 19 ("As discussed in the rulemaking, a direct link between exposure to EMF and human health effects has yet to be proven despite numerous studies including a study ordered by this Commission and conducted by DHS.").

17 CPUC Decision 06-01-042, mimeo. p. 17 - 18 ("Furthermore, we do not request that utilities include non-routine mitigation measures, or other mitigation measures that are based on numeric values of EMF exposure, in revised design guidelines or apply mitigation measures to reconfigurations or relocations of less than 2,000 feet, the distance under which exemptions apply under GO 131-D. Non-routine mitigation measures should only be considered under unique circumstances.").

18 CPUC Decision 06-01-042, Conclusion of Law No. 2, ("EMF concerns in future CPCN and PTC proceedings for electric and transmission and substation facilities should be limited to the utility's compliance with the Commission's low-cost/no-cost policies.").

evaluating no-cost and low-cost magnetic field reduction measures and prioritizing within and between land usage classes considers the following:

1. SCE's priority in the design of any electrical facility is public and employee safety. Without exception, design and construction of an electric power system must comply with all applicable federal, state, and local regulations, applicable safety codes, and each electric utility's construction standards. Furthermore, transmission and subtransmission lines and substations must be constructed so that they can operate reliably at their design capacity. Their design must be compatible with other facilities in the area and the cost to operate and maintain the facilities must be reasonable.

2. As a supplement to Step 1, SCE follows the CPUC's direction to undertake no-cost and low-cost magnetic field reduction measures for new and upgraded electrical facilities. Any proposed no-cost and low-cost magnetic field measures, must, however, meet the requirements described in Step 1 above. The CPUC defines no-cost and low-cost measures as follows:

   - Low-cost measures, in aggregate, would:
     - Cost in the range of 4 percent of the total project cost.
     - For low cost mitigation, the "EMF reductions will be 15% or greater at the utility ROW [right-of-way]..."[19]

   The CPUC Decision stated,

   > "We direct the utilities to use 4 percent as a benchmark in developing their EMF mitigation guidelines. We will not establish 4 percent as an absolute cap at this time because we do not want to arbitrarily eliminate a potential measure that might be available but costs

[19] CPUC Decision 06-01-042, p. 10

more than the 4 percent figure. Conversely, the utilities are encouraged to use effective measures that cost less than 4 percent."[20]

3. The CPUC provided further policy direction in Decision 06-01-042, stating that, "[a]lthough equal mitigation for an entire class is a desirable goal, we will not limit the spending of EMF mitigation to zero on the basis that not all class members can benefit."[21] While Decision 06-01-042 directs the utilities to favor schools, day-care facilities and hospitals over residential areas when applying low-cost magnetic field reduction measures, prioritization within a class can be difficult on a project case-by-case basis because schools, day-care facilities, and hospitals are often integrated into residential areas, and many licensed day-care facilities are housed in private homes, and can be easily moved from one location to another. Therefore, it may be practical for public schools, licensed day-care centers, hospitals, and residential land uses to be grouped together to receive highest prioritization for low-cost magnetic field reduction measures. Commercial and industrial areas may be grouped as a second priority group, followed by recreational and agricultural areas as the third group. Low-cost magnetic field reduction measures will not be considered for undeveloped land, such as open space, state and national parks, and Bureau of Land Management and U.S. Forest Service lands. When spending for low-cost measures would otherwise disallow equitable magnetic field reduction for all areas within a single land-use class, prioritization can be achieved by considering location and/or density of permanently occupied structures on lands adjacent to the projects, as appropriate.

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[20] CPUC Decision 93-11-013, § 3.3.2, p.10.
[21] CPUC Decision 06-01-042, p. 10

This FMP contains descriptions of various magnetic field models and the calculated results of magnetic field levels based on those models. These calculated results are provided only for purposes of identifying the relative differences in magnetic field levels among various transmission or subtransmission line design alternatives under a specific set of modeling assumptions and determining whether particular design alternatives can achieve magnetic field level reductions of 15 percent or more. The calculated results are not intended to be predictors of the actual magnetic field levels at any given time or at any specific location if and when the project is constructed. This is because magnetic field levels depend upon a variety of variables, including load growth, customer electricity usage, and other factors beyond SCE's control. The CPUC affirmed this in D. 06-01-042 stating:

> "Our [CPUC] review of the modeling methodology provided in the utility [EMF] design guidelines indicates that it accomplishes its purpose, which is to measure the relative differences between alternative mitigation measures. Thus, the modeling indicates relative differences in magnetic field reductions between different transmission line construction methods, but does not measure actual environmental magnetic fields."[22]

IV. PROJECT DESCRIPTION

SCE proposes to construct the Devers-Mirage 115 kV System Split Project to maintain electric system reliability, enhance operational flexibility, and serve projected electrical demand in the in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of Riverside County, including the Thousand Palms community. SCE proposes to install the 220 kV loop-in of Devers-Coachella Valley Transmission Line into Mirage Substation, one 280 megavolt amperes (MVA) 220/115 kV transformer, two new 115 kV subtransmission line segments, rearrange and modify subtransmission line connections, replace 115 kV circuit breakers, and construct other substation modifications in the cities of Palm Springs, Rancho Mirage, Indian Wells, Cathedral City, Palm Desert, and unincorporated areas of

[22] CPUC Decision 06-01-042, p. 11

Riverside County, including the Thousand Palms community. The Proposed Project is scheduled to be operational by mid-2010, with construction scheduled to begin the second-quarter 2009.

For the purpose of evaluating no-cost and low-cost magnetic field reduction measures, the Proposed Project is divided into three parts as described below:

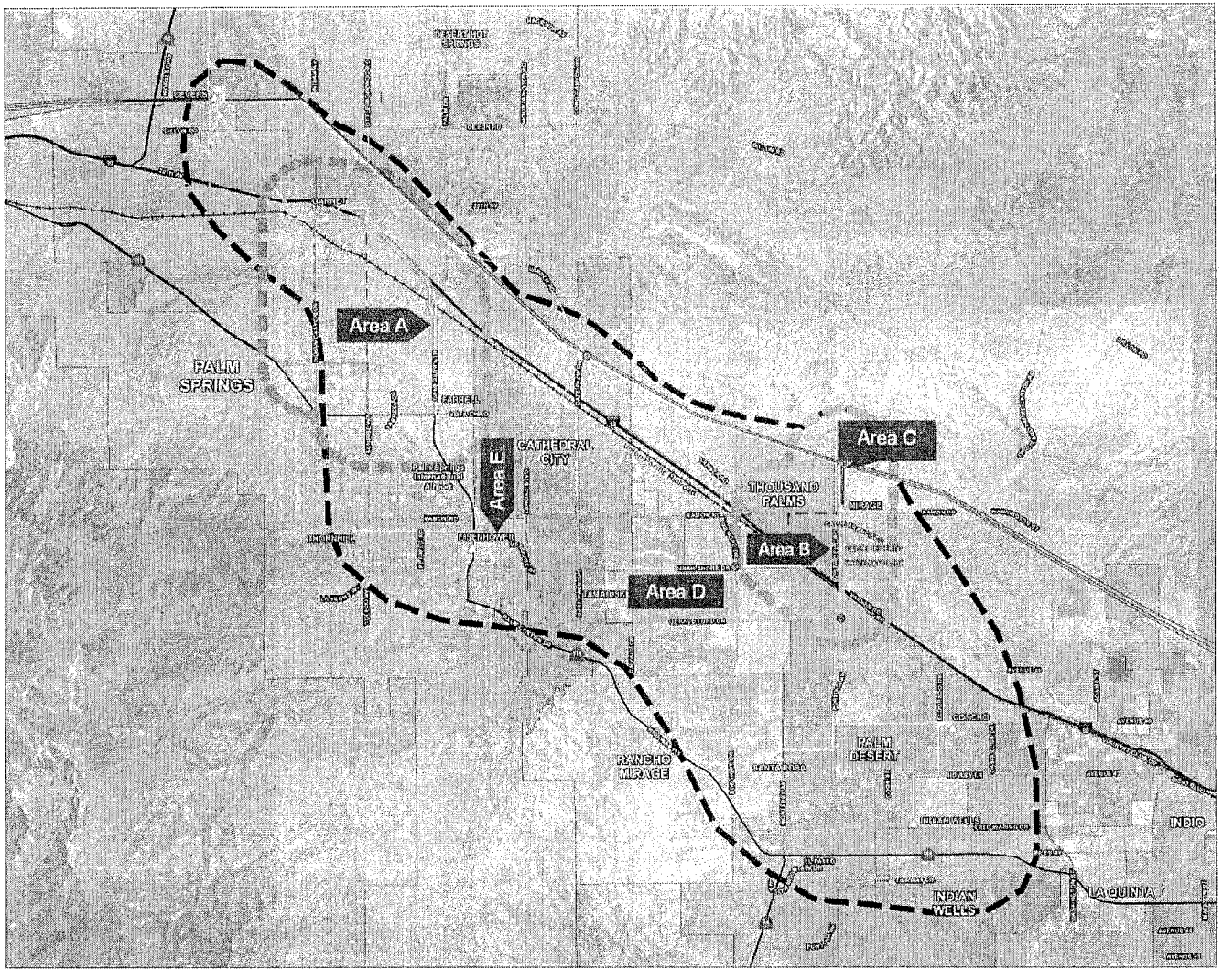
1. Project Part 1: Construct new Farrell-Garnet 115 kV and Mirage-Santa Rosa 115 kV subtransmission line segments
2. Project Part 2: Reconfigure existing 115 kV subtransmission lines
3. Project Part 3: Install the 220 kV loop-in of Devers-Coachella Valley Transmission Line into Mirage Substation
4. Project Part 4: Construct limited improvements at existing substations to accommodate Part 1 and 2 above.

The total cost of the Proposed Project is approximately $33.3 million dollars[23]. Four percent of the Proposed Project cost is about $1.33 million dollars. SCE engineers added magnetic field reduction measures early in the design phase for this project. The total project cost, therefore, includes "low-cost" magnetic field reduction measures in the proposed designs.

Figure 1 below shows the overall project areas.

[23] This estimated total project cost does not include telecommunications.

Figure 1. Project Area A through E



Currently, there are no schools along the Proposed Transmission and Subtransmission Line routes (Area A through Area C) as shown on Figure 1 above. There are, however, existing schools[24] in Area D where SCE proposes limited works of reconfiguring existing 115 kV subtransmission lines.

V. EVALUATION OF NO-COST AND LOW-COST MAGNETIC FIELD REDUCTION MEASURES

Project Part 1 - Constructing new Farrell-Garnet 115 kV and Mirage-Santa Rosa 115 kV subtransmission lines

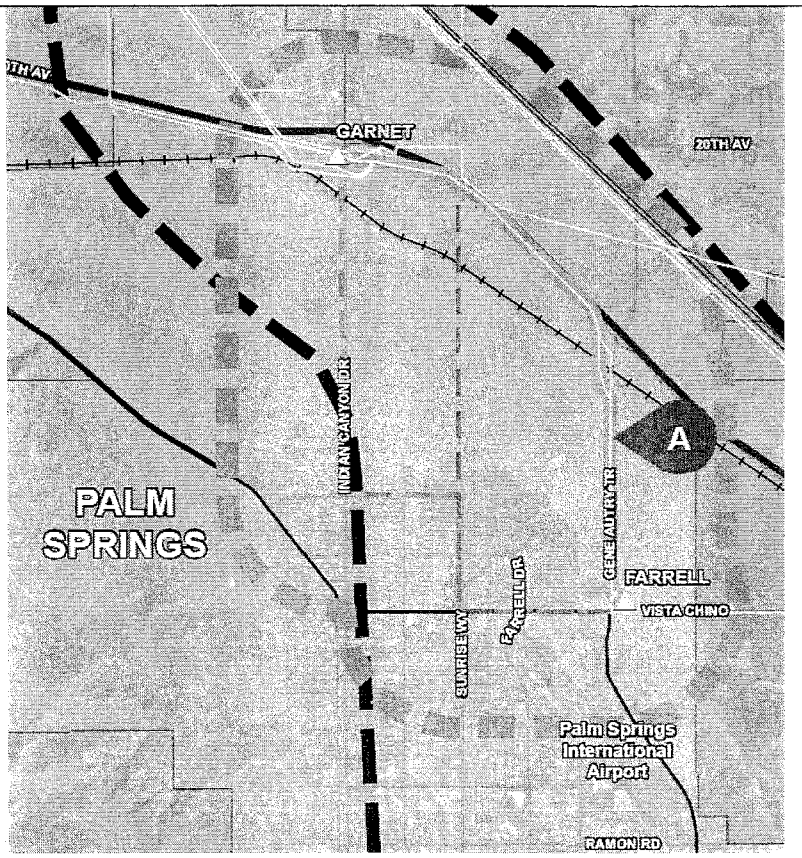
New Farrell-Garnet 115 kV Subtransmission Line Route

- Replace approximately 5.3 miles of the existing Devers-Farrell-Windland single-circuit 115 kV subtransmission line with a new higher capacity double-circuit 115 kV subtransmission line and replace support structures within existing SCE rights-of-way and franchise locations between Farrell and Garnet substations in the City of Palm Springs.
- Install a new 115 kV subtransmission line position at Farrell Substation and upgrade an existing 115 kV subtransmission line position at Garnet Substation.
- Install a new circuit breaker at Farrell Substation.

Figure 2 below shows the "Area A" where the Proposed Subtransmission Line would be located.

[24] Nellie Coffman Middle School on Plumley Road, Cathedral City and Cathedral City High School on Dinah Shore Drive in Cathedral City.

Figure 2. Proposed Farrell – Garnet 115 kV Subtransmission Line in Area A



New Mirage-Santa Rosa 115 kV Subtransmission Line Route[25]

- Replace approximately 1,783 feet of the existing Mirage-Tamarisk single-circuit 115 kV subtransmission line with a new, higher capacity double-circuit 115 kV subtransmission line and replace support structures within existing SCE rights-of-way from Mirage Substation to Calle Francisco, in the community of Thousand Palms.
- Build a new single-circuit 115 kV subtransmission line on the west side of the existing SCE right-of-way from Calle Francisco to Calle Desierto (approximately 2,447 feet) on new support structures.

[25] Adjacent subtransmission lines are 1) Mirage-Santa Rosa-Tamarisk and Mirage-Concho 115 kV.

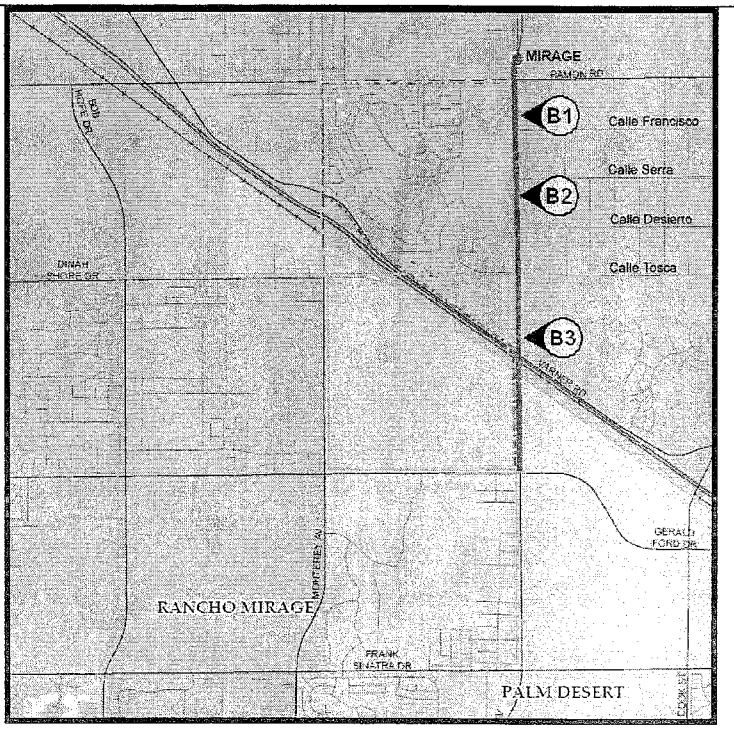
- Build a new single-circuit 115 kV subtransmission line on the east side of the existing SCE right-of-way, from Calle Desierto through the Tri-Palms Country Club golf course (approximately 1,293 feet) on new wood poles.
- Replace approximately 2,130 feet of the existing Devers-Capwind-Concho-Mirage 115 kV subtransmission line with a new, higher capacity double-circuit 115 kV subtransmission line and replace support structures within existing SCE rights-of-way from the Tri-Palms Country Club golf course, to I-10.
- Replace an existing single-circuit 115 kV subtransmission wood pole on the northwest corner of Portola Avenue and Gerald Ford Drive, with a new double-circuit TSP, located south of I-10, approximately 50 feet north of the existing wood pole at the intersection of Portola Avenue and Gerald Ford Drive in the City of Palm Desert.
- Install two new 115 kV subtransmission line positions at Mirage Substation; upgrade two existing 115 kV subtransmission line positions at Santa Rosa Substation; upgrade two existing 115 kV subtransmission line positions at Tamarisk Substation; and upgrade two existing 115 kV subtransmission line positions at Devers Substation.
- Replace one 115kV circuit breaker at Tamarisk Substation and replace two 115 kV circuit breakers at Devers Substation.

Figure 3 shows the Area B where the Proposed Subtransmission Line would be located. This "Area B" is further is divided into three segments by considering changes in characteristics of subtransmission line corridors (i.e., changes in the number of subtransmission lines within the corridor, changes to tower type for the Proposed Line) as indicated on the Figure 3 as "B1", "B2", and "B3".

- Area B - Segment 1 ("B1"): From Mirage Substation to Calle Francisco
- Area B - Segment 2 ("B2"): From Calle Francisco to near Calle Tosca

- Area B - Segment 3 ("B3:"): From Calle Tosca to south of I-10 Freeway

Figure 3. Proposed Mirage-Santa Rosa 115 kV Subtransmission Line in Area B



The following magnetic field reduction methods are applicable for an overhead subtransmission line design such as SCE's Proposed Subtransmission Lines:

1. Selecting taller poles;
2. Selecting pole-head configurations with less phase-to-phase distance and/or circuit-to-circuit distance;
3. Phasing proposed 115 kV circuits with respect to the adjacent transmission or subtransmission line(s).

After ten years of evaluating and implementing no-cost and low-cost magnetic field reduction measures for subtransmission line designs, SCE established preferred overhead 66 kV and 115 kV subtransmission line designs in 2004. These preferred designs incorporate the most effective no-cost and low-cost magnetic field reduction measures (such as pole-head

configurations and taller poles). For overhead 115 kV subtransmission lines, SCE's preferred designs[26] are as follows:

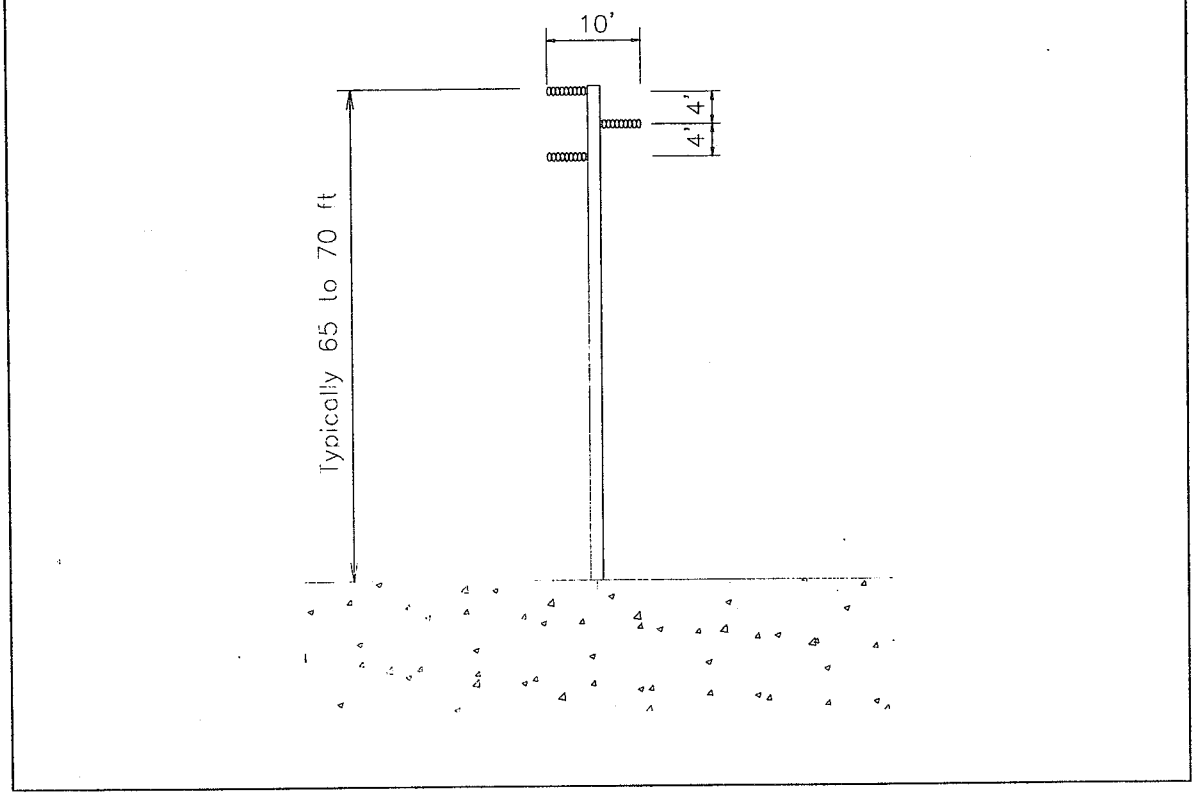
Table 1. Preferred Overhead 115 kV Subtransmission Line Designs with Most Effective Magnetic Field Reduction Options Incorporated

	115 kV Overhead Construction	
	Single Circuit Design	Double Circuit Design
Base Pole Height	61 feet (above the ground)	65 feet (above the ground)
Base Pole-head Configuration	"Triangle" or equivalent	"Double-Circuit"
Minimum Clearance	35 feet	35 feet

The typical proposed overhead design for the single-circuit portions of the Proposed Subtransmission Line (Single-Circuit Design) with no-cost and low-cost magnetic field reduction measures is shown on Figure 4. This is the proposed design for Area B – Segment 2 where there are some existing homes. Five foot taller poles were considered as an additional low-cost measure, but not recommended due to lack of an additional 15% magnetic field reduction for existing homes. Typical pole height would be approximately 65 to 70 feet above the ground for this segment. This design, therefore, meets or exceeds the preferred single-circuit design as listed on Table 1.

[26] Exceptions to the "preferred design" are recommended by the primary designer based on engineering & safety requirements.

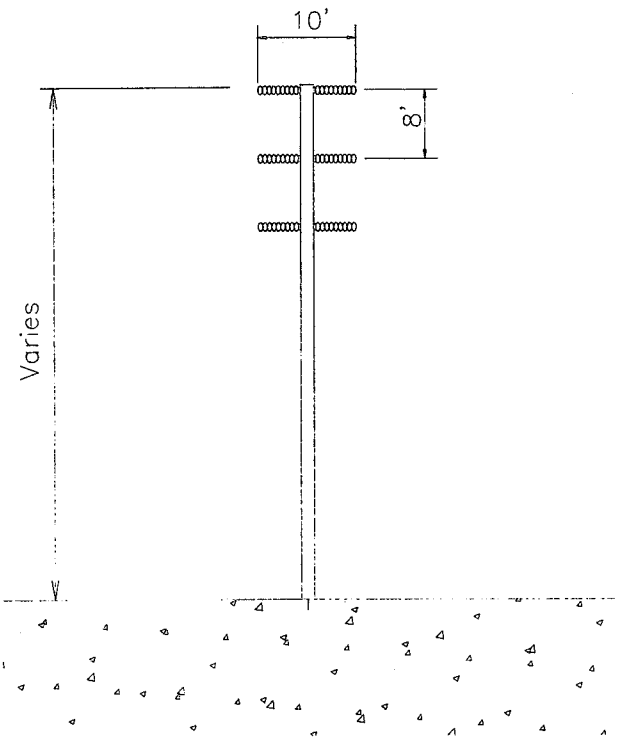
Figure 4. Proposed 115 kV Single-Circuit Design



The typical proposed overhead design for the double-circuit portion of the Proposed Subtransmission Line (Double-Circuit Design) is shown on Figure 5 below. The Double-Circuit Design is the proposed design for Area A, Area B-Segment 1 and 3. The proposed pole is typically 65 to 75[27] feet above the ground for Area A and 65 to 70 feet above the ground for Area B-Segment 1 and 3. This design also meets or exceeds the preferred double-circuit design as listed on Table 1.

[27] 75 feet above ground poles would be used near the existing Farrell Substation for engineering requirements

Figure 5. Proposed 115 kV Double-Circuit Design



Both the proposed Single-Circuit and Double-Circuit designs meet or exceed SCE's preferred overhead 115 kV designs as listed on Table 1. These designs[28] would be uniformly and equitably applied to the entire Proposed Subtransmission Line routes (i.e. no-cost and low-cost magnetic field reduction measures can be applied to the entire route); therefore, the proposed overhead designs for the Proposed Subtransmission Lines incorporate no-cost and low-cost magnetic field reduction measures.

As a comparison, Figure 6 below shows typical existing 115 kV designs for Area A and B.

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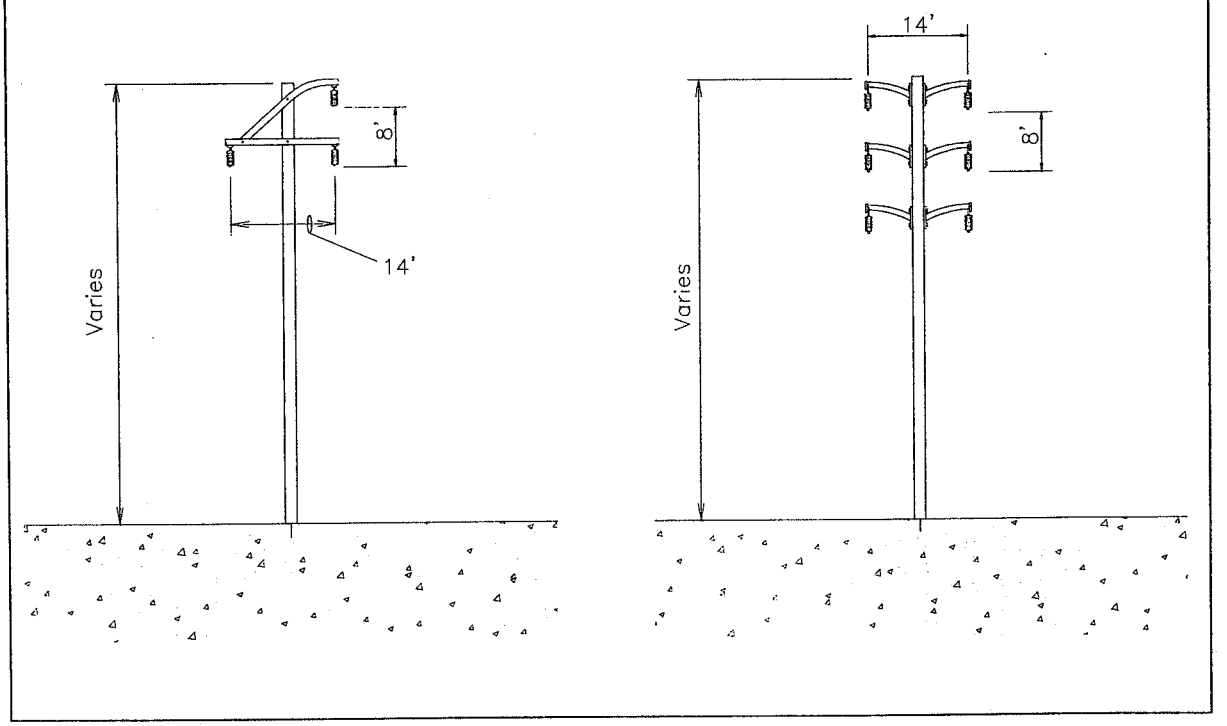
[28] Depending upon locations, the proposed poles would be either light weight steel (LWS) or tubular steel poles (TSP).

Figure 6. Existing 115 kV Overhead Designs for Area A and B



The existing overhead designs have about 4 feet wider circuit-to-circuit distances compared to the proposed Single-Circuit and Double-Circuit designs as shown on Figure 4 and Figure 5 above. The existing single-circuit design has wider phase-to-phase distance compared to the proposed Single-Circuit Design. The existing overhead designs also have suspended insulators, typically 4 foot long. Using post type insulators for the proposed designs would result in placing the bottom conductor 4 feet higher than existing designs even if the same length of poles are used for constructing new ones. Therefore, as an illustration of comparing designs, both proposed Single-Circuit and Double-Circuit designs are better than existing designs in the context of no-cost and low-cost magnetic field reductions. Figure 7 to Figure 10 show existing designs vs. proposed designs with proposed 115 kV circuit rearrangements in Area A and B.

Figure 7. Existing vs. Proposed 115 kV Designs for Area A

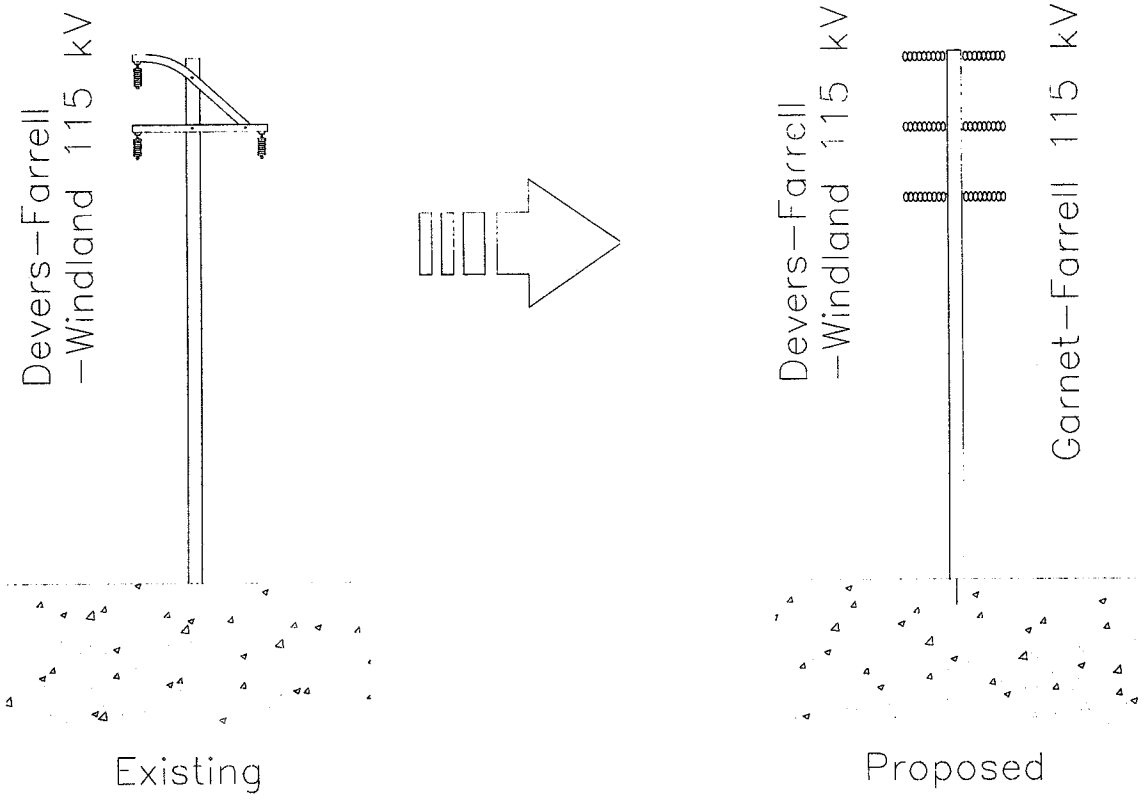
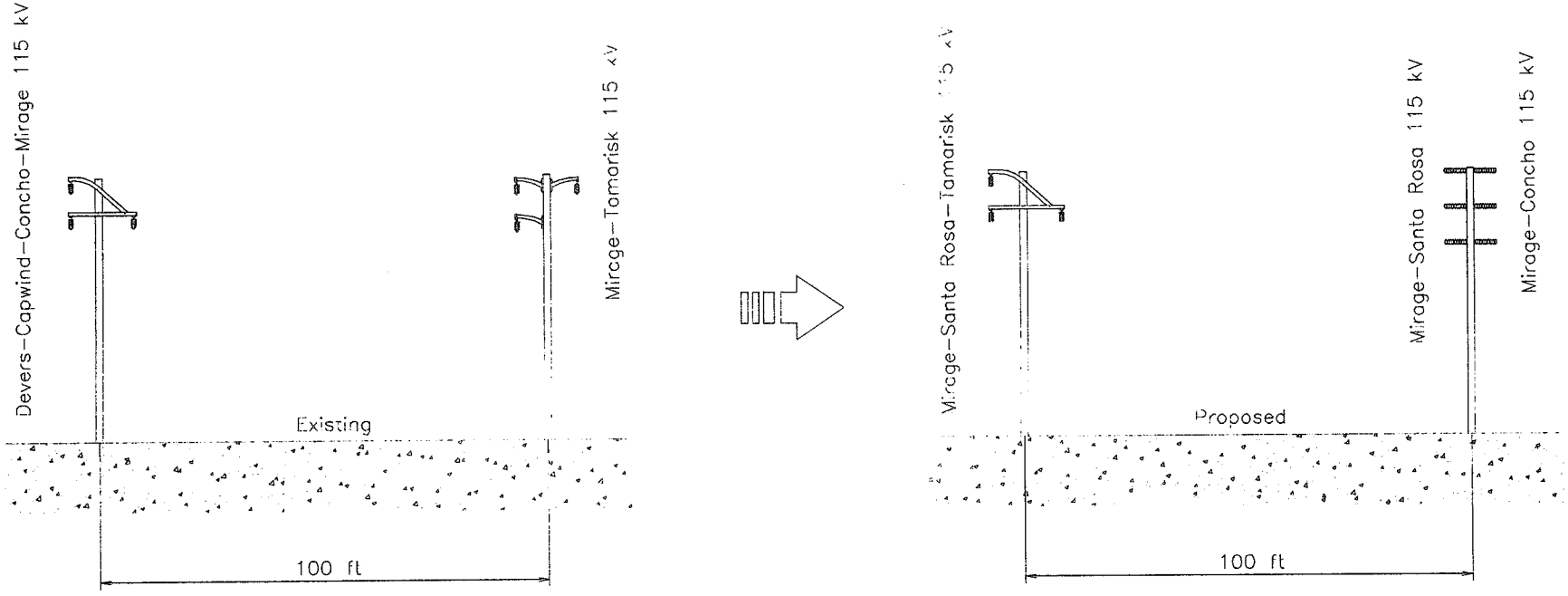


Figure 8. Existing vs. Proposed 115 kV Designs for Area B-Segment 1[29]



[29] In addition to constructing Proposed Subtransmission Lines, SCE would rearrange existing 115 kV subtransmission lines in Area B eliminating any crossovers.

Figure 9. Existing vs. Proposed 115 kV Designs for Area B-Segment 2

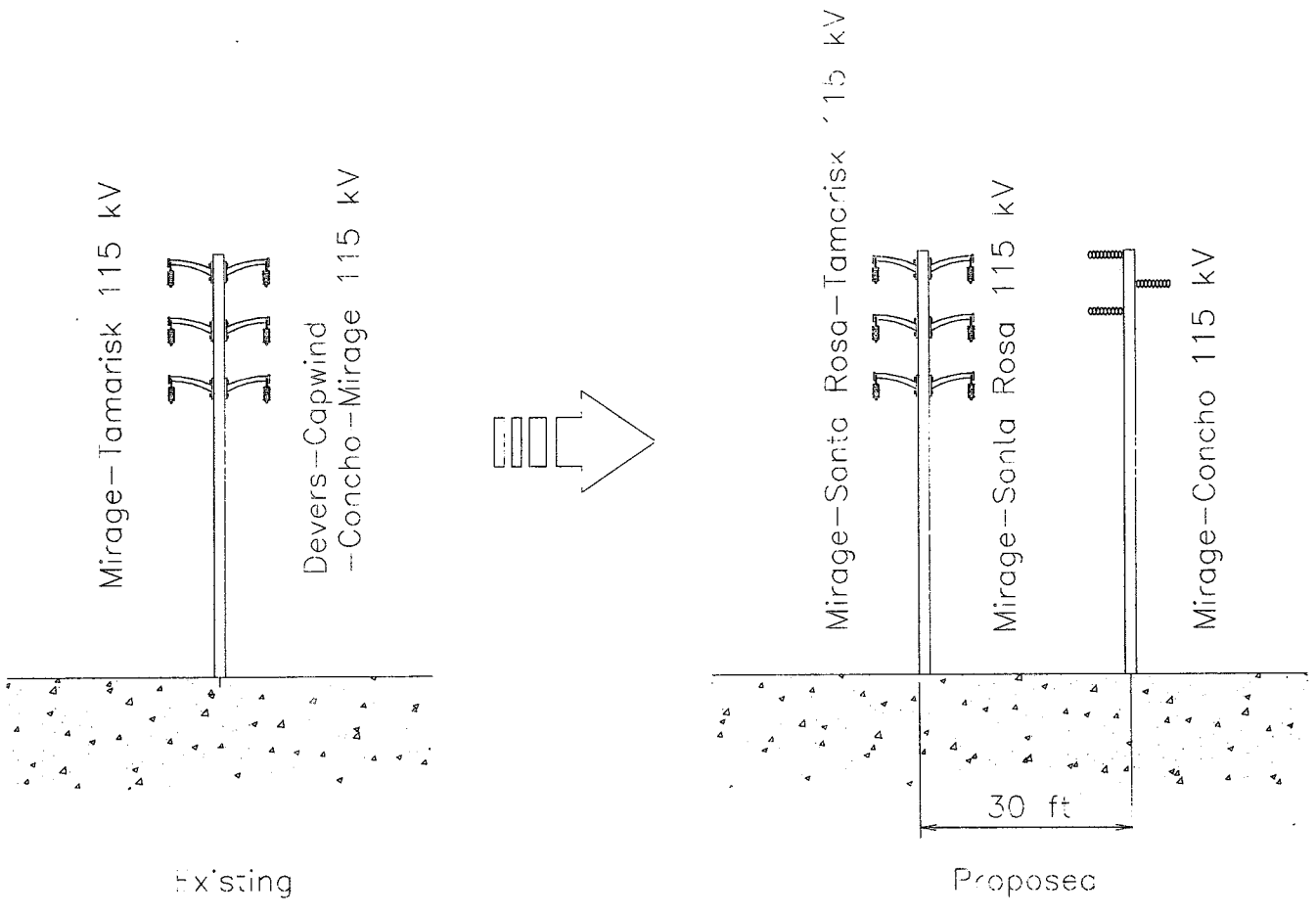
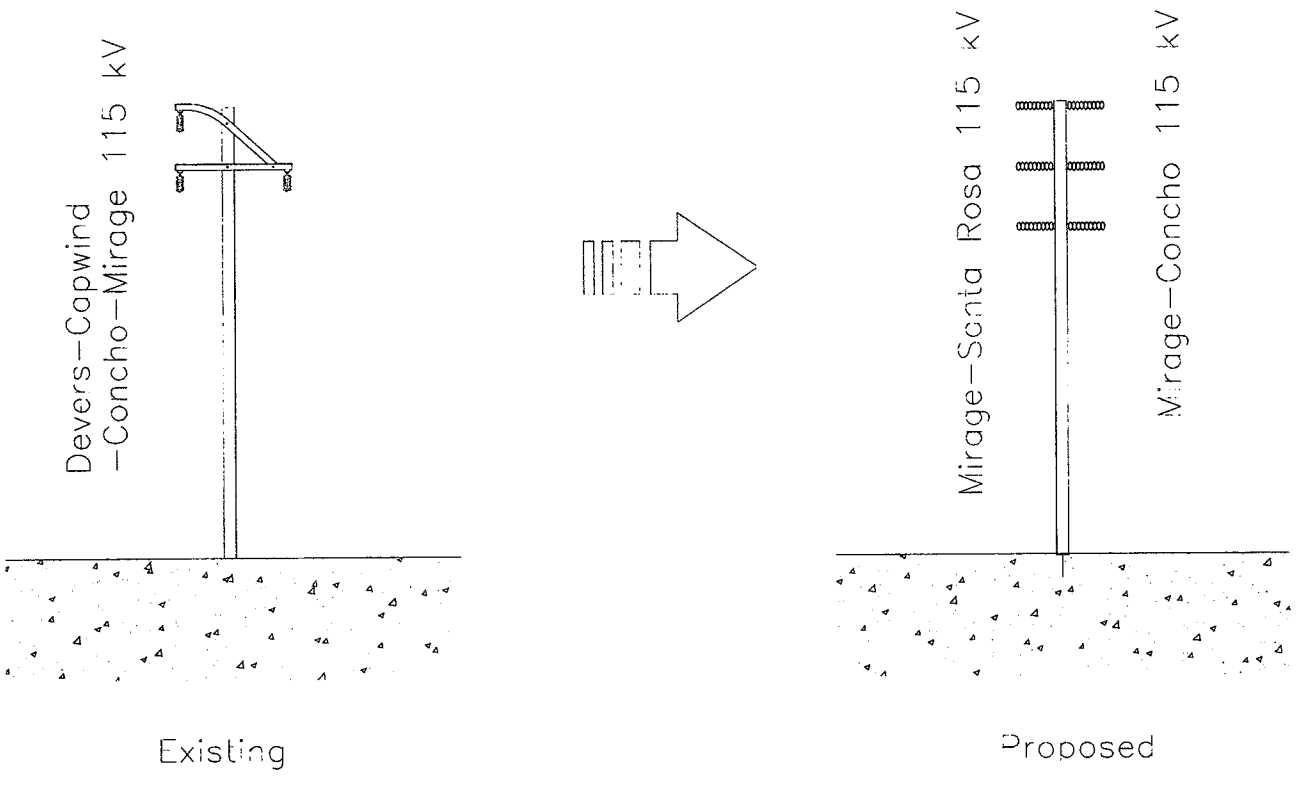


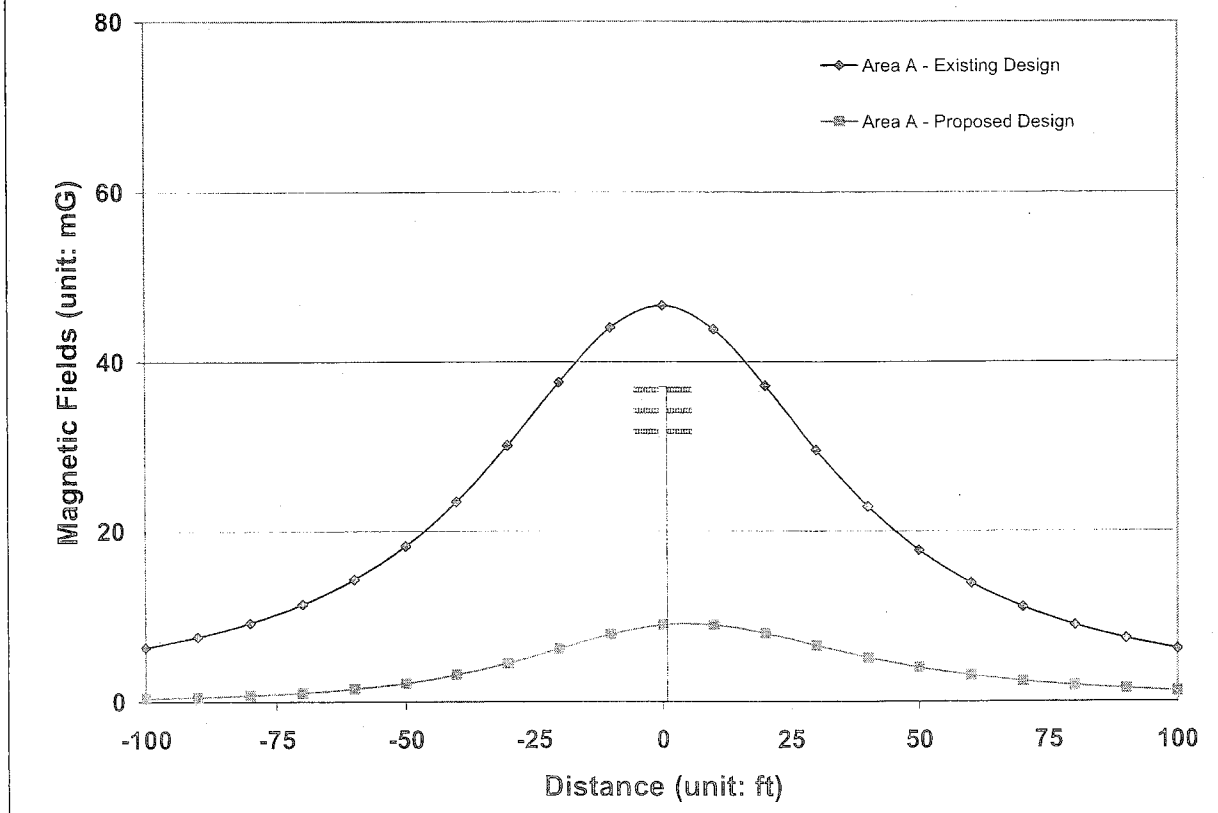
Figure 10. Existing vs. Proposed 115 kV Designs for Area B-Segment 3



The proposed overhead designs for the Proposed Subtransmission Lines can further reduce magnetic field levels by incorporating phasing options relative to the adjacent existing subtransmission lines. For Area A, as show on Figure 7 above, the proposed Garnet-Farrell 115 kV Subtransmission Line would be placed on the same poles with the existing Devers-Farrell-Windland 115 kV Subtransmission Line. Thus, the Proposed Subtransmission Line can be phased, with respect to the existing 115 kV subtransmission line, to further reduce the magnetic field levels for Area A. Figure 11 below shows a comparison between the magnetic field levels of the existing design (i.e. without the Proposed Subtransmission Line) vs. the proposed design (i.e. once the Proposed Subtransmission Line is operational). The model is based upon the forecasted peak loading conditions for 2010 (see §VII-Appendix A for more detailed information about the calculation assumptions and loading conditions). As Figure 11 illustrates, the Proposed Double-Circuit Design (with optimal phasing measures added) would produce lower magnetic fields as compared to the existing design. Near the existing Farrell Substation, there are homes across Gene Autry Trail (left side of Figure 11) and it is surrounded by commercial area. Using additional 5 foot taller poles would not reduce the magnetic fields levels by 15% or more for these homes across Gene Autry Trail; however, 75 feet (above ground) poles would be used near the existing Farrell Substation for engineering requirements; it would reduce the magnetic fields for adjacent commercial area. The rest of the proposed route is undeveloped area where no low-cost magnetic field reduction measures are considered as directed by the CPUC[30].

[30] CPUC Decision 06-01-042, Findings of Fact No. 18, p. 20

Figure 11. A Design Comparison of Magnetic Field Levels for Area A
(Existing Design vs. Proposed Design)



SCE would re-arrange existing 115 kV subtransmission lines in Area B for eliminating any crossovers, and build the Proposed Subtransmission Line (Mirage-Santa Rosa 115 kV) which would parallel the existing 115 kV subtransmission lines as show on Figure 8 to Figure 10 above. Therefore, the Proposed Subtransmission Line can also be phased with existing 115 kV subtransmission lines to further reduce magnetic field levels. Figure 12 to Figure 14 show comparisons between the magnetic field levels of the existing design (i.e. without the Proposed Subtransmission Line) vs. the proposed design (i.e. once the Proposed Subtransmission Line is operational with circuit rearrangements and optimal phasing measures added) for Area B Segment 1 to 3. As Figure 12 to Figure 14 illustrate, the proposed Double-Circuit Design (with

optimal phasing measures added) would produce lower magnetic fields as compared to the existing designs. There are few homes in Area B-Segment 1 (left side of Figure 12) and homes in Area B-Segment 2 (also left side of Figure 14). For these areas, using additional 5 foot taller poles were considered as a low-cost magnetic field reduction measure. However, using 5 foot taller poles would not reduce the magnetic field levels by additional 15% for Area B-Segment 1 and 2. Therefore, using 5 foot taller poles were not recommended.

Figure 12. A Design Comparison of Magnetic Field Levels for Area B-Segment 1 (Existing Design vs. Proposed Design)

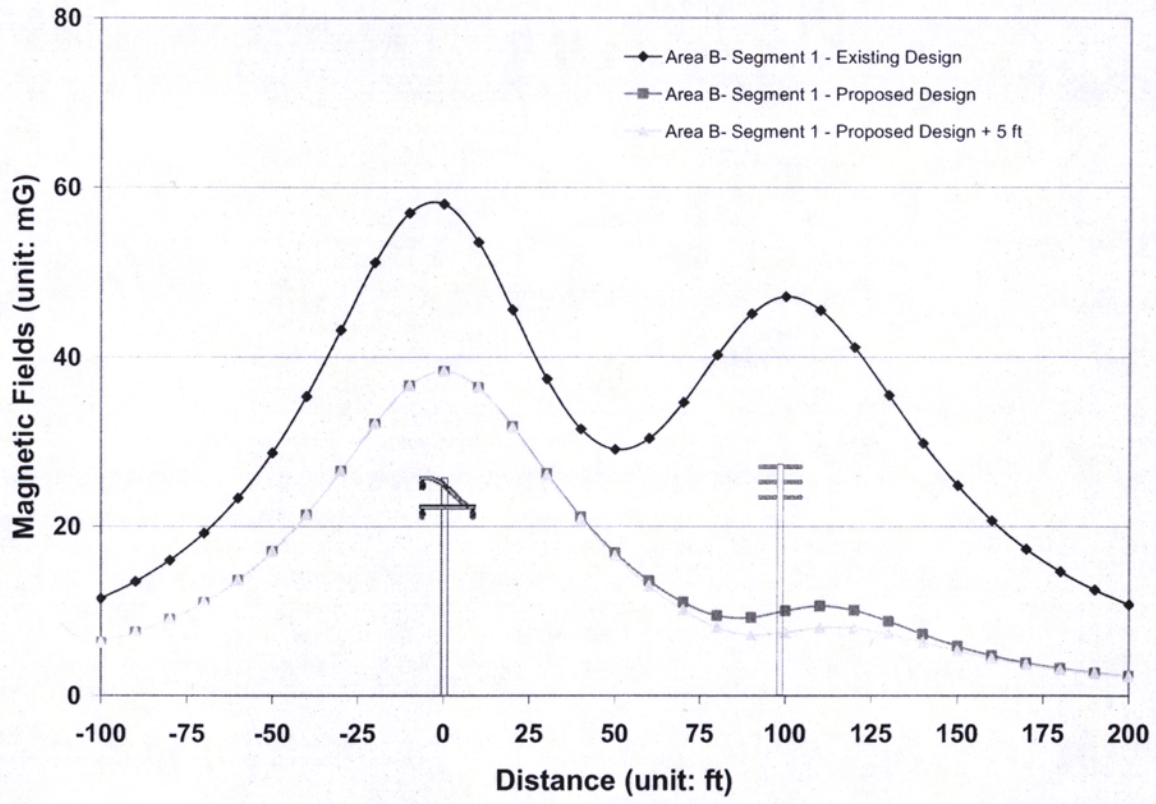


Figure 13. A Design Comparison of Magnetic Field Levels for Area B-Segment 2 (Existing Design vs. Proposed Design)

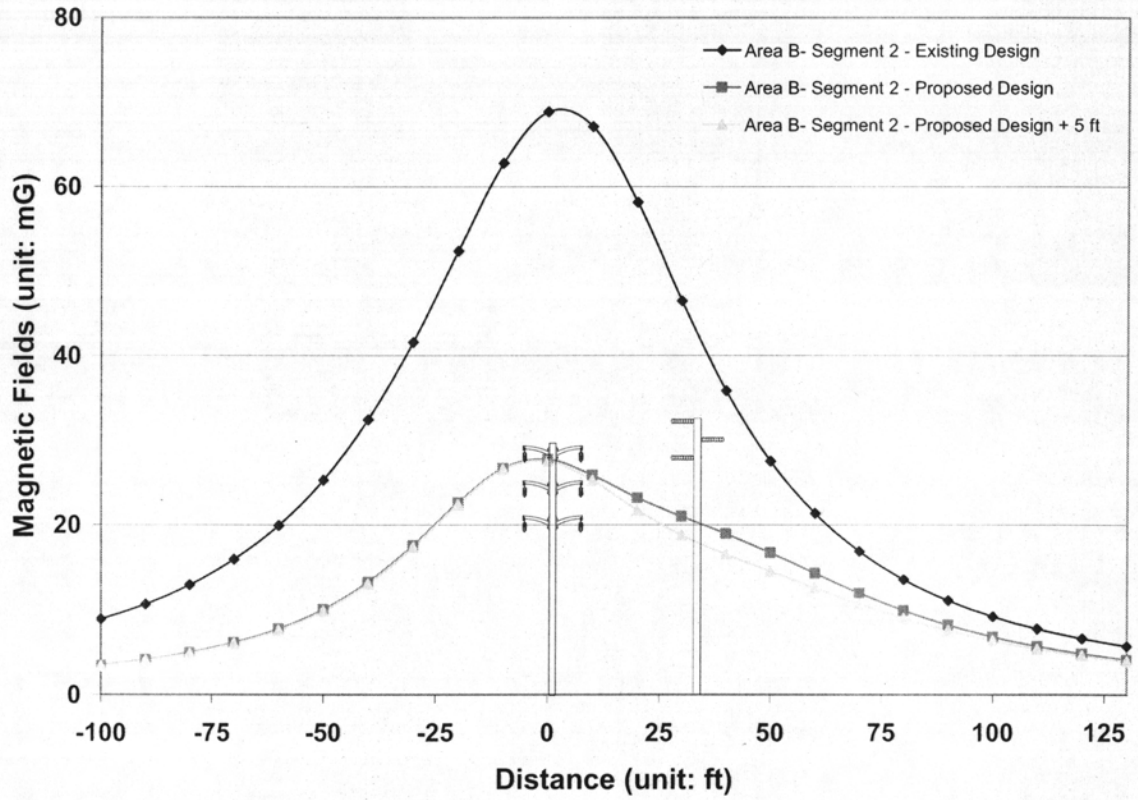
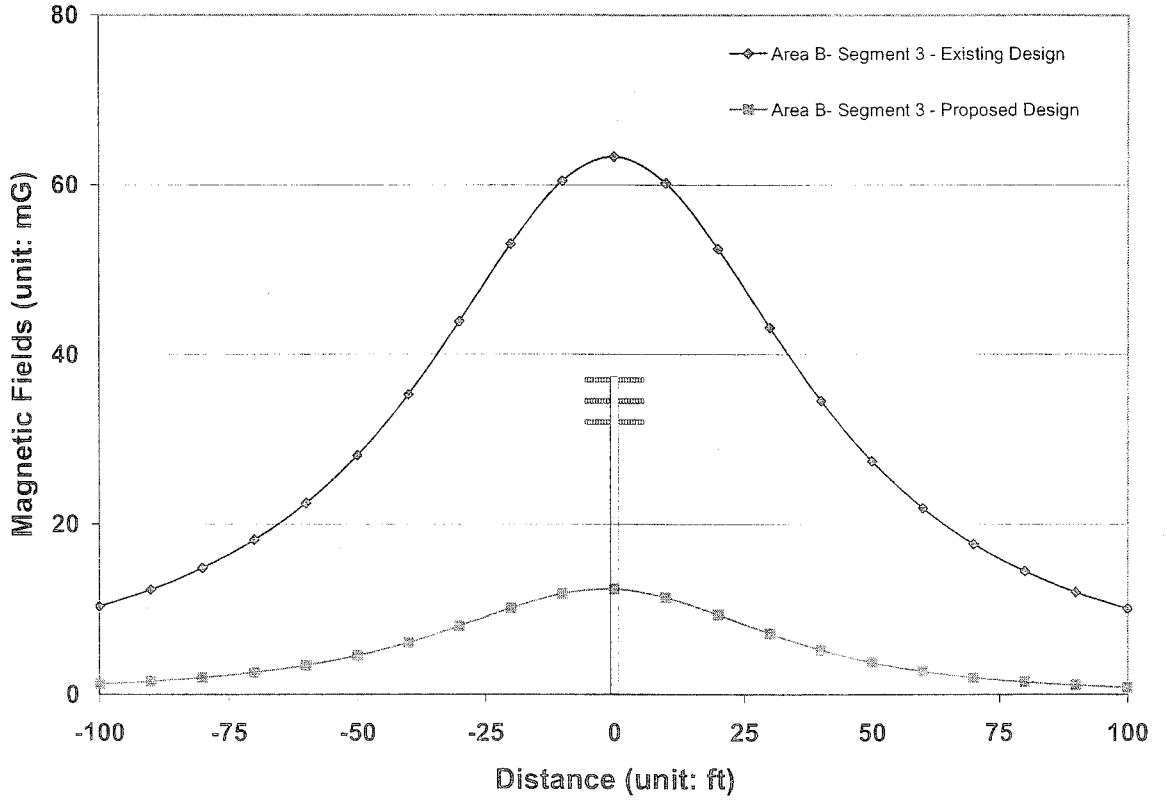


Figure 14. A Design Comparison of Magnetic Field Levels for Area B-Segment 3 (Existing Design vs. Proposed Design)



Project Part 2: Reconfiguring existing 115 kV subtransmission lines

In addition to constructing Proposed Subtransmission Lines, SCE would reconfigure existing 115 kV subtransmission lines to create new ones in Area D and E on Figure 1 as follows:

- Create the Mirage-Capwind-Devers-Tamarisk and Mirage-Santa Rosa-Tamarisk 115 kV subtransmission lines in accordance with the following scope of work:

- Replace two TSPs, one LWS pole, and one wood pole at the intersection of Dinah Shore Drive and Bob Hope Drive with four TSPs, and three LWS poles with three 115 kV pole switches:
- At the northwest corner of Bob Hope Drive and Dinah Shore Drive, replace one TSP with one new LWS pole to obtain the required vertical rise of the existing conductors that would connect to one new TSP.
- At the southwest corner of Bob Hope Drive and Dinah Shore Drive, replace one wood pole with one new LWS pole to obtain the required vertical rise of the existing conductors that would connect to one new TSP.
- At the southeast corner of Bob Hope Drive and Dinah Shore Drive, replace one TSP with one new LWS pole to obtain the required vertical rise of the existing conductors that would connect to one new TSP.
- At the northeast corner of Bob Hope Drive and Dinah Shore Drive, replace one TSP with one new TSP pole to obtain the required vertical rise.
- Split the existing Garnet-Santa Rosa 115 kV subtransmission line at the intersection of Bob Hope Drive and Dinah Shore Drive by removing the span of wire that connects the southwest and northeast corner poles
- Split the Santa Rosa-Tamarisk at the same intersection by dead ending and grounding the Santa Rosa leg at the northwest corner pole.
- Connect the open Tamarisk leg of the former Santa Rosa-Tamarisk 115 kV subtransmission line to the open Garnet leg of the former Garnet-Santa Rosa 115 kV subtransmission line at the northeast corner pole of Bob Hope Drive and Dinah Shore Drive.
- Create the Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line by tapping the former southern segment of the Garnet-Santa Rosa 115 kV

subtransmission line to the Mirage-Tamarisk 115 kV subtransmission line at the northwest corner pole.

- Create the Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission line by installing a span of conductor between the former north segment of the Garnet-Santa Rosa 115 kV subtransmission line and the former west segment of the Santa Rosa-Tamarisk 115 kV subtransmission line at the northwest corner of Bob Hope Drive and Dinah Shore Drive.
- Split the existing Garnet-Santa Rosa 115 kV subtransmission line by dead-ending and grounding the Garnet leg to the new TSP installed east of Date Palm Drive and south of Varner Road.
- Connect the existing Devers-Capwind-Mirage 115 kV subtransmission line to the former Santa Rosa leg of the former Garnet-Santa Rosa 115 kV subtransmission line at the new TSP installed east of Date Palm Drive and south of Varner Road to form the new Mirage-Capwind-Devers-Tamarisk 115 kV subtransmission line.

- Create the new Devers-Eisenhower-Thornhill and the Eisenhower-Tamarisk 115 kV subtransmission lines by rearranging and modifying the existing Tamarisk-Thornhill and Devers-Eisenhower 115 kV subtransmission line in accordance with the following scope of work:
  - Install two TSPs inside Eisenhower Substation.
  - Rearrange the existing Tamarisk-Thornhill 115 kV subtransmission line and attach the Tamarisk tap to the switchrack at Eisenhower Substation to create the Eisenhower-Tamarisk 115 kV subtransmission line.
  - Attach the Thornhill tap of the existing Tamarisk-Thornhill 115 kV subtransmission line to the existing Devers-Eisenhower 115 kV

subtransmission line to create the Devers-Eisenhower-Thornhill 115 kV subtransmission line.

- Upgrade one existing 115 kV subtransmission line position at Devers Substation, upgrade one existing 115 kV subtransmission line at Thornhill Substation, upgrade three existing 115 kV subtransmission lines at Eisenhower Substation, and upgrade one existing 115 kV subtransmission line at Tamarisk substation.
- Replace two 115 kV circuit breakers at Devers Substation and replace three 115kV circuit breakers at Eisenhower Substation.

All proposed reconfiguration activities described above are limited in scope[31] and does not provide significant opportunities to implement magnetic field reduction measures, except for phasing newly created 115 kV subtransmission lines with adjacent subtransmission lines.

Newly created Mirage-Capwind-Devers-Tamarisk 115 kV Subtransmission Line would parallel the newly created Mirage-Tamarisk-Santa Rosa 115 kV Subtransmission Line along Plumley Road and then along Dinah Shore Drive from the existing Tamarisk Substation to the corner of Dinah Shore Drive and Bob Hope Drive in the City of Rancho Mirage; see Figure 1 (Area D) above. Therefore, two circuits can be phased to reduce the magnetic fields as a "low-cost" magnetic field reduction measure.

Newly created Devers-Eisenhower-Thornhill 115 kV Subtransmission Line would parallel the existing Farrell-Eisenhower 115 kV Subtransmission Line along Dinah Shore Drive from Eisenhower Substation to Whitewater River in the City of Palm Springs; Figure 1 (Area E) above. Therefore, two circuits can also be phased to reduce magnetic fields as a "low-cost" magnetic field reduction measure.

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[31] The reconfiguration activity involves significantly less than 2,000 ft of circuit length.

Project Part 3: Install the 220 kV loop-in of Devers-Coachella Valley Transmission Line into Mirage Substation

The Proposed Devers-Coachella Valley 220 kV Loop In at Mirage Substation would include the following work:

- Loop the existing Devers-Coachella Valley 220 kV transmission line into the Mirage Substation along the existing right-of-way, for approximately 0.8 mile, on double-circuit lattice towers, forming the new Devers-Mirage and Coachella Valley-Mirage 220 kV transmission lines in accordance with the following scope of work:
    - Install approximately 7,240 feet of single-circuit 220 kV transmission line on eight new, double-circuit (LSTs. The new towers would be strung with single 1033 kcmil ACSR conductors on new polymer insulators.
    - Remove 4 LSTs and 3,770 feet of existing single-circuit 220 kV transmission line in or near the existing east-west 220 kV right-of-way north of the Mirage Substation.
    - Install one new TSP and 1,000 feet of single-circuit 220 kV transmission line at Mirage Substation and rearrange the Julian Hinds 220 kV transmission line from the existing LSTs on the westside of the 0.81-mile right-of-way to existing LSTs on the eastside of the 0.81-mile right-of-way.
    - Install 1,540 feet of single-circuit 220 kV transmission line and remove 820 feet of single-circuit 220 kV transmission line between the 220 kV switchrack located inside Mirage Substation and the three LSTs and one TSP adjacent to the north fence of Mirage Substation.
- Install two new 220 kV transmission line positions at Mirage Substation.
- Install three new 220 kV circuit breakers at Mirage Substation.

Figure 15. Existing vs. Proposed 220 kV Designs for Area C

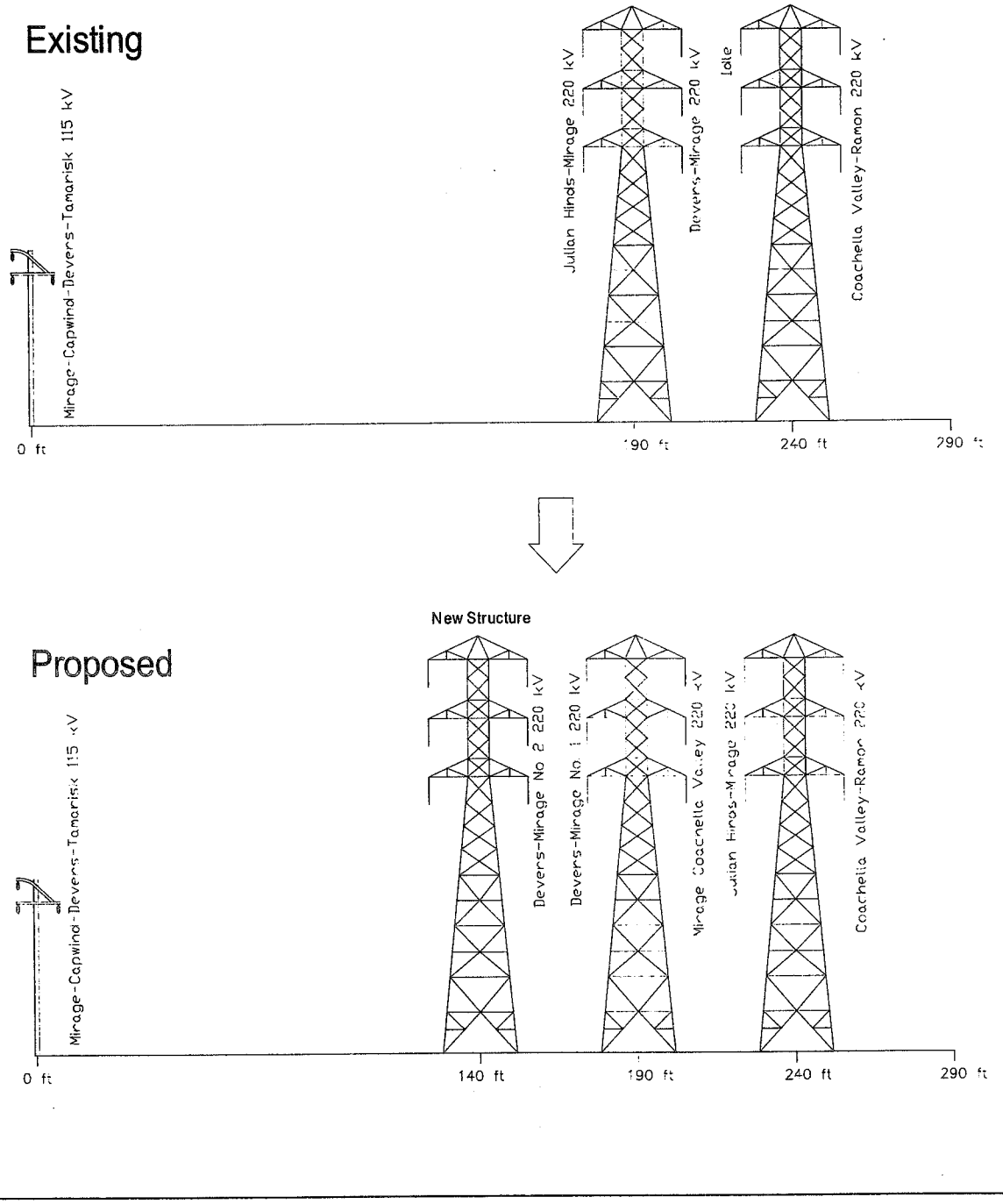


Figure 16. A Design Comparison of Magnetic Field Levels for Area C
(Existing Design vs. Proposed Design)

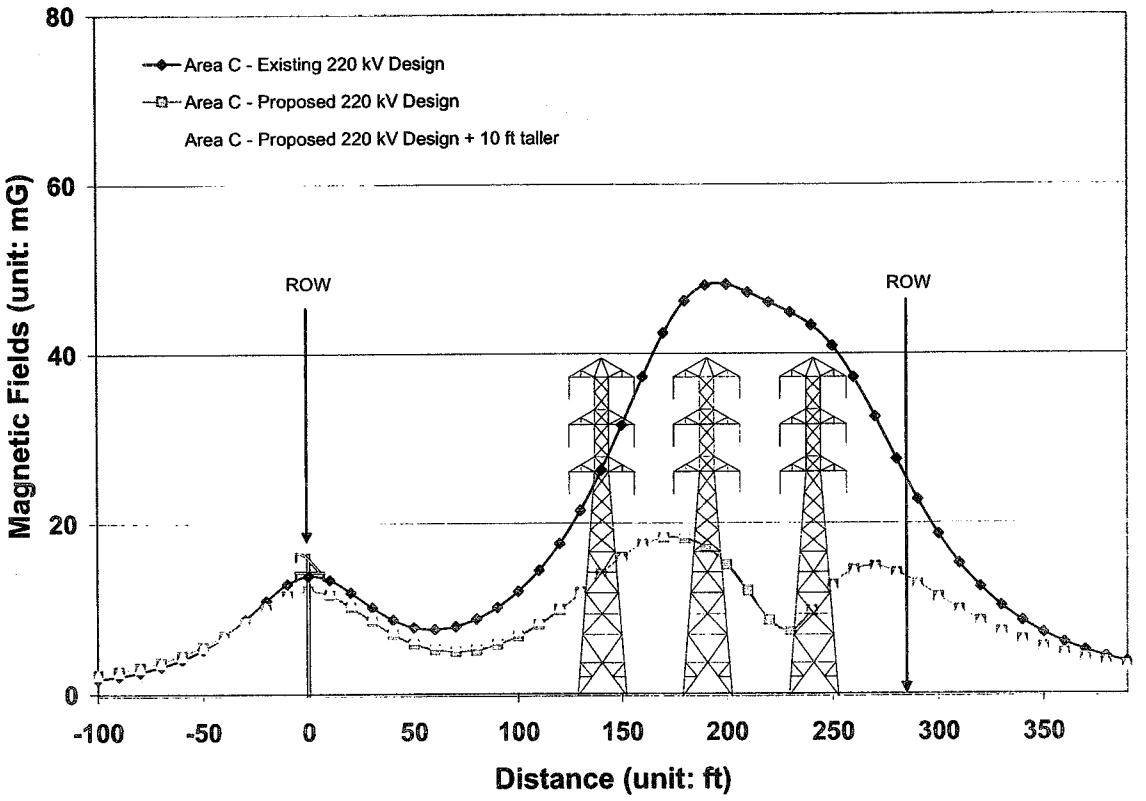


Table 2. A Comparison of Magnetic Fields at Edges of ROW for Area-C

Design Options	Left ROW (mG)	% Reduction	Right ROW (mG)	% Reduction
Area C - Existing 220 kV Design	13.8	Base	22.8	Base
Area C - Proposed 220 kV Design	12.1	12.3	12.9	43.4
Area C - Proposed 220 kV Design + 10 ft taller	12.3	Less than 15% Increase	12.7	1.6

As illustrated on Figure 15, the proposed 220 kV tower would be the same type as the existing 220 kV towers. Residential homes are located on the left-side of Figure 15. Following magnetic field reduction design options were considered.

- Phasing 220 kV transmission lines to reduce the magnetic fields; and
- Using taller 220 kV transmission towers.

As illustrated on Table 2, phasing 220 kV transmission lines would meet the 15% magnetic field reduction requirement. This design option can be applied in to the project as a "low-cost" magnetic field reduction measures. Using taller towers, however, would not meet the 15% magnetic field reduction requirement. Moreover, using taller towers may decrease magnetic field cancellation effects. Thus, using taller towers were considered, but not recommended.

Project Part 4: Constructing limited improvements at existing substations to accommodate Part 1 and 2 above

In order to accommodate all work described in Project Part 1 and 2 above, SCE proposed to construct limited improvements at existing substations. These limited improvements area also limited in scope (i.e. using existing empty circuit positions at substations) and does not provide significant opportunities to implement magnetic field reduction measures. Only applicable activity for considering "no-cost and low-cost" magnetic field measures is installing a 220/115 kV transformer at the existing Mirage Substation according to SCE's EMF Design Guidelines.

The proposed location of the transformer within the substation is more than 50 feet from the substation property line; therefore, the proposed transformer location meets the setback distance specified in the EMF Design Guidelines

Table 3 on page 39 summarizes no-cost and low-cost magnetic field reduction measures that SCE considered for each segment of the Proposed Project:

Table 3. No-cost and Low-cost Magnetic Field Reduction Measures for Area A through E

Area No.	Location[32]	Adjacent Land Use[33]	MF Reduction Measures Considered	Estimated Cost to Adopt	Measure(s) Adopted? (Yes/No)	Reason(s) if not adopted
Area A	From Garnet Substation to Farrell Substation	2, 3, 6	◦ Taller poles ◦ Pole-head configuration ◦ Phase Circuit	◦ Low-Cost ◦ No-Cost ◦ Low-Cost[34]	◦ Yes ◦ Yes ◦ Yes	
Area B – Segment 1	From Mirage Substation to Vista De Oro & Calle Francisco	2, 6	◦ Taller poles, ◦ Pole-head configuration ◦ Phase Circuit	◦ Low-Cost ◦ No-Cost ◦ No-Cost	◦ Yes ◦ Yes ◦ Yes	
Area B – Segment 2	From Area B-Segment 1 to Vista De Oro & Calle Tosca	2	◦ Taller poles, ◦ Pole-head configuration ◦ Phase Circuit	◦ Low-Cost ◦ No-Cost ◦ No-Cost	◦ Yes ◦ Yes ◦ Yes	
Area B – Segment 3	From Area 3-Segment 1 to Vista De Oro & Adjacent to I-10 Freeway	6	◦ Taller poles, ◦ Pole-head configuration ◦ Phase Circuit	◦ Low-Cost ◦ No-Cost ◦ No-Cost	◦ Yes ◦ Yes ◦ Yes	
Area C	0.8 mile north of Mirage Substation to Mirage Substation	2, 6	◦ Phase Circuit ◦ Taller Structures	◦ Low-Cost ◦ Low-Cost	◦ Yes ◦ No	Less than 15% Reduction
Area D	From Tamarisk Substation to the corner of Dinah Shore Drive and Bob Hope Drive along Dinah Shore Drive	1, 2, 3	◦ Phase Circuits	◦ Low-Cost	◦ Yes	
Area E	From Eisenhower Substation to Whitewater River along Dinah Shore Drive	2, 3	◦ Phase Circuits	◦ Low-Cost	◦ Yes	
Mirage Sub	Within the existing substation	2	◦ 50 ft or more setback distance of the proposed transformer from the substation property line	◦ No-Cost	◦ Yes	

[32] This column shows the nearest cross streets or substation names as reference points.

[33] Land usage codes are as follows: 1) schools, licensed day-cares, and hospitals, 2) residential, 3) commercial/industrial, 4) recreational, 5) agricultural, and 6) undeveloped land.

[34] SCE may need to rephrase (or transpose) existing 115 kV subtransmission lines.

This FMP includes only no-cost and low-cost magnetic field reduction measures for SCE's Proposed Subtransmission Line routes. SCE's Proponent's Environmental Assessment (PEA) contains various project alternatives, including various alternative line routes. If any alternative route is chosen for this project, a supplemental FMP will be prepared, along with an engineering design.

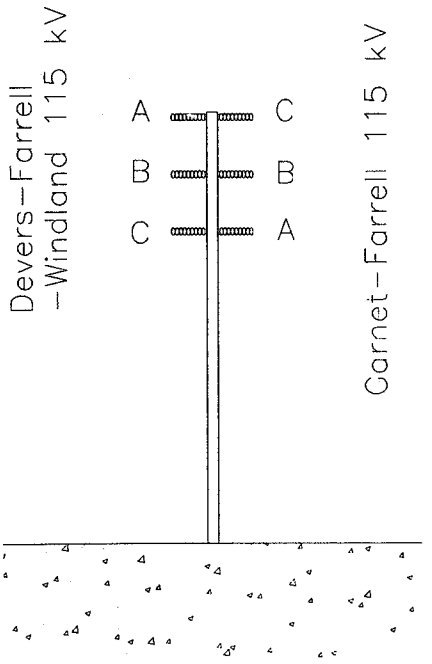
VI. FINAL RECOMMENDATIONS FOR IMPLEMENTING NO-COST AND LOW-COST MAGNETIC FIELD REDUCTION MEASURES

In accordance with the "EMF Design Guidelines", filed with the CPUC in compliance with CPUC Decisions 93-11-013 and 06-01-042, SCE would implement the following no-cost and low-cost magnetic field reduction measures for this project. These recommended magnetic field reduction measures would be uniformly and equitably applied to the entire Proposed Subtransmission Line route:

For Area A:

- Using taller poles (typically 65 to 70 feet above the ground, except in areas near the Farell Substation, it would be about 75 feet above ground);
- Using a double-circuit pole-head configuration (or similar) as shown on Figure 5
- Phasing the Proposed Subtransmission Line with respect to the existing 115 kV subtransmission line as shown on Figure 17 below:

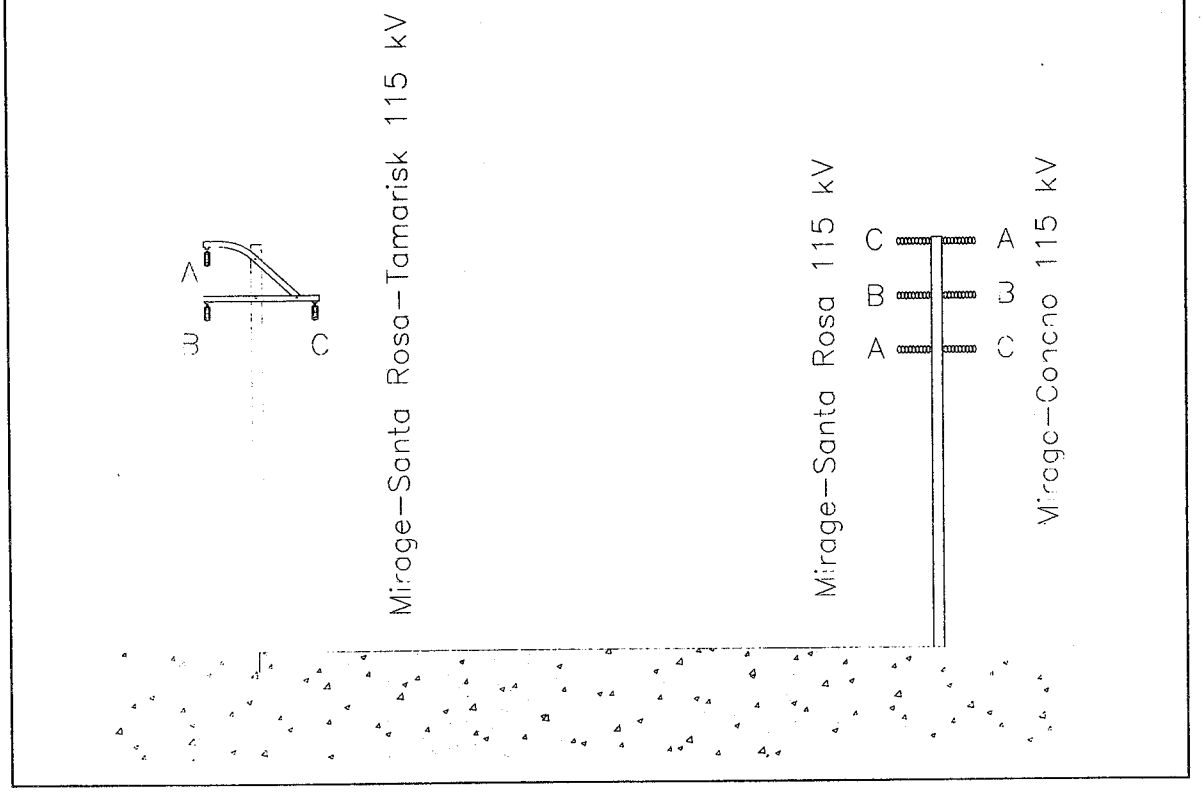
Figure 17. Proposed 115 kV Phasing Arrangement for Area A



For Area B – Segment 1:

- Using taller poles (typically 65 to 70 feet above the ground);
- Using a double-circuit pole-head configuration as shown on Figure 5
- Phasing the Proposed Subtransmission Line with respect to the existing 115 kV subtransmission line as shown on Figure 18 below:

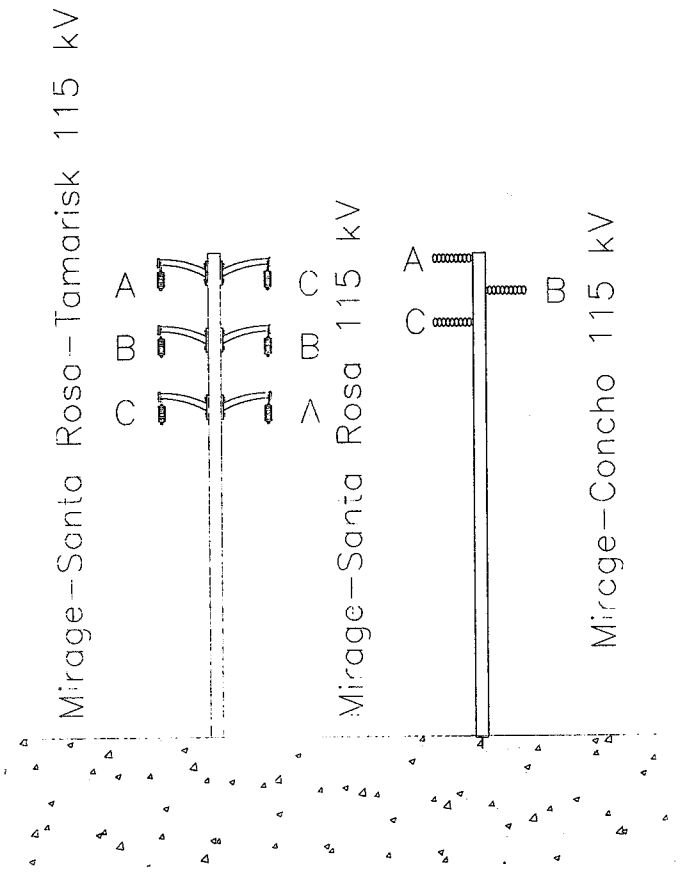
Figure 18. Proposed 115 kV Phasing Arrangements for Area B – Segment 1



For Area B – Segment 2:

- Using taller poles (65 to 70 feet above the ground);
- Using a triangle configuration as shown on Figure 4;
- Phasing the Proposed Subtransmission Line with respect to the existing 115 kV subtransmission lines as shown on Figure 19 below:

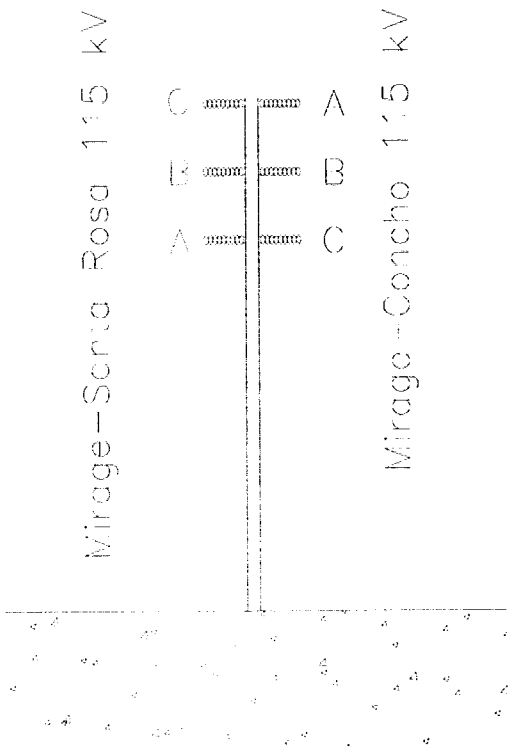
Figure 19. Proposed 115 kV Phasing Arrangements for Area B – Segment 2



For Area B – Segment 3:

- Using taller poles (typically 65 to 70 feet above the ground)
- Using a double-circuit pole-head configuration as shown on Figure 5;
- Phasing the Proposed Subtransmission Line with respect to the existing 115 kV subtransmission line as shown on Figure 20 below:

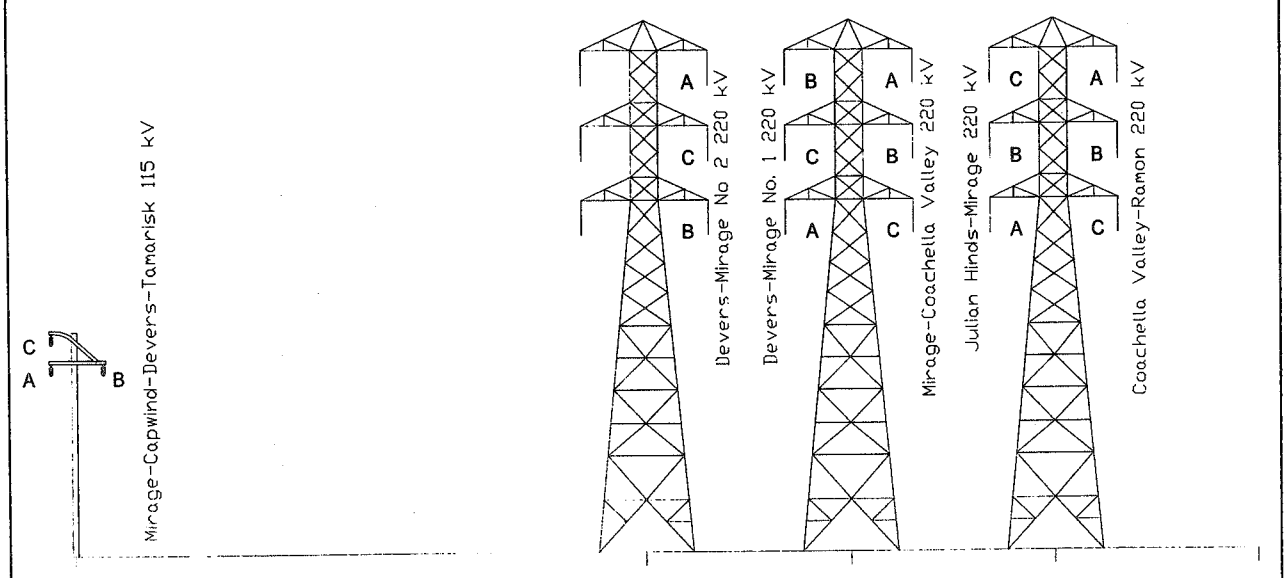
Figure 20. Proposed 115 kV Phasing Arrangements for Area B – Segment 3



For Area C:

- Phasing the newly created transmission line with respect to the existing 220 kV transmission lines as shown on Figure 21.

Figure 21. Proposed 220 kV Phasing Arrangements for Area C

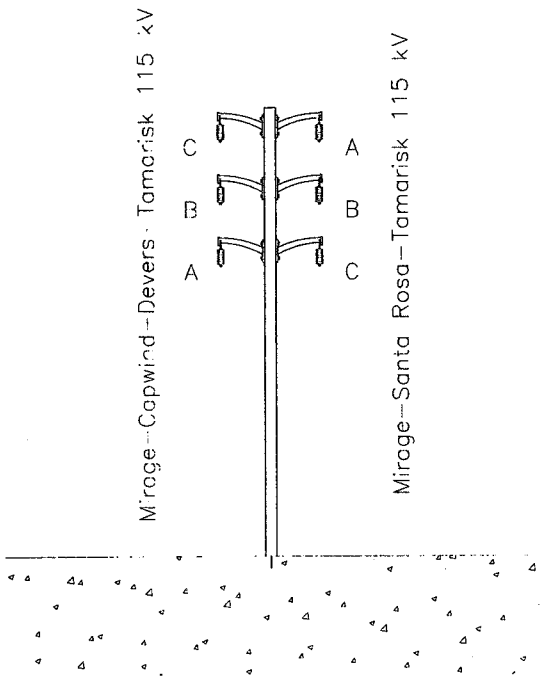


Note: All phasing sequences would be remained the same, except Devers-Mirage 220 kV and Julian Hinds-Mirage 220 kV transmission lines.

For Area D:

- Phasing the newly created subtransmission line with respect to the existing 115 kV subtransmission line as shown on Figure 22 below.

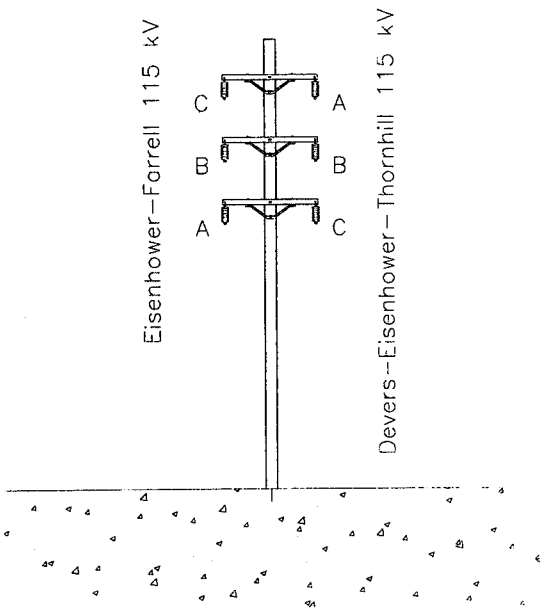
Figure 22. Proposed 115 kV Phasing Arrangements for Area D



For Area E:

- Phasing the newly created subtransmission line with respect to the existing 115 kV subtransmission line as shown on Figure 23 below.

Figure 23. Proposed 115 kV Phasing Arrangements for Area E



For existing Mirage Substation:

- Placing the proposed 220/115 kV transformer 50 feet (or more) distance from the substation property line.

SCE's plan for applying the above no-cost and low-cost magnetic field reduction measures equitably and uniformly for the Proposed Subtransmission Line is consistent with the CPUC's EMF Decisions No. 93-11-013 and No. 06-01-042, and also with recommendations made by the U.S. National Institute of Environmental Health Sciences. Furthermore, the recommendations above meet the CPUC approved EMF Design Guidelines as well as all applicable national and state safety standards for new electric facilities.

VII. APPENDIX A: TWO-DIMENTIONAL MODEL ASSUMPTIONS AND YEAR 2010 FORECASTED LOADING CONDITIONS

Magnetic Field Assumptions:

SCE' uses a computer program titled "MFields"[35] to model the magnetic field characteristics of various transmission and subtransmission line designs and magnetic field reduction measures. Typical two-dimensional magnetic field modeling assumptions include:

- All transmission and subtransmission lines would be considered operating at forecasted loads (see Table 4 and Table 5 below) and all conductors are straight and infinitely long;
- Five feet of sagging for all 115 kV overhead subtransmission line designs;
- Typical 40 ft minimum ground clearance for all 220 kV overhead transmission designs;
- Average sagging for all 220 kV overhead transmission designs (average sagging is approximately equal to 1/3 of sagging plus minimum clearance to the ground);
- All poles and towers are located next to each other;
- Magnetic field strength is calculated at a height of three feet above ground;
- Resultant magnetic fields are being used;
- All line currents are balanced (i.e. neutral or ground currents are not considered);
- Terrain is flat; and
- Dominant power flow directions are being used.

Table 4. Year 2010 Forecasted Loading Conditions 115 kV Subtransmission Lines		
Circuit Name	Without Proposed Project (Amp)	With Proposed Project (Amp)
Devers-Capwind-Concho-Mirage 115 kV	1146	N/A
Mirage-Concho 115 kV	N/A	694
Mirage-Tamarisk 115 kV	1111	N/A
Mirage-Santa Rosa-Tamarisk 115 kV	N/A	704

35 Kim, C, MFields for Excel, Version 2.0, 2007.

Table 4. Year 2010 Forecasted Loading Conditions 115 kV Subtransmission Lines		
Circuit Name	Without Proposed Project (Amp)	With Proposed Project (Amp)
Devers-Farrell-Windland 115 kV	680	448
Garnet-Farrell 115 kV	N/A	528
Mirage-Santa Rosa 115 kV	N/A	727

Notes:

1. Forecasting data shown above are applicable to subtransmission line segments for magnetic field models for Area A and B.
2. The power flow direction is from Mirage Substation to other substations connected, and Farrell Substation receives power from other substations connected as they are listed above.
3. Forecasted loading data is based upon scenarios representing load forecasts for the year 2010. The forecasting data is subject to change depending upon availability of generations, load increase, changes in load demand, and by many other factors.
4. "Without Proposed Project" indicates the year 2010 forecasted loading conditions if the Proposed Project is not operational.

Table 5. Year 2010 Forecasted Loading Conditions for 220 kV and 115 kV Transmission and Subtransmission Lines near Mirage Substation		
Circuit Name	Without Proposed Loop-In (Amp)	With Proposed Loop-In (Amp)
(Coachella Valley)-Ramon 220 kV	681	585
Mirage-(Julian Hinds) 220 kV	839	826
Devers-(Mirage) No. 1 220 kV[36]	270	372
Devers-(Mirage) No. 2 220 kV	N/A	373
Devers-(Coachella Valley) 220 kV	497	N/A
(Coachella Valley)-Mirage 220 kV	N/A	608
(Mirage)-(Capwind)-(Devers)-Tamarisk	219	219

Notes:

1. Names in parenthesis indicate that the power is flowing from them to others (names without parenthesis)
2. Forecasting data shown above are applicable to transmission and subtransmission line segments for magnetic field models for Area C only

[36] The existing transmission name is "Devers-Mirage 220 kV."

CERTIFICATE OF SERVICE

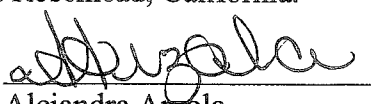
I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of the **APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) FOR A PERMIT TO CONSTRUCT ELECTRICAL FACILITIES WITH VOLTAGES BETWEEN 50KV AND 200KV: DEVERS-MIRAGE 115 KILOVOLT SUBTRANSMISSION SYSTEM SPLIT PROJECT** on the parties identified below. Service was effected by placing the copies in properly addressed sealed envelopes and depositing such envelopes in the United States mail with first-class postage prepaid (Via First Class Mail).

Mr. B.B. Blevins
Executive Director
California Energy Commission
1516 9th Street, MS3-39
Sacramento, CA 95814-5512
(3 copies)

Mr. Kenneth Lewis
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
(2 copies)

Ms. Dana Appling
Division of Ratepayer Advocates
505 Van Ness Ave.
San Francisco, CA 94102

Executed January 31, 2008, at Rosemead, California.



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Appendix B Section 3

Electric and Magnetic Fields Field Management Plan for the Alternatives

ESA

Q31. *Appendix F addresses EMF effects and mitigation for the Proposed Project only. An assessment of EMF effects has not been provided for Alternative Routes 2, 3 and 5 illustrated in Figures 2.3 and 2.4. Please provide an assessment of EMF effects along these alternative routes.*

The following sections provide an evaluation of no-cost and low-cost magnetic field reduction measures for each alternative route. Please note that different routes (i.e. different circuit length and subtransmission line designs) would mean different line impedances. Therefore, the forecasted loadings would be slightly different than listed on Table 4 in the SCE's FMP. These differences, however, would not affect on evaluating no-cost and low-cost magnetic field reduction measures. Therefore, the same loading conditions are used for Alternative Route 2 and 5.

No-Cost and Low-Cost Evaluations of Alternative Route 2

For Alternative Route 2, the Proposed Subtransmission Line construction would be consisted of:

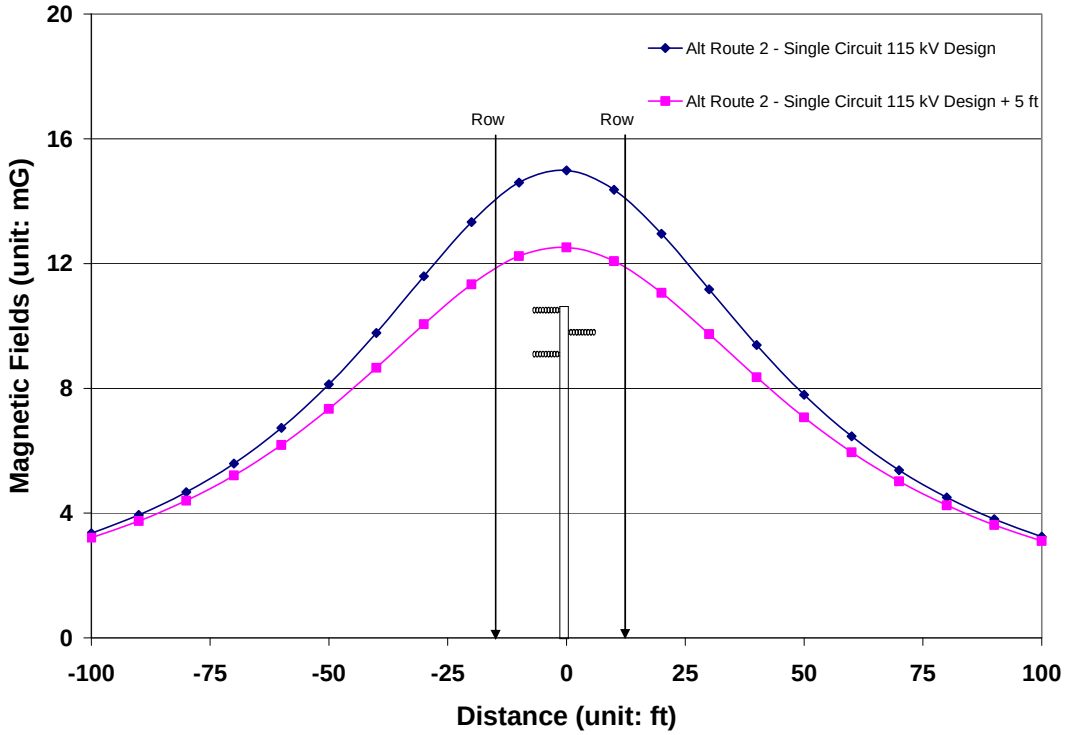
- Approximately 4 miles of single-circuit overhead 115 kV design;
- Approximately 1.5 miles of double-circuit design; and
- Approximately 0.5 miles of underground design.

The Proposed Single-Circuit Design, as described in the SCE's FMP, can be applied in Alternative Route 2. However, unlike the Proposed Route, there are established homes and communities in this route. The applicable no-cost and low-cost magnetic fields reduction measures for this segment are:

- Choosing "triangle" pole-head configuration; and
- Choosing taller poles.

Proposed Single-Circuit Design (typical rage of pole height is 65 to 95 feet above ground) meet or exceeds the "Preferred Design" described above. Furthermore, as Figure 1 illustrates, using 5 feet taller poles would meet the 15% magnetic field reduction criterion (please note that the distance between the edges of ROW to the centerline of poles would change 5 to 10 feet depending upon locations) at the edges of ROW. Therefore, if this route is chosen, 5 feet taller pole would be recommended as a low-cost option in the area where there are homes; that is, typical pole height is 70 feet above ground.

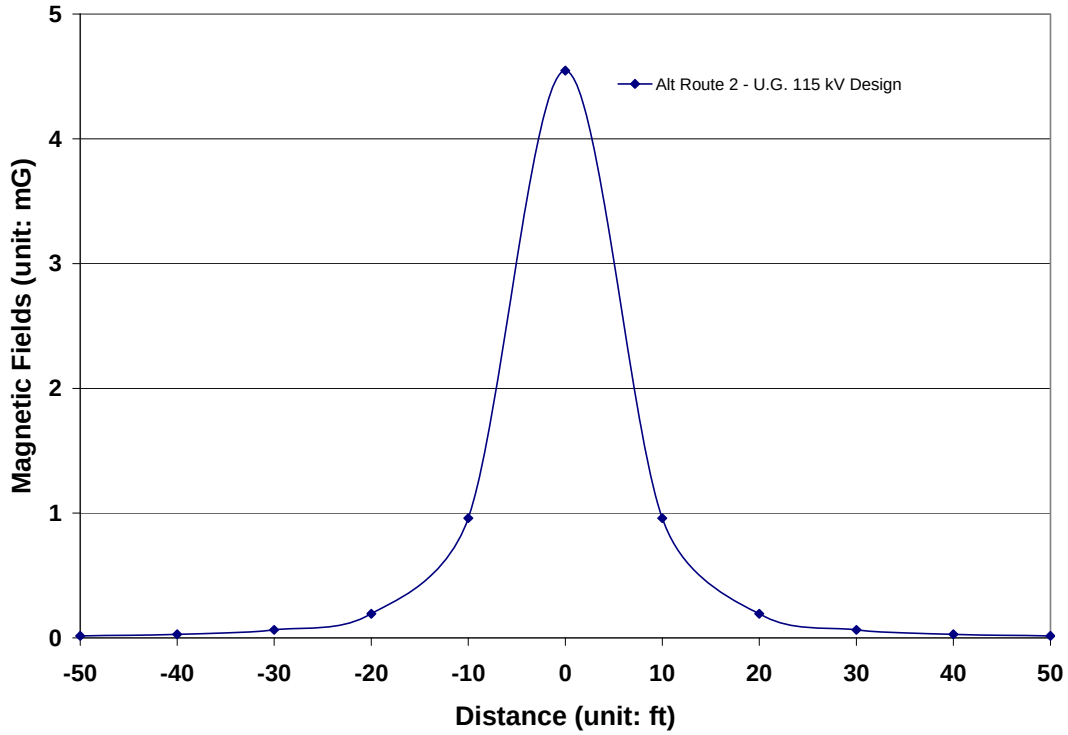
Figure 1 A Design Comparison of Magnetic Fields for Alt. Route 2 (Single-Circuit 115 kV Designs)[1]



From San Rafael Road to Four Seasons Boulevard, approximately 0.5 mile would be constructed undergrounded. For constructing an underground 115 kV subtransmission line, two 115 kV underground cables per phase would be needed. This design, therefore, would give the option of split-phasing as shown on Figure 2. Thus, 115 kV underground cables' phasings would be arranged to reduce the magnetic fields.

[1] The model is based upon 65 foot tall poles (above the ground). Typical pole height would be 65 to 95 feet above ground; 95 foot tall pole would be needed for converting an overhead to underground.

Figure 2 Underground 115 kV Design for Alternative Route 2 with Phasing Option Added



For double-circuit design portion of Alternative 2 is identical as the Proposed Route, please refer to the Figure 11 of SCE's FMP.

No-Cost and Low-Cost Evaluations of Alternative Route 3

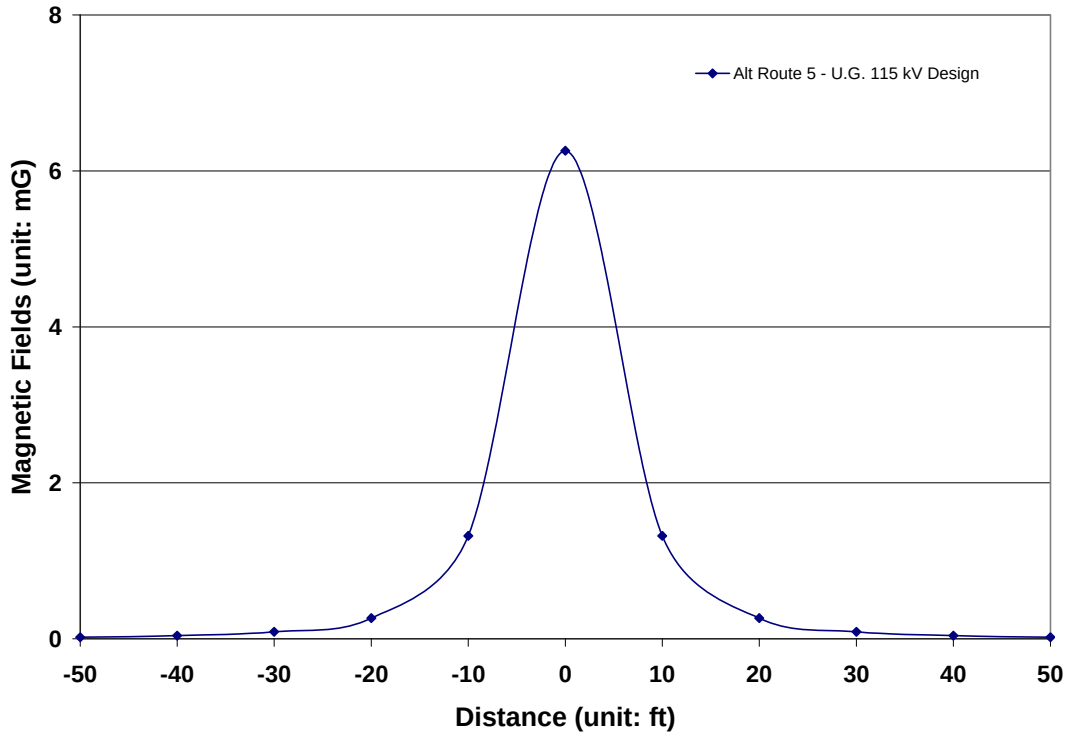
The scope of Alternative Route 3 would include the construction of approximately 6.5 miles of single-circuit 115 kV subtransmission lines. Please refer to the no-cost and low-cost evaluation discussion as described for Alternative Route 2 above. Like Alternative Route 2, the Alternative Route 3 would pass established communities and homes. If this route is chosen, 5 feet taller pole would be recommended as a low-cost option in the area where there are homes.

No-Cost and Low-Cost Evaluations of Alternative Route 5

Alternative Route 5 would include approximately 1.9 miles of underground cable, installed from Mirage Substation west on Ramon Road to Monterey Avenue, south on Monterey Avenue to Varner Road, then southeast on Varner Road to a point where it would join the Mirage-Concho-115 kV overhead subtransmission line. Unlike the Proposed Route, Alternative Route 5 would pass under the middle of three streets that

run through light commercial, industrial, and residential neighborhoods. For constructing an underground 115 kV subtransmission line, two underground cables per phase would be needed. This design, therefore, would give the option of split-phasing as shown on Figure 3. Thus, 115 kV underground cables' phasings would be arranged to reduce the magnetic fields.

Figure 3 Underground 115 kV Design for Alternative Route 5 with Phasing Option Added



Alternative Route 5 would cross the I-10 overhead on TSPs and would connect to an existing overhead line south of the I-10. This is an undeveloped area. According to the CPUC's Decision 06-01-042, no evaluation of low-cost magnetic field reduction measures is needed, thus, not presented.

Please note that, in the context of CPUC's EMF Policy, SCE's Proposed Routes are better choices over Alternative Routes 2, 3, and 5 for following reasons.

- Alternative Routes 2, 3, and 5 passes through established homes and communities where there are no subtransmission lines present;
- Proposed routes provide opportunities for implementing effective no-cost and low-cost magnetic fields reduction measures in relation to existing subtransmission lines; especially phasing the proposed subtransmission lines with respect to existing subtransmission lines as clearly illustrated in Figures 11 through 14 in SCE's FMP; and
- All alternative routes are longer in length compared to the proposed routes.

Appendix C
Air Quality

ESA

Organization of Appendix C

A number of revisions were made to the air quality calculations presented in the Proponent's Environmental Assessment. This appendix provides the basis for each revision and presents the revised tables that were used in place of tables presented in Appendix F-1 of the PEA.

Localized Significance Thresholds

The LST analysis presented in the PEA normalized emission rates for construction of transmission lines and subtransmission lines assuming that 500 meters (0.31 miles) of activity would impact one receptor. This value was then divided by the total length of the transmission lines (11.7 miles) to get an adjustment factor of 0.02. The maximum daily emissions were then multiplied by 0.02 to 'normalize' for the amount of construction that would occur over one day. Adjusting the maximum daily emissions by a factor of 0.02 does not represent a conservative analysis since the emissions rates are already adjusted to represent a maximum daily emission rate. Since the entire length of the transmission line will not be constructed over one day, adjusting the daily emissions by a factor of 0.02 is not appropriate.

Furthermore, the LST analysis presented in the PEA did not adjust daily emission rates to represent 'on-site' emissions only. This represents an overly-conservative analysis for substation construction activities.

Table C-1 presents the revised LST analysis that is presented in this DEIR. These emission rates are adjusted to represent on-site emissions only. Therefore, fugitive dust emissions from travel on paved and unpaved roads and worker vehicle emissions were not included. However, mass grading emissions from substation improvement activities were included since these emissions will be generated on-site. The bulk of on-site emissions results from operation of heavy duty construction equipment on the project site.

Table C-1 also presents revised LST mass rate thresholds based on the new state ambient air quality standard of 0.18 ppm for NOx. The original LST mass rate threshold was developed based on the ambient air quality standard of 0.25 ppm, and is therefore no longer applicable.

Maximum Daily Emissions

Changes described in this appendix resulted in new maximum daily emission rates from a number of activities. Tables C-2 and C-3 show the revised maximum daily combined emissions and maximum daily emissions from each project component respectively. Also, in Appendix F-1 of the PEA the maximum daily PM2.5 exhaust emissions from on-site vehicles were calculated based on the assumption that 20.8 percent of exhaust PM10 is less than 2.5 microns in diameter. The SCAQMD suggests that approximately 92 percent of all PM10 generated during diesel fuel combustion is less than 2.5 microns in diameter, thus the PM2.5 emission rates from on-site vehicles were adjusted to reflect this fraction (SCAQMD, 2006). Table C-4 presents a revised summary table of fugitive emissions based on changes to paved and unpaved emission rates described in this appendix.

Mass Grading Emission Factor for Substation Grading

Fugitive dust emissions from site grading were estimated in the PEA using the AP-42 emission factor of 80 pounds per are per day. The AP-42 section that provides this emission factor warns that the factor represents total suspended particulate (TSP) matter generated during mass grading (not necessarily particulate matter less than 10 microns in diameter). The SCAQMD suggests that approximately 48.9 percent of TSP generated during grading activities is 10 microns or less in diameter (PM10) and that 20.8 percent of this PM_{10} is less than 2.5 microns in diameter (PM2.5) (SCAQMD, 2006). Therefore, the emission factor was adjusted to 39 pounds of PM10 per acre per day and 8 pounds of PM2.5 per acre per day. Revised emissions from substation grading are presented in Table C-5. This table also includes a summary of revised fugitive emission rates from travel on unpaved roads during substation construction activities.

Unpaved Road Emission Factors

Fugitive dust emission rates from travel on unpaved roads were estimated in the PEA assuming a 60 percent control efficiency from watering roads twice per day. The SCAQMD recommends a control efficiency of 55 percent for watering of unpaved roads (SCAQMD, 2008a). Table C-6 shows revised emission rates from travel on unpaved roads assuming 55 percent control efficiency rather than 60 percent control efficiency.

Paved Road Emission Factors

For control of fugitive emissions from travel on paved roads, the SCAQMD recommends a control efficiency of 16% for local streets and 26% for arterial/collector streets from street sweeping (SCAQMD, 2008b) while the PEA appendix assumes 60% control for heavy duty truck travel per the 1993 SCAQMD CEQA guidance. Table C-7 shows the corrected emission factor for heavy duty truck travel on paved roads while Table C-8 presents the adjusted emission rates from travel on paved roads based on the adjusted emission factor.

References

South Coast Air Quality Management District (SCAQMD), 2006. *Final Methodology to Calculate $PM_{2.5}$ and $PM_{2.5}$ Significance Thresholds, Appendix A – Updated CEIDARS Table with $PM_{2.5}$ Fractions*, October 2006.

SCAQMD, 2008a. *Table XI-D: Mitigation Measure Examples: Fugitive Dust Emissions from Unpaved Roads*, Accessed online (http://www.aqmd.gov/CEQA/handbook/mitigation/fugitive/TableXI-D.doc) July 14, 2008.

SCAQMD, 2008b. *Table XI-C: Mitigation Measure Examples: Fugitive Dust Emissions from Paved Roads*, Accessed online (http://www.aqmd.gov/CEQA/handbook/mitigation/fugitive/TableXI-C.doc) July 14, 2008.

Table C-1. Localized Significance Thresholds Analysis

(Replaces Table F-1 of PEA Appendix F1)

Localized Significance Threshold (lb/day)				
Distance to Receptor	**NO_x [a]**	**CO**	**PM_{10}**	**$PM_{2.5}$**
25	117	845	4	3
50	120	1,328	13	6
100	210	2,422	35	10
250	332	5,687	80	24
500	647	23,061	214	105

[a] Thresholds for NOx have been adjusted based on revised 1 hour state ambient air quality standard of 0.18 ppm.

Construction Emissions (lb/day) [1]					
	Distance to Receptor	**Maximum Daily Onsite Emissions [2]**			
Phase	**(m)**	**CO**	**NOx**	**PM10**	**PM2.5**
Transmission Line	25	69.1	**143.3**	**14.8**	**6.9**
Subtransmission Line	25	78.5	**230.9**	**17.6**	**9.4**
Devers Substation Construction	250	21.5	44.8	2.6	2.2
Mirage Substation Construction	50	52.0	119.6	**21.6**	**8.8**
Concho Substation Construction	20	2.1	4.1	0.2	0.2
Indian Wells Substation Construction	35	2.1	4.1	0.2	0.2
Santa Rosa Construction	40	2.1	4.1	0.2	0.2
Eisenhower Substation Construction	50	23.7	51.3	3.0	2.5
Farrell Substation Construction	24	23.7	51.3	3.5	2.6
Garnet Substation Construction	25	2.1	4.1	0.2	0.2
Thornhill Substation Construction	10	2.1	4.1	0.2	0.2
Tamarisk Substation Construction	10	17.9	34.1	2.7	0.2
Telecommunications	30	20.4	62.3	3.0	2.7

[1] Values above the LSTs are shown in **BOLD.**

[2] Values include onsite emissions only (worker trips and fugitive dust from paved and unpaved roads were not included).

Table C-2. Maximum Daily Combined Emissions Summary

(Replaces Table F-2 of PEA Appendix F1)

Quarter	Construction Phases Occurring Simultaneously	Combined Maximum Daily Emissions (lbs/day)					
		CO	NOx	ROG	SOx	PM10	PM2.5
2nd Quarter, 2010	Subtransmission Line (Mirage-Santa Rosa)	103.3	233.5	22.6	0.3	246.2	57.4
3rd Quarter, 2010	Mirage Substation Construction, Devers Substation Construction, Eisenhower Substation Construction	115.6	217.6	26.6	0.2	52.4	18.9
3rd Quarter, 2010	Mirage Substation Construction, Devers Substation Construction, Eisenhower Substation Construction, Subtransmission Line (Mirage-Santa Rosa-Tamarisk)	218.9	451.1	49.2	0.5	298.6	76.2
3rd Quarter, 2010	Mirage Substation Construction, Concho Substation Construction, Eisenhower Substation Construction, Subtransmission Line (Mirage-Santa Rosa-Tamarisk)	197.4	410.2	44.1	0.5	283.6	71.6
4th Quarter, 2010	Mirage Substation Construction, Concho Substation Construction, Farrell Substation Construction, Subtransmission Line (Mirage-Santa Rosa-Tamarisk)	197.4	410.2	44.1	0.5	284.0	71.7
1st Quarter, 2011	Mirage Substation Construction, Indian Wells Substation Construction, Farrell Substation Construction, Subtransmission Line (Mirage-Devers-Capwind-Tamarisk)	197.4	410.2	44.1	0.5	284.0	71.7
1st Quarter, 2011	Mirage Substation Construction, Indian Wells Substation Construction, Thornhill Substation Construction, Subtransmission Line (Mirage-Devers-Capwind-Tamarisk)	173.8	362.8	38.3	0.4	272.4	67.5
1st Quarter, 2011	Mirage Substation Construction, Indian Wells Substation Construction, Thornhill Substation Construction, Subtransmission Line (Mirage-Devers-Capwind-Tamarisk)	173.8	362.8	38.3	0.4	272.4	67.5
1st Quarter, 2011	Mirage Substation Construction, Santa Rosa Substation Construction, Thornhill Substation Construction, Subtransmission Line (Mirage-Devers-Capwind-Tamarisk)	173.8	362.8	38.3	0.4	272.4	67.5
1st Quarter, 2011	Mirage Substation Construction, Santa Rosa Substation Construction, Thornhill Substation Construction, Subtransmission Line (Mirage-Concho)	173.8	362.8	38.3	0.4	272.4	67.5
2nd Quarter, 2011	Mirage Substation Construction, Santa Rosa Substation Construction, Tamarisk Substation Construction, Subtransmission Line (Mirage-Concho)	190.6	392.9	42.2	0.4	269.9	68.1
2nd Quarter, 2011	Mirage Substation Construction, Garnet Substation Construction, Tamarisk Substation Construction, Subtransmission Line (Mirage-Concho)	190.6	392.9	42.2	0.4	274.1	69.0
2nd Quarter, 2011	Mirage Substation Construction, Garnet Substation Construction, Tamarisk Substation Construction, Transmission Line (Devers-Mirage #2)	162.8	303.4	33.7	1.7	172.9	45.6
2nd Quarter, 2011	Transmission Line (Devers-Mirage #2, Coachella Valley-Mirage)	75.5	144.0	14.0	1.5	144.9	34.0

Table C-3. Maximum Daily Emissions Per Construction Phase

(Replaces Table F-3 of PEA Appendix F1)

Phase	Emissions (lbs/day)					
	CO	NOx	ROG	SOx	PM10	PM2.5
Transmission Line Loop-In						
Fugitive Dust	0.00	0.00	0.00	0.00	137.85	27.53
On-site vehicle Exhaust	69.14	143.32	13.40	1.54	7.04	6.48
Employee Vehicles	6.33	0.66	0.65	0.01	0.05	0.03
Total	*75.47*	*143.99*	*14.04*	*1.55*	*144.94*	*34.03*
Subtransmission Line						
Fugitive Dust	0.00	0.00	0.00	0.00	236.14	48.20
On-site vehicle Exhaust	78.53	230.94	20.06	0.24	9.84	9.05
Employee Vehicles	24.79	2.59	2.54	0.03	0.20	0.12
Total	*103.32*	*233.53*	*22.59*	*0.27*	*246.18*	*57.37*
Devers Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	12.85	2.73
On-site vehicle Exhaust	21.48	44.77	5.21	0.05	2.26	2.08
Employee Vehicles	3.16	0.33	0.32	0.00	0.03	0.02
Total	*24.64*	*45.10*	*5.54*	*0.05*	*15.14*	*4.83*
Mirage Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	15.52	3.23
On-site vehicle Exhaust	51.96	119.57	13.43	0.12	6.05	5.57
Employee Vehicles	12.13	1.27	1.24	0.01	0.10	0.06
Total	*64.10*	*120.84*	*14.67*	*0.13*	*21.67*	*8.85*
Concho Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
Total	*3.19*	*4.21*	*0.50*	*0.01*	*0.19*	*0.18*
Indian Wells Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
Total	*3.19*	*4.21*	*0.50*	*0.01*	*0.19*	*0.18*
Santa Rosa Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
Total	*3.19*	*4.21*	*0.50*	*0.01*	*0.19*	*0.18*
Eisenhower Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	12.90	2.74
On-site vehicle Exhaust	23.66	51.30	6.05	0.05	2.64	2.43
Employee Vehicles	3.16	0.33	0.32	0.00	0.03	0.02
Total	*26.82*	*51.63*	*6.38*	*0.06*	*15.57*	*5.19*
Farrell Substation Construction						
Fugitive Dust	0.00	0.00	0.00	0.00	13.32	2.82
On-site vehicle Exhaust	23.66	51.30	6.05	0.05	2.64	2.43
Employee Vehicles	3.16	0.33	0.32	0.00	0.03	0.02
Total	*26.82*	*51.63*	*6.38*	*0.06*	*15.99*	*5.27*

Phase		Emissions (lbs/day)					
		CO	NOx	ROG	SOx	PM10	PM2.5
Garnet Substation Construction							
	Fugitive Dust	0.00	0.00	0.00	0.00	4.19	0.90
	On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
	Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
	Total	*3.19*	*4.21*	*0.50*	*0.01*	*4.38*	*1.08*
Thornhill Substation Construction							
	Fugitive Dust	0.00	0.00	0.00	0.00	4.19	0.90
	On-site vehicle Exhaust	2.13	4.10	0.39	0.00	0.18	0.17
	Employee Vehicles	1.05	0.11	0.11	0.00	0.01	0.01
	Total	*3.19*	*4.21*	*0.50*	*0.01*	*4.38*	*1.08*
Tamarisk Substation Construction							
	Fugitive Dust	0.00	0.00	0.00	0.00	0.06	0.01
	On-site vehicle Exhaust	17.88	34.10	4.24	0.04	1.79	1.65
	Employee Vehicles	2.11	0.22	0.22	0.00	0.02	0.01
	Total	*19.99*	*34.32*	*4.46*	*0.04*	*1.87*	*1.67*
Telecommunications Line							
	Fugitive Dust	0.00	0.00	0.00	0.00	51.61	10.80
	On-site vehicle Exhaust	20.37	62.28	5.65	0.06	2.98	2.74
	Employee Vehicles	2.11	0.22	0.22	0.00	0.02	0.01
	Total	*22.48*	*62.50*	*5.86*	*0.06*	*54.61*	*13.55*

Table C-4. Fugitive Dust Summary for Transmission Line, Subtranmission Line, and Telecommunications Construction

(Replaces Table F-4 of PEA Appendix F-1)

Construction Element	Maximum Fugitive Dust Emissions (lb/day)	
	PM10	PM2.5
Road Construction		
Grading	20.23	10.46
Transmission Line Loop-In		
Unpaved Road Dust	119.66	25.38
Paved Road Dust	10.39	1.76
Dig Foundation Dust	7.80	0.39
Total	137.85	27.53
Subtransmission Line		
Unpaved Road Dust	216.50	45.81
Paved Road Dust	11.84	2.00
Dig Foundation Dust	7.80	0.39
Total	236.14	48.20
Telecommunications		
Unpaved Road Dust	48.69	10.31
Paved Road Dust	2.92	0.49
Total	51.61	10.80

Table C-5. Substation Construction - Fugitive Dust Emission

(Replaces Table F-5 of PEA Appendix F-1)

Using Graders

E =	80 lbs of Total Suspended Particulate Matter/acre-day [a]
PM10 Fraction =	0.489 [b]
Control Efficiency =	60%

[a] Emission Factor from AP-42 Section 13.2.3

[b] Source: SCAQMD, *Final Methodology to Calculate PM2.5 and PM2.5 Significance Thresholds, Appendix A - Updated CEIDARS Table with PM2.5 Fractions* , October 2006.

Substation	Total Acres Disturbed	Maximum Controlled Fugitive Dust Emissions		Unpaved Road Travel Fugitive Dust[4]		Total Controlled Fugitive Dust	
		PM10 (lb/day)[1,2]	PM2.5 (lb/day)[3]	PM10 (lb/day)	PM2.5 (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
Devers	0.022	0.34	0.07	12.51	2.66	12.85	2.73
Mirage	0.992	15.52	3.23	0.00	0.00	15.52	3.23
Concho	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Indian Wells	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Santa Rosa	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Eisenhower	0.025	0.39	0.08	12.51	2.66	12.90	2.74
Farrell	0.052	0.81	0.17	12.51	2.66	13.32	2.82
Garnet	0.000	0.00	0.00	4.19	0.90	4.19	0.90
Thornhill	0.000	0.00	0.00	4.19	0.90	4.19	0.90
Tamarisk	0.004	0.06	0.01	0.00	0.00	0.06	0.01

[1] The maximum fugitive emissions are assumed to occur during site grading activities.

[2] Site grading activities for each site were assumed to be completed in one day.

[3] PM2.5 fraction of PM10 was assumed to be 0.208 per SCAQMD's *Final Methodology to Calculate PM2.5 and PM2.5 Significance Thresholds, Appendix A - Updated CEIDARS Table with PM2.5 Fractions.*

[4] Based on adjusted numbers from PEA Appendix F-1: Air Quality Calculations, Table F-9, Unpaved Road Travel During Construction - Fugitive Dust Emissions.

Table C-6. Fugitive Dust from Travel on Unpaved Roads

(adjusts controlled emission rates from Table F-9 of PEA Appendix F-1)

	Uncontrolled Emissions[1]				Controlled Emissions (55%)			
	PM10		PM2.5		PM10		PM2.5	
Activity	**(lbs/day)**	**(lbs/activity)**	**(lbs/day)**	**(lbs/activity)**	**(lbs/day)**	**(lbs/activity)**	**(lbs/day)**	**(lbs/activity)**
Subtransmission Line								
Survey								
Worker Traffic	13.90	41.70	2.90	8.80	6.26	18.77	1.31	3.96
1/2-Ton Pick-up	11.60	34.90	2.50	7.40	5.22	15.71	1.13	3.33
					11.48	34.47	2.43	7.29
Roads								
Worker Traffic	18.50	185.40	3.90	39.30	8.33	83.43	1.76	17.69
1-Ton Crew Cab (4X4)	23.30	232.80	4.90	49.40	10.49	104.76	2.21	22.23
Road Grader	27.40	274.20	5.80	58.10	12.33	123.39	2.61	26.15
Track Type Dozer	54.80	548.50	11.60	116.30	24.66	246.83	5.22	52.34
Water Truck	27.40	274.20	5.80	58.10	12.33	123.39	2.61	26.15
					68.13	681.80	14.40	144.54
Pole Framing and Setting								
Worker Traffic	74.20	10904.30	15.70	2311.70	33.39	4906.94	7.07	1040.27
¾-Ton Suburban	23.30	3421.90	4.90	725.50	10.49	1539.86	2.21	326.48
5-Ton Framing Truck 4X4	54.80	4552.40	11.60	965.10	24.66	2048.58	5.22	434.30
30-Ton Line Truck	54.80	4552.40	11.60	965.10	24.66	2048.58	5.22	434.30
Digger Truck	27.40	658.20	5.80	139.50	12.33	296.19	2.61	62.78
Water Truck	27.40	2276.20	5.80	482.60	12.33	1024.29	2.61	217.17
Backhoe	54.80	8062.70	11.60	1709.30	24.66	3628.22	5.22	769.19
Bucket Truck	54.80	8062.70	11.60	1709.30	24.66	3628.22	5.22	769.19
Truck-Mounted Crane	54.80	8062.70	11.60	1709.30	24.66	3628.22	5.22	769.19
30-Ton Crane	27.40	383.90	5.80	81.40	12.33	172.76	2.61	36.63
Cement Truck	27.40	82.30	5.80	17.40	12.33	37.04	2.61	7.83
					216.50	22958.87	45.81	4867.29
Material Delivery								
Worker Traffic	13.90	69.50	2.90	14.70	6.26	31.28	1.31	6.62
60-Foot Flat-Bed Pole Truck	54.80	274.20	11.60	58.10	24.66	123.39	5.22	26.15
Forklift	27.40	137.10	5.80	29.10	12.33	61.70	2.61	13.10
					43.25	216.36	9.14	45.86

Activity	Uncontrolled Emissions[1]				Controlled Emissions (55%)			
	PM10		PM2.5		PM10		PM2.5	
	(lbs/day)	(lbs/activity)	(lbs/day)	(lbs/activity)	(lbs/day)	(lbs/activity)	(lbs/day)	(lbs/activity)
Conductor Installation								
Worker Traffic	74.20	1780.30	15.70	377.40	33.39	801.14	7.07	169.83
Flat-Bed Truck & Trailer (Wire Puller)	27.40	658.20	5.80	139.50	12.33	296.19	2.61	62.78
Flat-Bed Truck & Trailer (Wire Dolly)	27.40	658.20	5.80	139.50	12.33	296.19	2.61	62.78
30-Ton Line Truck	54.80	1316.40	11.60	279.10	24.66	592.38	5.22	125.60
¾-Ton Suburban	23.30	325.90	4.90	69.10	10.49	146.66	2.21	31.10
Water Truck	27.40	658.20	5.80	139.50	12.33	296.19	2.61	62.78
Bucket Truck	54.80	1316.40	11.60	279.10	24.66	592.38	5.22	125.60
Truck-Mounted Crane	54.80	1316.40	11.60	279.10	24.66	592.38	5.22	125.60
					154.85	3613.50	32.76	766.04
Restoration								
Worker Traffic	37.10	1483.60	7.90	314.50	16.70	667.62	3.56	141.53
1-Ton Crew Cab 4X4	23.30	931.10	4.90	197.40	10.49	419.00	2.21	88.83
Water Truck	27.40	1097.00	5.80	232.60	12.33	493.65	2.61	104.67
					39.51	1580.27	8.37	335.03
Max Subtransmission Line					***216.50***	***22958.87***	***45.81***	***4867.29***
Telecommunications								
Worker Traffic	18.50	2077.00	3.90	440.30	8.33	934.65	1.76	198.14
Crew Truck (gasoline)	23.30	2653.70	4.90	562.60	10.49	1194.17	2.21	253.17
Crew Truck (gasoline)	11.60	989.30	2.50	209.70	5.22	445.19	1.13	94.37
Bucket Truck	54.80	1371.20	11.60	290.70	24.66	617.04	5.22	130.82
Max Telecommunications					***48.69***	***3191.04***	***10.31***	***676.49***
Transmission Line Loop-In								
Survey								
½-Ton Pick-Up	23.30	69.80	4.90	14.80	10.49	31.41	2.21	6.66
					10.49	31.41	2.21	6.66
Marshalling Yards								
1-Ton Crew Cab	11.60	989.30	2.50	209.70	5.22	445.19	1.13	94.37
Truck, Semi-Tractor	27.40	2331.10	5.80	494.20	12.33	1049.00	2.61	222.39
					17.55	1494.18	3.74	316.76
Roads and Landing Work								
1-Ton Crew Cab	11.60	34.90	2.50	7.40	5.22	15.71	1.13	3.33
Water Truck	82.30	246.80	17.40	52.30	37.04	111.06	7.83	23.54
Lowboy Truck & Trailer	27.40	82.30	5.80	17.40	12.33	37.04	2.61	7.83
					54.59	163.80	11.57	34.70

Activity	Uncontrolled Emissions[1]				Controlled Emissions (55%)			
	PM10		PM2.5		PM10		PM2.5	
	(lbs/day)	(lbs/activity)	(lbs/day)	(lbs/activity)	(lbs/day)	(lbs/activity)	(lbs/day)	(lbs/activity)
Install Foundations								
1-Ton Crew Cab	46.60	791.50	9.90	167.80	20.97	356.18	4.46	75.51
4,000 Gallon Water Truck	54.80	932.40	11.60	197.70	24.66	419.58	5.22	88.97
Concrete Mixer Truck	164.50	2797.30	34.90	593.00	74.03	1258.79	15.71	266.85
					119.66	2034.54	25.38	431.33
Tower Legs, Haul and Erection								
1-Ton Crew Cab	11.60	46.60	2.50	9.90	5.22	20.97	1.13	4.46
30-Ton Crane Truck	27.40	109.70	5.80	23.30	12.33	49.37	2.61	10.49
Truck & Trailer	27.40	109.70	5.80	23.30	12.33	49.37	2.61	10.49
Truck & Trailer	54.80	274.20	11.60	58.10	24.66	123.39	5.22	26.15
					54.54	243.09	11.57	51.57
Tower Assembly								
Crane Truck	54.80	438.80	11.60	93.00	24.66	197.46	5.22	41.85
Pick-Up Truck	34.90	279.30	7.40	59.20	15.71	125.69	3.33	26.64
Crew Cab Flat-Bed	46.60	372.50	9.90	79.00	20.97	167.63	4.46	35.55
Compressor Truck	23.30	186.20	4.90	39.50	10.49	83.79	2.21	17.78
					71.82	574.56	15.21	121.82
Tower and TSP Erection								
Pick-Up Truck	11.60	93.10	2.50	19.70	5.22	41.90	1.13	8.87
Crew Cab Flat-Bed	23.30	186.20	4.90	39.50	10.49	83.79	2.21	17.78
Compressor Truck	11.60	93.10	2.50	19.70	5.22	41.90	1.13	8.87
					20.93	167.58	4.46	35.51
Tower Removal								
Pick-Up Truck	11.60	46.60	2.50	9.90	5.22	20.97	1.13	4.46
Flat-Bed Truck	11.60	46.60	2.50	9.90	5.22	20.97	1.13	4.46
					10.44	41.94	2.25	8.91
Conductor Installation								
Crew Cab Flat-Bed	34.90	349.20	7.40	74.00	15.71	157.14	3.33	33.30
Wire Truck & Trailer	54.80	329.10	11.60	69.80	24.66	148.10	5.22	31.41
Dump Truck (Trash)	27.40	274.20	5.80	58.10	12.33	123.39	2.61	26.15
Pick-Up Truck	11.60	116.40	2.50	24.70	5.22	52.38	1.13	11.12
Log Truck & Trailer	27.40	274.20	5.80	58.10	12.33	123.39	2.61	26.15
Static Truck	27.40	164.50	5.80	34.90	12.33	74.03	2.61	15.71
Lowboy Truck & Trailer	27.40	274.20	5.80	58.10	12.33	123.39	2.61	26.15
					94.91	801.81	20.12	169.97

Activity	Uncontrolled Emissions[1]				Controlled Emissions (55%)			
	PM10		PM2.5		PM10		PM2.5	
	(lbs/day)	(lbs/activity)	(lbs/day)	(lbs/activity)	(lbs/day)	(lbs/activity)	(lbs/day)	(lbs/activity)
Restoration								
Crew Cab	11.60	46.60	2.50	9.90	5.22	20.97	1.13	4.46
Water Truck	82.30	329.10	17.40	69.80	37.04	148.10	7.83	31.41
Lowboy Truck & Trailer	27.40	109.70	5.80	23.30	12.33	49.37	2.61	10.49
					54.59	218.43	11.57	46.35
Max Transmission Line Loop-In					***119.66***	***2034.54***	***25.38***	***431.33***
Substations								
Devers Substation								
Worker Traffic	27.80	2030.60	5.90	430.50	12.51	913.77	2.66	193.73
Eisenhower Substation								
Worker Traffic	27.80	2030.60	5.90	430.50	12.51	913.77	2.66	193.73
Farrell Substation								
Worker Traffic	27.80	2698.30	5.90	572.00	12.51	1214.24	2.66	257.40
Garnet Substation								
Worker Traffic	9.30	296.70	2.00	62.90	4.19	133.52	0.90	28.31
Thornhill Substation								
Worker Traffic	9.30	741.80	2.00	157.30	4.19	333.81	0.90	70.79
Max Substation					***12.51***	***913.77***	***2.66***	***193.73***

[1] Rates are from PEA Appendix F-1, Table F-9 Unpaved Road Travel During Construction.

Table C-7. Heavy Duty Vehicle Fugitive Dust Emission Factor For Travel on Paved Roads

(Replaces Emission Factor for Fugitive Dust emissions from Heavy Duty Vehicle Travel on Paved Roads)

Heavy Vehicles on Paved Road Fugitive Dust

Use SCAQMD CEQA Table A9-9-C
E = VxF (PM10 without street cleaning)
V = vehicles mile traveled
F = 0.77* ((G*0.35)^0.3) lbs/VMT

Assume following reductions per SCAQMD Table XI-C, Mitigation Measure Examples - Fugitive Dust From Paved Roads:

16% control of fugitive dust for street sweeping on local streets
26% control of fugitive dust for street sweeping on arterial/collector streets

	G	F	Control Efficiency	F (controlled)
Local Streets	0.04	0.2140	0.16	0.1797
Collector	0.03	0.1963	0.26	0.1452
Major Streets/Highways	0.012	0.1491	0.26	0.1103
Freeways	0.00065	0.0622	NA	0.0622

Assumed Mix of Roads

0.1	Local streets
0.1	Collector Streets
0.1	Major Streets/Highways
0.7	Freeways

Composite Heavy Vehicle Factor

0.0870	**PM10 per VMT**
0.169	PM2.5 fraction of PM10 from SCAQMD Table A - Updated CEIDARS Table with PM2.5 Fractions
0.01471	**PM2.5 per VMT**

Table C-8. Fugitive Dust from Travel on Paved Roads

(adjusts controlled emission rates from Table F-10 of PEA Appendix F-1)

Activity	Number	Days	Hours/Day	VMT/day	F PM10 (lbs/VMT)	F PM2.5 (lbs/VMT)	PM10 (lbs/day)	PM10 lbs activity	PM2.5 (lbs/day)	PM2.5 lbs activity
Subtransmission Line										
Survey										
½-Ton Pick-Up	1	3	10	9.54	0.0116	0.00196	0.1	0.3	0.0	0.1
							0.1	0.3	0.0	0.1
Roads										
1-Ton Crew Cab 4X4	2	10	2	9.54	0.0116	0.00196	0.2	2.2	0.0	0.4
Road Grader	1	10	10	9.54	0.087	0.01471	0.8	8.3	0.1	1.4
Track-Type Dozer	2	10	2.5	9.54	0.087	0.01471	1.7	16.6	0.3	2.8
Water Truck	1	10	10	9.54	0.087	0.01471	0.8	8.3	0.1	1.4
							3.5	35.4	0.6	6.0
Pole Framing and Setting										
¾-Ton Suburban	2	147	10	9.54	0.0116	0.00196	0.2	32.5	0.0	5.5
5-Ton Framing Truck 4X4	2	83	10	9.54	0.087	0.01471	1.7	137.8	0.3	23.3
30-Ton Line Truck	2	83	10	9.54	0.087	0.01471	1.7	137.8	0.3	23.3
Digger Truck	1	24	10	9.54	0.087	0.01471	0.8	19.9	0.1	3.4
Water Truck	1	83	10	9.54	0.087	0.01471	0.8	68.9	0.1	11.6
Backhoe	2	147	10	9.54	0.087	0.01471	1.7	244.0	0.3	41.3
Bucket Truck	2	147	10	9.54	0.087	0.01471	1.7	244.0	0.3	41.3
Truck-Mounted Crane	2	147	10	9.54	0.087	0.01471	1.7	244.0	0.3	41.3
30-Ton Crane	1	14	10	9.54	0.087	0.01471	0.8	11.6	0.1	2.0
Cement Truck	1	3	10	9.54	0.087	0.01471	0.8	2.5	0.1	0.4
							11.8	1143.0	2.0	193.3
Material Delivery										
60-Foot Flat-Bed Pole Truck	2	5	8	9.54	0.087	0.01471	1.7	8.3	0.3	1.4
Forklift	1	5	8	9.54	0.087	0.01471	0.8	4.1	0.1	0.7
							2.5	12.4	0.4	2.1
Conductor Installation										
Flat-Bed Truck & Trailer (Wire Puller)	1	24	6	9.54	0.087	0.01471	0.8	19.9	0.1	3.4
Flat-Bed Truck & Trailer (Wire Dolly)	1	24	6	9.54	0.087	0.01471	0.8	19.9	0.1	3.4
30-Ton Line Truck	2	24	5	9.54	0.087	0.01471	1.7	39.8	0.3	6.7
¾-Ton Suburban	2	14	10	9.54	0.0116	0.00196	0.2	3.1	0.0	0.5
Water Truck	1	24	10	9.54	0.087	0.01471	0.8	19.9	0.1	3.4
Bucket Truck	2	24	6	9.54	0.087	0.01471	1.7	39.8	0.3	6.7
Truck-Mounted Crane	2	24	6	9.54	0.087	0.01471	1.7	39.8	0.3	6.7
							7.7	182.4	1.3	30.8

Activity	Number	Days	Hours/Day	VMT/day	F PM10 (lbs/VMT)	F PM2.5 (lbs/VMT)	PM10 (lbs/day)	PM10 lbs activity	PM2.5 (lbs/day)	PM2.5 lbs activity
Restoration										
1-Ton Crew Cab 4X4	2	40	8	9.54	0.0116	0.00196	0.2	8.9	0.0	1.5
Water Truck	1	40	8	9.54	0.087	0.01471	0.8	33.2	0.1	5.6
							1.1	42.1	0.2	7.1
Max Subtransmission Line							***11.84***	***1143.05***	***2.00***	***193.26***
Telecommunications										
Crew Truck (gasoline)	2	114	8	14	0.0116	0.00196	0.3	37.0	0.1	6.3
Crew Truck (gasoline)	1	85	8	14	0.0116	0.00196	0.2	13.8	0.0	2.3
Bucket Truck	2	25	8	14	0.087	0.01471	2.4	60.9	0.4	10.3
							2.9	***111.7***	***0.5***	***18.9***
Transmission Line Loop-In										
Survey										
½-Ton Pick-Up	2	3	8	14	0.0116	0.01471	0.3	1.0	0.4	1.2
							0.3	1.0	0.4	1.2
Marshalling Yards										
1-Ton Crew Cab	1	85	2	14	0.0116	0.00196	0.2	13.8	0.0	2.3
Truck, Semi-Tractor	1	85	1	14	0.087	0.01471	1.2	103.5	0.2	17.5
							1.4	117.3	0.2	19.8
Roads and Landing Work										
1-Ton Crew Cab	1	3	5	14	0.0116	0.00196	0.2	0.5	0.0	0.1
Water Truck	3	3	10	14	0.087	0.01471	3.7	11.0	0.6	1.9
Lowboy Truck & Trailer	1	3	4	14	0.087	0.01471	1.2	3.7	0.2	0.6
							5.0	15.1	0.9	2.6
Install Foundations										
1-Ton Crew Cab	4	17	6	14	0.0116	0.00196	0.6	11.0	0.1	1.9
4,000 Gallon Water Truck	2	17	5	14	0.087	0.01471	2.4	41.4	0.4	7.0
Concrete Mixer Truck	6	17	5	14	0.087	0.01471	7.3	124.2	1.2	21.0
							10.4	176.7	1.8	29.9
Tower Legs, Haul and Erection										
1-Ton Crew Cab	1	4	6	14	0.0116	0.00196	0.2	0.6	0.0	0.1
30-Ton Crane Truck	1	4	8	14	0.087	0.01471	1.2	4.9	0.2	0.8
Truck & Trailer	1	4	5	14	0.087	0.01471	1.2	4.9	0.2	0.8
Truck & Trailer	2	5	10	14	0.087	0.01471	2.4	12.2	0.4	2.1
							5.0	22.6	0.9	3.8

Activity	Number	Days	Hours/Day	VMT/day	F PM10 (lbs/VMT)	F PM2.5 (lbs/VMT)	PM10 (lbs/day)	PM10 lbs activity	PM2.5 (lbs/day)	PM2.5 lbs activity
Tower Assembly										
Crane Truck	2	8	8	14	0.087	0.01471	2.4	19.5	0.4	3.3
Pick-Up Truck	3	8	10	14	0.0116	0.00196	0.5	3.9	0.1	0.7
Crew Cab Flat-Bed	4	8	5	14	0.0116	0.00196	0.6	5.2	0.1	0.9
Compressor Truck	2	8	5	14	0.0116	0.00196	0.3	2.6	0.1	0.4
							3.9	31.2	0.7	5.3
Tower and TSP Erection										
Pick-Up Truck	1	8	5	14	0.0116	0.00196	0.2	1.3	0.0	0.2
Crew Cab Flat-Bed	2	8	5	14	0.0116	0.00196	0.3	2.6	0.1	0.4
Compressor Truck	1	8	5	14	0.0116	0.00196	0.2	1.3	0.0	0.2
							0.6	5.2	0.1	0.9
Tower Removal										
Pick-Up Truck	1	4	8	14	0.0116	0.00196	0.2	0.6	0.0	0.1
Flat-Bed Truck	1	4	8	14	0.0116	0.00196	0.2	0.6	0.0	0.1
							0.3	1.3	0.1	0.2
Conductor Installation										
Crew Cab Flat-Bed	3	10	8	14	0.0116	0.00196	0.5	4.9	0.1	0.8
Wire Truck & Trailer	2	6	2	14	0.087	0.01471	2.4	14.6	0.4	2.5
Dump Truck (Trash)	1	10	2	14	0.087	0.01471	1.2	12.2	0.2	2.1
Pick-Up Truck	1	10	10	14	0.0116	0.00196	0.2	1.6	0.0	0.3
Log Truck & Trailer	1	10	2	14	0.087	0.01471	1.2	12.2	0.2	2.1
Static Truck	1	6	2	14	0.087	0.01471	1.2	7.3	0.2	1.2
Lowboy Truck & Trailer	1	10	2	14	0.087	0.01471	1.2	12.2	0.2	2.1
							8.0	65.0	1.3	11.0
Restoration										
Crew Cab	1	4	5	14	0.0116	0.00196	0.2	0.6	0.0	0.1
Water Truck	3	4	10	14	0.087	0.01471	3.7	14.6	0.6	2.5
Lowboy Truck & Trailer	1	4	4	14	0.087	0.01471	1.2	4.9	0.2	0.8
							5.0	20.1	0.9	3.4
Max Transmission Line Loop-In							***10.39***	***176.69***	***1.76***	***29.87***

Table F-6. Employee Vehicle - Exhaust Emissions

Employee Vehicle Emissions

Emission Factors
from SCAQMD Highest (Most Conservative) EMFAC 2007 Emission Factors for On-Road Passenger Vehicles and Delivery Trucks

E = F* VMT
F = Emission factor per passenger vehicle (lb/VMT)
VMT = Vehicle Miles Traveled
VMT per employee = 50 miles (Assumed)
E = Emissions lb/day

Emission Factors for 2008 (lb/VMT)

CO =	0.01055
NOx =	0.00110
ROG =	0.00108
SOx =	0.00001
PM10 =	0.00009
PM2.5 =	0.00005

Emission Summary

Construction Phase	Employees per day*	CO (lbs/day)	NOx (lbs/day)	ROG (lbs/day)	SOx (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)
Transmission Line Loop-In	12	6.33	0.66	0.65	0.01	0.05	0.03
Subtransmission Lines	47	24.79	2.59	2.54	0.03	0.20	0.12
Devers Substation	6	3.16	0.33	0.32	0.00	0.03	0.02
Mirage Substation	23	12.13	1.27	1.24	0.01	0.10	0.06
Concho Substation	2	1.05	0.11	0.11	0.00	0.01	0.01
Indian Wells Substation	2	1.05	0.11	0.11	0.00	0.01	0.01
Santa Rosa Substation	2	1.05	0.11	0.11	0.00	0.01	0.01
Eisenhower Substation	6	3.16	0.33	0.32	0.00	0.03	0.02
Farrell Substation	6	3.16	0.33	0.32	0.00	0.03	0.02
Garnet Substation	2	1.05	0.11	0.11	0.00	0.01	0.01
Thornhill Substation	2	1.05	0.11	0.11	0.00	0.01	0.01
Tamarisk Substation	4	2.11	0.22	0.22	0.00	0.02	0.01
Telecommunication	4	2.11	0.22	0.22	0.00	0.02	0.01

* This is the maximum number of employees per day expected for this phase of the project

Table F-7. Road Grading - Fugitive Dust Emissions

On-site fugitive dust sources during grading of road

Using Graders
Emission Factors
from AP42 Table 11.9-1

E=k*0.051*(S^2) for PM10

E=k*0.040*(S^2.5) for PM2.5
k=.6 PM10
k=.031 PM2.5
S=mean speed
E=lbs/VMT

E(PM10)	0.2754	lbs/VMT
E(PM2.5)	0.0193	lbs/VMT
Assume	3	mph grader speed
E(PM10)	0.826	lbs/hr
E(PM2.5)	0.058	lbs/hr
Assume	5	hours per day grading
E(PM10)	4.13	lbs/day/grader
E(PM2.5)	0.29	lbs/day/grader
Assume	1	Grader
E(PM10)	4.1	lbs/day
E(PM2.5)	0.3	lbs/day
Assume	10	days of grading
E(PM10)	41	lbs total activity
E(PM2.5)	3	lbs total activity

Crawler Operation
Used dozer equation in
AP 42 Tables 11.9-1 and 11.9-2

E(PM10)= k*(s^1.5)/(M^1.4)
E(PM2.5)= k*5.7*(^1.2)/(M^1.3)

k= .75 for PM10
k=0.105 for PM2.5
s=silt content %
M= moisture content %

Assume

s=	8.5	%
M=	8	%
E(PM10)=	1.011	lb/hr
E(PM2.5)=	0.523	lb/hr

Assume

	10	hrs/day
	2	dozers
E(PM10)	20.2	lbs/day
E(PM2.5)	10.5	lbs/day

Assume

	10	days compacting
E(PM10)	202	lbs total activity
E(PM2.5)	105	lbs total activity

Uncontrolled Fugitive Dust Emission Summary

PM10 (lbs/day)	PM10 Total Activity (lbs)	PM2.5 (lbs/day)	PM2.5 Total Activity (lbs)	Activity
4	41	0	3	Using Graders
20	202	10	105	Using Crawlers
24	244	11	107	Total Uncontrolled

Assume 60% control factor for using watering trucks

PM10 (lbs/day)	PM10 Total Activity (lbs)	PM2.5 (lbs/day)	PM2.5 Total Activity (lbs)	Activity
10	97	4	43	**Total Controlled**

Table F-8. Dig Foundation - Fugitive Dust Emissions

On-site fugitive dust sources during digging foundations

Digger Truck Operation
Used AP42 11.9-4

E(TSP)= 1.3 lb/hole

Assume

10	holes per day	
0.6	factor for PM10 (like grader)	
0.03	factor for PM2.5 (like grader)	
E(PM10)	7.8	lbs/day
E(PM2.5)	0.4	lbs/day

Assume

24	days drilling	
E(PM10)	187	lbs total activity
E(PM2.5)	9	lbs total activity

Table F-11. Subtransmission Line Construction - Route Details

Route	Distance (Miles)	
	Paved	Unpaved
Farrell-Garnet (Alternative Route 1) Starting from Devers Substation	6.00	2.33
Farrell-Garnet (Alternative Route 2) Starting from Devers Substation	4.60	4.77
Farrell-Garnet (Alternative Route 3) Starting from Devers Substation	7.00	2.33
Devers Coachella Valley Loop-In Starting from Mirage Substation	0.00	0.95
Mirage-Santa Rosa (Alternative Route 1) Starting from Mirage Substation	0.00	1.42
Mirage-Santa Rosa (Alternative Route 2) Starting from Mirage Substation	2.93	0.00
Bob Hope Dr. & Dinah Shore Dr. Substation Line Reconfiguration (Alternative Route 1) Starting from Mirage Substation	2.67	1.42
Bob Hope & Dinah Shore Dr. Substation Line Reconfiguration (Alternative Route 2) Starting from Mirage Substation	2.77	0.00
Gerald Ford Dr. & Portola Ave. Substation Line Reconfiguration (Alternative Route 1) Starting from Mirage Substation	0.00	2.02
Gerald Ford Dr. & Portola Ave. Substation Line Reconfiguration (Alternative Route 2) Starting from Mirage Substation	2.97	0.57

Notes

1. Based on detailed map of the area. Distances are approximate.

Table F-12. Equipment Exhaust During Transmission Line Construction - Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
TRANSMISSION LINE LOOP-IN									
Survey									
2	½-Ton Pick-Up	200	3	8	1.4	10.5	11.4	0.0	0.4
	Total Survey				**1.4**	**10.5**	**11.4**	**0.0**	**0.4**
Marshalling Yards									
1	1-Ton Crew Cab	300	85	2	0.1	0.6	0.1	0.0	0.0
1	30-Ton Crane	300	85	2	0.4	1.6	4.0	0.0	0.2
2	10,000-Pound Rough-Terrain Forklift	200	85	5	0.7	1.8	8.3	0.0	0.3
1	Truck, Semi-Tractor	350	85	1	0.1	0.4	1.3	0.0	0.1
	Total Marshalling Yards				**1.3**	**4.4**	**13.7**	**0.0**	**0.5**
Roads and Landing Work									
1	1-Ton Crew Cab	300	3	5	0.2	1.6	0.2	0.0	0.0
1	Road Grader	350	3	6	1.4	5.3	14.3	0.0	0.5
1	Track-Type Dozer	350	3	6	2.3	11.9	21.0	0.0	0.9
1	Drum-Type Compactor	250	3	6	1.5	4.2	16.9	0.0	0.6
3	Water Truck	350	3	10	3.2	12.3	40.1	0.0	1.9
1	Lowboy Truck & Trailer	250	3	4	0.4	1.6	5.3	0.0	0.3
1	Excavator	300	3	6	1.3	4.3	13.3	0.0	0.5
1	Front-End Loader	350	3	6	1.7	5.8	18.8	0.0	0.7
	Total Roads and Landing Work				**12.1**	**46.9**	**130.1**	**0.1**	**5.4**
Install Foundations									
4	1-Ton Crew Cab	300	17	6	0.8	7.6	0.8	0.0	0.1
2	30-Ton Crane	300	17	5	2.0	7.8	19.9	0.0	0.8
1	Front-End Loader	200	17	5	0.8	2.2	9.0	0.0	0.3
2	Diggers	500	17	8	4.6	15.3	50.2	0.1	1.8
2	4,000-Gallon Water Truck	350	17	5	1.1	4.1	13.4	0.0	0.6
6	Concrete Mixer Truck	425	17	5	3.2	12.3	40.1	0.0	1.9
	Total Install Foundations				**12.4**	**49.27**	**133.36**	**0.15**	**5.48**
Tower Legs Haul and Erect									
1	1-Ton Crew Cab	300	4	6	0.2	1.9	0.2	0.0	0.0
1	30-Ton Crane Truck	300	4	8	0.8	3.3	10.7	0.0	0.5
1	10,000-Pound Rough-Terrain Forklift	200	4	6	0.4	1.1	5.0	0.0	0.2
1	Truck & Trailer	350	4	5	0.5	2.0	6.7	0.0	0.3
1	10,000-Pound Rough-Terrain Forklift	200	5	8	0.6	1.5	6.7	0.0	0.2
2	Truck & Trailer	350	5	10	2.1	8.2	26.7	0.0	1.3
	Total Tower Legs Haul and Erect				**4.7**	**17.93**	**55.97**	**0.06**	**2.51**

Table F-12. Equipment Exhaust During Transmission Line Construction - Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Tower Assembly									
2	Rough-Terrain Crane	400	8	8	3.2	12.4	31.8	0.0	1.2
2	Crane Truck	300	8	8	1.7	6.5	21.4	0.0	1.0
2	Rough-Terrain Fork Lift	200	8	5	0.7	1.8	8.3	0.0	0.3
3	Pick-Up Truck	300	8	10	2.7	19.8	21.3	0.0	0.8
4	Crew Cab Flat-Bed	300	8	5	0.6	6.3	0.7	0.0	0.1
2	Compressor Truck	350	8	5	1.1	4.1	13.4	0.0	0.6
Total Tower Assembly					**10.0**	**50.94**	**96.90**	**0.10**	**3.99**
Tower TSP Erection									
1	Pick-Up Truck	300	8	5	0.4	3.3	3.6	0.0	0.1
2	Crew Cab Flat-Bed	300	8	5	0.3	3.2	0.3	0.0	0.0
1	Compressor Truck	350	8	5	0.5	2.0	6.7	0.0	0.3
1	Rough-Terrain Crane	500	8	6	1.2	4.7	11.9	0.0	0.5
Total Tower TSP Erection					**2.5**	**13.2**	**22.5**	**0.0**	**0.9**
Tower Removal									
1	Pick-Up Truck	300	4	8	0.7	5.3	5.7	0.0	0.2
1	Flat-Bed Truck	350	4	8	0.3	2.5	0.3	0.0	0.0
Total Tower Removal					**1.0**	**7.8**	**6.0**	**0.0**	**0.2**
Conductor Installation									
3	Crew Cab Flat-Bed Bed	300	10	8	0.8	7.6	0.8	0.0	0.1
2	Wire Truck & Trailer	350	6	2	0.4	1.6	5.3	0.0	0.3
1	Dump Truck (Trash)	350	10	2	0.2	0.8	2.7	0.0	0.1
1	Pick-Up Truck	300	10	10	0.9	6.6	7.1	0.0	0.3
2	Manitex	350	10	6	2.3	8.5	27.3	0.0	0.9
1	Manitex	350	10	8	1.6	5.7	18.2	0.0	0.6
2	Sleeving Rigs	350	10	2	0.6	2.3	8.1	0.0	0.3
1	Log Truck & Trailer	500	10	2	0.2	0.8	2.7	0.0	0.1
1	Rough-Terrain Fork Lift	350	10	2	0.1	0.4	1.7	0.0	0.1
1	580 Case Backhoe	120	6	2	0.2	0.7	1.3	0.0	0.1
4	Spacing Cart	10	6	4	0.2	1.0	1.2	0.0	0.1
1	Static Truck	350	6	2	0.2	0.8	2.7	0.0	0.1
1	Static Tensioner	0	6	2	0.0	0.1	0.1	0.0	0.0
2	3-Drum Strawline Puller	300	6	4	1.6	5.7	18.2	0.0	0.6
1	60lk Puller	525	6	3	0.6	2.1	6.8	0.0	0.2
1	Sag Cat with 2 Winches	350	6	2	0.4	1.4	4.6	0.0	0.2
4	D8 Cat	300	6	1	1.2	3.8	12.6	0.0	0.4
1	Hughes 500 E Helicopter	650	3	4	1.5	17.6	16.6	1.4	2.3
1	Fuel, Helicopter Support Truck	300	3	2	0.2	0.8	2.7	0.0	0.1
1	Low Boy Truck & Trailer	500	10	2	0.2	0.8	2.7	0.0	0.1
Total Conductor Installation					**13.4**	**69.1**	**143.3**	**1.5**	**7.0**

Table F-12. Equipment Exhaust During Transmission Line Construction - Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Restoration									
1	Crew Cab	300	4	5	0.2	1.6	0.2	0.0	0.0
1	Road Grader	350	4	6	1.4	5.3	14.3	0.0	0.5
1	Track-Type Dozer	350	4	6	2.3	11.9	21.0	0.0	0.9
1	Drum-Type Compactor	250	4	6	1.5	4.2	16.9	0.0	0.6
3	Water Trucks	350	4	10	3.2	12.3	40.1	0.0	1.9
1	Lowboy Truck & Trailer	500	4	4	0.4	1.6	5.3	0.0	0.3
1	Front End Loader	350	4	6	1.7	5.8	18.8	0.0	0.7
1	Excavator	300	4	6	1.3	4.3	13.3	0.0	0.5
Total Restoration					**12.1**	**46.9**	**130.1**	**0.1**	**5.4**
Maximum Daily Emissions FromTransmission Line Construction					**13.4**	**69.1**	**143.3**	**1.5**	**7.0**

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Table F-13. Transmission Line Emission Factors

Off-Road Construction Equipment		Emission Factors						Notes:
		HP (hp)	ROG (lb/hr)	CO (lb/hr)	NOX (lb/hr)	SOX (lb/hr)	PM (lb/hr)	
	Bore/Drill Rigs	350	0.1566	0.5631	2.0226	0.0031	0.0640	Used for drillers, and sleeve rigs
	Crushers/Process Equipment	250	0.2529	0.7004	2.8190	0.0028	0.0959	Used for compactors
		300	0.2012	0.7762	1.9878	0.0018	0.0771	
		400	0.2012	0.7762	1.9878	0.0018	0.0771	
	Cranes	500	0.2012	0.7762	1.9878	0.0018	0.0771	Used for cranes
	Excavators	300	0.2175	0.7092	2.2162	0.0023	0.0803	Used for excavators
		200	0.0716	0.1822	0.8315	0.0009	0.0254	
	Forklifts	350	0.0716	0.1822	0.8315	0.0009	0.0254	Used for forklifts
	Graders	350	0.2360	0.8828	2.3908	0.0023	0.0904	Used for graders
		0	0.0119	0.0617	0.0750	0.0002	0.0046	
		10	0.0119	0.0617	0.0750	0.0002	0.0046	
		300	0.1944	0.7066	2.2771	0.0025	0.0770	
		350	0.1944	0.7066	2.2771	0.0025	0.0770	
	Other Construction Equipment	525	0.1944	0.7066	2.2771	0.0025	0.0770	Used for manitex, spacing carts, pullers, and tensioners
	Other General Industrial Equipment	650	0.4552	1.5794	4.8663	0.0044	0.1724	
		300	0.3895	1.9869	3.5050	0.0026	0.1495	
	Rubber-Tired Dozers	350	0.3895	1.9869	3.5050	0.0026	0.1495	Used for dozers
		120	0.1083	0.3703	0.6510	0.0006	0.0595	
		200	0.1598	0.4453	1.7937	0.0019	0.0598	
		300	0.2897	0.9591	3.1387	0.0039	0.1102	
		350	0.2897	0.9591	3.1387	0.0039	0.1102	
	Tractors/Loaders/Backhoes	500	0.2897	0.9591	3.1387	0.0039	0.1102	Used for all backhoes, excavators, loaders & ditch diggers

Source: SCAQMD Air Quality Handbook, Off-Road Emissions Sources - (http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html)

	HP (hp)	ROG (lb/hr)	CO (lb/hr)	NOX (lb/hr)	SOX (lb/hr)	PM (lb/hr)	
Helicopters	650	0.3677	4.4054	4.1474	0.3483	0.5805	Used for helicopters

Source: EPA 420-R-92-009 - Procedures for Emission Inventory Preparation, Volume IV, Mobile Sources, December 1992

- (http://www.ntl.bts.gov/docs/AQP.html - Table 5-7, Pg. 185)

On-Road Vehicles

	HP (hp)	ROG (lb/hr)	CO (lb/hr)	NOX (lb/hr)	SOX (lb/hr)	PM (lb/hr)	
Crew & Foreman Trucks (Suburbans) (pounds/mile x 30 miles/hour)	Composite	0.032376	0.316453	0.033086	0.000323	0.002552	Used 'passenger vehicle' emfac
Pick-Up Trucks (pounds/mile) x 30 miles/hour	Composite	0.089781	0.658475	0.711377	0.00077	0.025682	Used 'delivery trucks' emfac
Heavy Duty Trucks and Truck-Mounted Equipment (pounds/mile) x 30 miles/hour	Composite	0.105474	0.40841	1.337405	0.001241	0.064691	Used 'heavy-heavy-duty trucks' emfac

Source: SCAQMD Air Quality Handbook, Emfac2007 (Ver2.3) Emission Factors (On-Road), Scenario Year 2008 - http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html

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Table F-14. Equipment Exhaust During Subtransmission Line Construction - Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Subtransmission Lines									
	Survey								
1	½-Ton Pick-Up Truck, 4X4	200	3	10	0.9	6.6	7.1	0.0	0.3
	Total Survey				**0.9**	**6.6**	**7.1**	**0.0**	**0.3**
	Roads								
2	1-Ton Crew Cab, 4X4	300	10	2	0.1	1.3	0.1	0.0	0.0
1	Road Grader	350	10	10	2.4	8.8	23.9	0.0	0.9
2	Track Type Dozer	350	10	2.5	1.9	9.9	17.5	0.0	0.7
1	Water Truck	350	10	10	1.1	4.1	13.4	0.0	0.6
	Total Roads				**5.5**	**24.1**	**54.9**	**0.0**	**2.3**
	Pole Framing and Setting								
2	¾-Ton Suburban	300	147	10	0.6	6.3	0.7	0.0	0.1
2	5-Ton Framing Truck, 4X4	350	83	10	2.1	8.2	26.7	0.0	1.3
2	30-Ton Line Truck	350	83	10	2.1	8.2	26.7	0.0	1.3
1	Digger Truck	500	24	10	1.1	4.1	13.4	0.0	0.6
1	Water Truck	350	83	10	1.1	4.1	13.4	0.0	0.6
2	Backhoe	350	147	10	5.8	19.2	62.8	0.1	2.2
2	Bucket Truck	350	147	10	2.1	8.5	27.3	0.0	1.0
2	Truck Mounted Crane	350	147	10	2.1	8.2	26.7	0.0	1.3
1	30-Ton Crane	500	14	10	2.0	7.8	19.9	0.0	0.8
1	Cement Truck	350	3	10	1.1	4.1	13.4	0.0	0.6
	Total Pole Framing and Setting				**20.1**	**78.5**	**230.9**	**0.2**	**9.8**
	Material Delivery								
2	60-Foot Flat-Bed Pole Truck	350	5	8	1.7	6.5	21.4	0.0	1.0
1	Forklift	200	5	8	0.6	1.5	6.7	0.0	0.2
	Total Material Delivery				**2.3**	**8.0**	**28.1**	**0.0**	**1.2**
	Conductor Installation								
1	Flat-Bed Truck & Trailer (Wire Puller)	300	24	6	0.6	2.5	8.0	0.0	0.4
1	Flat-Bed Truck & Trailer (Wire Dolly)	300	24	6	0.6	2.5	8.0	0.0	0.4
2	30-Ton Line Truck	300	24	5	1.1	4.1	13.4	0.0	0.6
2	¾-Ton Suburban	300	14	10	0.6	6.3	0.7	0.0	0.1
1	Water Truck	350	24	10	1.1	4.1	13.4	0.0	0.6
2	Bucket Truck	350	24	6	1.3	4.9	16.0	0.0	0.8
2	Truck Mounted Crane	350	24	6	1.3	4.9	16.0	0.0	0.8
	Total Conductor Installation				**6.6**	**29.2**	**75.6**	**0.1**	**3.7**
	Restoration								
2	1-Ton Crew Cab, 4X4	300	40	8	0.5	5.1	0.5	0.0	0.0
1	Water Truck	350	40	8	0.8	3.3	10.7	0.0	0.5
	Total Restoration				**1.4**	**8.3**	**11.2**	**0.0**	**0.6**

Table F-14. Equipment Exhaust During Subtransmission Line Construction - Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
	Maximum Daily Emissions From Subtransmission Line Construction				**20.1**	**78.5**	**230.9**	**0.2**	**9.8**
Mirage Substation									
	Civil								
1	Driller	Composite	50	8	1.0	4.2	10.7	0.0	0.5
2	Crew Truck	Composite	80	2	0.1	1.3	0.1	0.0	0.0
1	14-Ton Crane	Composite	25	4	0.7	2.4	6.4	0.0	0.3
1	Dump Truck	Composite	75	6	0.6	2.5	8.0	0.0	0.4
1	Tractor	Composite	75	6	0.7	2.4	4.6	0.0	0.4
1	5-Ton Truck	Composite	15	4	0.4	1.6	5.3	0.0	0.3
1	Forklift	Composite	75	4	0.3	1.0	2.4	0.0	0.1
1	Ditch Digger	Composite	55	6	1.0	3.5	7.9	0.0	0.4
	Total Civil				**5.0**	**18.9**	**45.7**	**0.0**	**2.3**
	Electrical								
2	Manlift	Composite	100	6	0.9	2.6	4.7	0.0	0.3
1	Pick-Up Truck	Composite	110	2	0.2	1.3	1.4	0.0	0.1
1	14-Ton Crane Truck	Composite	90	6	0.6	2.5	8.0	0.0	0.4
2	Crew Truck	Composite	110	2	0.1	1.3	0.1	0.0	0.0
1	150-Ton Crane	Composite	60	6	1.1	3.6	9.7	0.0	0.4
1	5-Ton Truck	Composite	50	2	0.2	0.8	2.7	0.0	0.1
1	Forklift	Composite	100	6	0.5	1.5	3.6	0.0	0.2
2	Carryall Vehicle	Composite	110	2	0.4	1.6	5.3	0.0	0.3
1	Support Truck	Composite	25	2	0.2	0.8	2.7	0.0	0.1
	Total Electrical				**4.2**	**16.0**	**38.2**	**0.0**	**1.9**
	Transformer Installation								
2	Carryall Vehicle	Composite	22	6	1.3	4.9	16.0	0.0	0.8
1	Manlift	Composite	20	6	0.4	1.3	2.3	0.0	0.2
1	Forklift	Composite	22	6	0.5	1.5	3.6	0.0	0.2
1	50-Ton Crane	Composite	15	6	1.1	3.6	9.7	0.0	0.4
2	Crew Truck	Composite	22	2	0.1	1.3	0.1	0.0	0.0
	Total Transformer Installation				**3.4**	**12.5**	**31.8**	**0.0**	**1.6**
	Maintenance								
1	Foreman Truck	Composite	40	2	0.1	0.6	0.1	0.0	0.0
1	Manlift	Composite	40	6	0.4	1.3	2.3	0.0	0.2
2	Crew Truck	Composite	110	2	0.1	1.3	0.1	0.0	0.0
	Total Maintenance				**0.6**	**3.2**	**2.5**	**0.0**	**0.2**
	Test								
1	Pick-Up Truck	Composite	110	2	0.2	1.3	1.4	0.0	0.1
	Total Test				**0.2**	**1.3**	**1.4**	**0.0**	**0.1**
	Total Mirage Substation				**13.43**	**51.96**	**119.57**	**0.12**	**6.05**

Table F-14. Equipment Exhaust During Subtransmission Line Construction - Exhaust Emissions									
	Construction	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Concho Substation									
	Electrical								
1	Carryall Vehicle	Composite	34	2	0.2	0.8	2.7	0.0	0.1
	Test								
1	Pick-Up Truck	Composite	34	2	0.2	1.3	1.4	0.0	0.1
	Total Concho Substation				**0.39**	**2.13**	**4.10**	**0.00**	**0.18**
Indian Wells Substation									
	Electrical								
1	Carryall Vehicle	Composite	50	2	0.2	0.8	2.7	0.0	0.1
	Test								
1	Pick-Up Truck	Composite	50	2	0.2	1.3	1.4	0.0	0.1
	Total Indian Wells Substation				**0.4**	**2.1**	**4.1**	**0.0**	**0.2**
Santa Rosa Substation									
	Electrical								
1	Carryall Vehicle	Composite	40	2	0.2	0.8	2.7	0.0	0.1
	Test								
1	Pick-Up Truck	Composite	40	2	0.2	1.3	1.4	0.0	0.1
	Total Santa Rosa Substation				**0.4**	**2.1**	**4.1**	**0.0**	**0.2**
Devers Substation									
	Civil								
1	Driller	Composite	2	8	1.0	4.2	10.7	0.0	0.5
1	Crew Truck	Composite	5	2	0.1	0.6	0.1	0.0	0.0
1	Dump Truck	Composite	5	6	0.6	2.5	8.0	0.0	0.4
1	Tractor	Composite	5	6	0.7	2.4	4.6	0.0	0.4
	Total Civil				**2.5**	**9.7**	**23.5**	**0.0**	**1.2**
	Electrical								
1	Manlift	Composite	45	6	0.4	1.3	2.3	0.0	0.2
1	Pick-Up Truck	Composite	60	2	0.2	1.3	1.4	0.0	0.1
1	Crew Truck	Composite	60	2	0.1	0.6	0.1	0.0	0.0
1	150-Ton Crane	Composite	10	6	1.1	3.6	9.7	0.0	0.4
1	Forklift	Composite	40	6	0.5	1.5	3.6	0.0	0.2
1	Carryall Vehicle	Composite	60	2	0.2	0.8	2.7	0.0	0.1
	Total Electrical				**2.4**	**9.1**	**19.7**	**0.0**	**1.0**

Table F-14. Equipment Exhaust During Subtransmission Line Construction - Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Maintenance									
1	Foreman Truck	Composite	5	2	0.1	0.6	0.1	0.0	0.0
1	Crew Truck	Composite	10	2	0.1	0.6	0.1	0.0	0.0
Total Maintenance					**0.1**	**1.3**	**0.1**	**0.0**	**0.0**
Test									
1	Pick-Up Truck	Composite	20	2	0.2	1.3	1.4	0.0	0.1
Total Test					**0.2**	**1.3**	**1.4**	**0.0**	**0.1**
Total Devers Substation					**5.2**	**21.5**	**44.8**	**0.0**	**2.3**
Eisenhower Substation									
Civil									
1	Driller	Composite	5	8	1.0	4.2	10.7	0.0	0.5
1	Crew Truck	Composite	15	2	0.1	0.6	0.1	0.0	0.0
1	Dump Truck	Composite	15	6	0.6	2.5	8.0	0.0	0.4
1	Tractor	Composite	15	6	0.7	2.4	4.6	0.0	0.4
1	Ditch Digger	Composite	5	6	1.0	3.5	7.9	0.0	0.4
Total Civil					**3.5**	**13.2**	**31.4**	**0.0**	**1.7**
Electrical									
1	Manlift	Composite	35	6	0.4	1.3	2.3	0.0	0.2
1	Crew Truck	Composite	45	2	0.1	0.6	0.1	0.0	0.0
1	150-Ton Crane	Composite	20	6	1.1	3.6	9.7	0.0	0.4
1	Forklift	Composite	45	6	0.5	1.5	3.6	0.0	0.2
1	Carryall Vehicle	Composite	45	2	0.2	0.8	2.7	0.0	0.1
Total Electrical					**2.3**	**7.8**	**18.3**	**0.0**	**0.9**
Maintenance									
1	Foreman Truck	Composite	5	2	0.1	0.6	0.1	0.0	0.0
1	Crew Truck	Composite	10	2	0.1	0.6	0.1	0.0	0.0
Total Maintenance					**0.1**	**1.3**	**0.1**	**0.0**	**0.0**
Test									
1	Pick-Up Truck	Composite	45	2	0.2	1.3	1.4	0.0	0.1
Total Test					**0.2**	**1.3**	**1.4**	**0.0**	**0.1**
Total Eisenhower Substation					**6.1**	**23.7**	**51.3**	**0.1**	**2.6**

Table F-14. Equipment Exhaust During Subtransmission Line Construction - Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Farrell Substation									
	Civil								
1	Driller	Composite	10	8	1.0	4.2	10.7	0.0	0.5
1	Crew Truck	Composite	20	2	0.1	0.6	0.1	0.0	0.0
1	Dump Truck	Composite	20	6	0.6	2.5	8.0	0.0	0.4
1	Tractor	Composite	20	6	0.7	2.4	4.6	0.0	0.4
1	Ditch Digger	Composite	10	6	1.0	3.5	7.9	0.0	0.4
	Total Civil				**3.5**	**13.2**	**31.4**	**0.0**	**1.7**
	Electrical								
1	Manlift	Composite	40	6	0.4	1.3	2.3	0.0	0.2
1	Crew Truck	Composite	55	2	0.1	0.6	0.1	0.0	0.0
1	150-Ton Crane	Composite	25	6	1.1	3.6	9.7	0.0	0.4
1	Forklift	Composite	55	6	0.5	1.5	3.6	0.0	0.2
1	Carryall Vehicle	Composite	55	2	0.2	0.8	2.7	0.0	0.1
	Total Electrical				**2.3**	**7.8**	**18.3**	**0.0**	**0.9**
	Maintenance								
1	Foreman Truck	Composite	5	2	0.1	0.6	0.1	0.0	0.0
1	Crew Truck	Composite	10	2	0.1	0.6	0.1	0.0	0.0
	Total Maintenance				**0.1**	**1.3**	**0.1**	**0.0**	**0.0**
	Test								
1	Pick-Up Truck	Composite	55	2	0.2	1.3	1.4	0.0	0.1
	Total Test				**0.2**	**1.3**	**1.4**	**0.0**	**0.1**
	Total Farrell Substation				**6.1**	**23.7**	**51.3**	**0.1**	**2.6**
Garnet Substation									
	Electrical								
1	Carryall Vehicle	Composite	16	2	0.2	0.8	2.7	0.0	0.1
	Test								
1	Pick-Up Truck	Composite	16	2	0.2	1.3	1.4	0.0	0.1
	Total Garnet Substation				**0.4**	**2.1**	**4.1**	**0.0**	**0.2**
Thornhill Substation									
	Electrical								
1	Carryall Vehicle	Composite	40	2	0.2	0.8	2.7	0.0	0.1
	Test								
1	Pick-Up Truck	Composite	40	2	0.2	1.3	1.4	0.0	0.1
	Total Thornhill Substation				**0.4**	**2.1**	**4.1**	**0.0**	**0.2**

Table F-14. Equipment Exhaust During Subtransmission Line Construction - Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Tamarisk Substation									
Civil									
1	Crew Truck	Composite	5	2	0.1	0.6	0.1	0.0	0.0
1	Dump Truck	Composite	5	6	0.6	2.5	8.0	0.0	0.4
1	Tractor	Composite	5	6	0.7	2.4	4.6	0.0	0.4
Total Civil					**1.4**	**5.5**	**12.7**	**0.0**	**0.8**
Electrical									
1	Manlift	Composite	5	6	0.4	1.3	2.3	0.0	0.2
1	Pick-Up Truck	Composite	40	2	0.2	1.3	1.4	0.0	0.1
1	Crew Truck	Composite	40	2	0.1	0.6	0.1	0.0	0.0
1	150-Ton Crane	Composite	2	6	1.1	3.6	9.7	0.0	0.4
1	Forklift	Composite	5	6	0.5	1.5	3.6	0.0	0.2
1	Carryall Vehicle	Composite	40	2	0.2	0.8	2.7	0.0	0.1
Total Electrical					**2.4**	**9.1**	**19.7**	**0.0**	**1.0**
Maintenance									
1	Foreman Truck	Composite	1	2	0.1	0.6	0.1	0.0	0.0
2	Crew Truck	Composite	2	2	0.1	1.3	0.1	0.0	0.0
Total Maintenance					**0.2**	**1.9**	**0.2**	**0.0**	**0.0**
Test									
1	Pick-Up Truck	Composite	30	2	0.2	1.3	1.4	0.0	0.1
Total Test					**0.2**	**1.3**	**1.4**	**0.0**	**0.1**
Total Tamarisk Substation					**4.2**	**17.9**	**34.1**	**0.0**	**1.8**

Note: Each simultaneous construction phase is calculated separately. Maximum daily emissions are for each construction segment are the maximum daily simultaneous emissions and are bold, italicized, and underlined.

Table F-15. Subtransmission Line Emission Factors

Off-Road Construction Equipment

	Emission Factors						Notes:
	HP (hp)	ROG (lb/hr)	CO (lb/hr)	NOX (lb/hr)	SOX (lb/hr)	PM (lb/hr)	
Aerial Lifts	Composite	0.0746	0.2200	0.3885	0.0004	0.0269	Used for manlifts
Bore/Drill Rigs	Composite	0.1295	0.5281	1.3416	0.0017	0.0591	Used for drillers, and sleeve rigs
Cranes	500	0.2012	0.7762	1.9878	0.0018	0.0771	
	Composite	0.1778	0.6011	1.6100	0.0014	0.0715	Used for all cranes
Excavators	Composite	0.1695	0.5828	1.3249	0.0013	0.0727	Used for excavators and ditch diggers
Forklifts	200	0.0716	0.1822	0.8315	0.0009	0.0254	
	Composite	0.0799	0.2422	0.5982	0.0006	0.0324	Used for forklifts
Graders	350	0.2360	0.8828	2.3908	0.0023	0.0904	Used for graders
Off-Highway Trucks	Composite	0.2730	0.8499	2.7256	0.0027	0.0989	Used for all diesel trucks & carryall vehicles
Other Material Handling Equipment	Composite	0.1952	0.6041	1.7655	0.0015	0.0786	Used for cable puller & conductor tensioner
Other Construction Equipment	Composite	0.1215	0.4504	1.1575	0.0013	0.0503	Used for cable dollies
Rubber-Tired Dozers	350	0.3895	1.9869	3.5050	0.0026	0.1495	Used for dozers
Tractors/Loaders/Backhoes	350	0.2897	0.9591	3.1387	0.0039	0.1102	
	Composite	0.1204	0.4063	0.7746	0.0008	0.0599	Used for all backhoes & ditch diggers

Source: SCAQMD Air Quality Handbook, Off-Road Emissions Sources - (http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html)

On-Road Vehicles

	HP (hp)	ROG (lb/hr)	CO (lb/hr)	NOX (lb/hr)	SOX (lb/hr)	PM (lb/hr)	
Crew & Foreman Trucks (Suburbans) (pounds/mile x 30 miles/hour)	Composite	0.032376	0.316453	0.033086	0.000323	0.002552	Used 'passenger vehicle' emfac
Pickup Trucks (pounds/mile) x 30 miles/hour	Composite	0.089781	0.658475	0.711377	0.00077	0.025682	Used 'delivery trucks' emfac
Heavy Duty Trucks and Truck-Mounted Equipment (pounds/mile) x 30 miles/hour	Composite	0.105474	0.40841	1.337405	0.001241	0.064691	Used 'heavy-heavy-duty trucks' emfac

Source: SCAQMD Air Quality Handbook, Emfac2007 (Ver2.3) Emission Factors (On-Road), Scenario Year 2008 - http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html

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Table F-16. Equipment Exhaust During Telecommunication Construction - Exhaust Emissions

Construction Phase	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Mirage-Santa Rosa								
Cable Construction								
2 Bucket Truck	Composite	5	8	1.7	6.5	21.4	0.0	1.0
1 Pick-Up	Composite	5	8	0.0	0.2	0.2	0.0	0.0
1 2-Axle Trailer	Composite	5	8	1.6	4.8	14.1	0.0	0.6
Total Cable Construction				**3.3**	**11.5**	**35.7**	**0.0**	**1.7**
Receive and Loadout								
1 5-Ton Forklift	Composite	1	8	0.6	1.9	4.8	0.0	0.3
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Receive and Loadout				**0.7**	**2.1**	**5.0**	**0.0**	**0.3**
Clean-Up								
2 Bucket Truck	Composite	1	8	1.7	6.5	21.4	0.0	1.0
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**1.7**	**6.7**	**21.6**	**0.0**	**1.0**
Total Mirage Santa Rosa				**5.65**	**20.37**	**62.28**	**0.06**	**2.98**
Farrell-Garnet								
Cable Construction								
2 Bucket Truck	Composite	18	8	1.7	6.5	21.4	0.0	1.0
1 Pick-Up	Composite	18	8	0.0	0.2	0.2	0.0	0.0
1 2-Axle Trailer	Composite	18	8	1.6	4.8	14.1	0.0	0.6
Total Cable Construction				**3.3**	**11.5**	**35.7**	**0.0**	**1.7**
Receive and Loadout								
1 5-Ton Forklift	Composite	1	8	0.6	1.9	4.8	0.0	0.3
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Receive and Loadout				**0.7**	**2.1**	**5.0**	**0.0**	**0.3**
Clean-Up								
2 Bucket Truck	Composite	1	8	1.7	6.5	21.4	0.0	1.0
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**1.7**	**6.7**	**21.6**	**0.0**	**1.0**
Total Farrel Garnet				**5.65**	**20.37**	**62.28**	**0.06**	**2.98**
Devers								
Equipment Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Cable Construction				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Circuit Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Circuit Installation				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**

Table F-16. Equipment Exhaust During Telecommunication Construction - Exhaust Emissions

Construction Phase	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Devers				**0.12**	**0.88**	**0.95**	**0.00**	**0.03**
Mirage								
Equipment Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Cable Construction				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Circuit Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Circuit Installation				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Mirage				**0.12**	**0.88**	**0.95**	**0.00**	**0.03**
Tamarisk								
Equipment Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Cable Construction				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Circuit Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Circuit Installation				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Tamarisk				**0.12**	**0.88**	**0.95**	**0.00**	**0.03**
Eisenhower								
Equipment Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Cable Construction				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Circuit Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Circuit Installation				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Eisenhower				**0.12**	**0.88**	**0.95**	**0.00**	**0.03**

Table F-16. Equipment Exhaust During Telecommunication Construction - Exhaust Emissions

Construction Phase	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Concho								
Equipment Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Cable Construction				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Circuit Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Circuit Installation				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Concho				**0.12**	**0.88**	**0.95**	**0.00**	**0.03**
Indian Wells								
Equipment Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Cable Construction				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Circuit Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Circuit Installation				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Indian Wells				**0.12**	**0.88**	**0.95**	**0.00**	**0.03**
Santa Rosa								
Equipment Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Cable Construction				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Circuit Installation								
2 Pick-Up	Composite	6	8	0.0	0.4	0.4	0.0	0.0
Total Circuit Installation				**0.0**	**0.4**	**0.4**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Santa Rosa				**0.12**	**0.88**	**0.95**	**0.00**	**0.03**

Table F-16. Equipment Exhaust During Telecommunication Construction - Exhaust Emissions

Construction Phase	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
Thornhill								
Equipment Installation								
1 Pick-Up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Cable Construction				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Circuit Installation								
1 Pick-Up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Circuit Installation				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Thornhill				**0.07**	**0.53**	**0.57**	**0.00**	**0.02**
Garnet								
Equipment Installation								
1 Pick-up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Cable Construction				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Circuit Installation								
1 Pick-Up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Circuit Installation				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Garnet				**0.07**	**0.53**	**0.57**	**0.00**	**0.02**
Farrell								
Equipment Installation								
1 Pick-Up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Cable Construction				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Circuit Installation								
1 Pick-Up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Circuit Installation				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Farrell				**0.07**	**0.53**	**0.57**	**0.00**	**0.02**

Table F-16. Equipment Exhaust During Telecommunication Construction - Exhaust Emissions

Construction Phase	HP	Duration (days)	Usage (hour/day)	ROG Emissions (lb/day)	CO Emissions (lb/day)	NOX Emissions (lb/day)	SOX Emissions (lb/day)	PM10 Emissions (lb/day)
EDOM Hill								
Equipment Installation								
1 Pick-Up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Cable Construction				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Circuit Installation								
1 Pick-Up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Circuit Installation				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total EDOM Hills				**0.07**	**0.53**	**0.57**	**0.00**	**0.02**
Palm Springs								
Equipment Installation								
1 Pick-Up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Cable Construction				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Circuit Installation								
1 Pick-Up	Composite	6	8	0.0	0.2	0.2	0.0	0.0
Total Circuit Installation				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Clean-Up								
1 Pick-Up	Composite	1	8	0.0	0.2	0.2	0.0	0.0
Total Clean-Up				**0.0**	**0.2**	**0.2**	**0.0**	**0.0**
Total Palm Springs				**0.07**	**0.53**	**0.57**	**0.00**	**0.02**
MAX DAILY EMISSIONS DURING CONSTRUCTION				**5.6**	**20.4**	**62.3**	**0.1**	**3.0**

Note: Each simultaneous construction phase is calculated separately. Maximum daily emissions are for each construction segment are the maximum daily simultaneous emissions and are bold, italicized, and underlined. Annual emissions are the sum of all construction phases.

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Table F-17. Telecommunication Equipment Emission Factors

Off-Road Construction Equipment	Emission Factors						Notes:
	HP (hp)	ROG (lb/hr)	CO (lb/hr)	NOX (lb/hr)	SOX (lb/hr)	PM (lb/hr)	
Forklifts	Composite	0.0799	0.2422	0.5982	0.0006	0.0324	Used for forklifts
Off-Highway Trucks	Composite	0.2730	0.8499	2.7256	0.0027	0.0989	Used for all diesel trucks & carryall vehicles
Other Material Handling Equipment	Composite	0.1952	0.6041	1.7655	0.0015	0.0786	Used for cable puller & conductor tensioner

Source: SCAQMD Air Quality Handbook, Off-Road Emissions Sources - (http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html)

On-Road Vehicles

	HP (hp)	ROG (lb/hr)	CO (lb/hr)	NOX (lb/hr)	SOX (lb/hr)	PM (lb/hr)	
Crew & Foreman Trucks (Suburbans) (pounds/mile x 30 miles/hour)	Composite	0.001079	0.010548	0.001103	1.08E-05	0.000085	Used 'passenger vehicle' emfac
Pickup Trucks (pounds/mile) x 30 miles/hour	Composite	0.002993	0.021949	0.023713	2.57E-05	0.000856	Used 'delivery trucks' emfac
Heavy Duty Trucks and Truck-Mounted Equipment (pounds/miles) x 30 miles/hour	Composite	0.105474	0.40841	1.337405	0.001241	0.064691	Used 'heavy-heavy-duty trucks' emfac

Source: SCAQMD Air Quality Handbook, Emfac2007 (Ver2.3) Emission Factors (On-Road), Scenario Year 2008 - http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html

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Table F-18. Maximum Project CO2 Emissions Summary

Construction Phase	Maximum Emissions (tons/project) CO2
Transmission Line Loop-In [1]	
On-Site Vehicle Exhaust	356.27
Employee Vehicles	19.31
Total	375.58
Subtransmission Line [2]	
On-Site Vehicle Exhaust	1377.29
Employee Vehicles	141.32
Total	1518.62
Devers Substation Construction	
On-Site Vehicle Exhaust	36.03
Employee Vehicles	12.05
Total	48.09
Mirage Substation Construction	
On-Site Vehicle Exhaust	319.04
Employee Vehicles	128.29
Total	447.33
Concho Substation Construction	
On-Site Vehicle Exhaust	7.07
Employee Vehicles	3.72
Total	10.79
Indian Wells Substation Construction	
On-Site Vehicle Exhaust	10.40
Employee Vehicles	5.48
Total	15.87
Santa Rosa Substation Construction	
On-Site Vehicle Exhaust	8.32
Employee Vehicles	4.38
Total	12.70
Eisenhower Substation Construction	
On-Site Vehicle Exhaust	44.32
Employee Vehicles	12.05
Total	56.37
Farrell Substation Construction	
On-Site Vehicle Exhaust	58.97
Employee Vehicles	15.89
Total	74.85

Table F-18. Maximum Project CO2 Emissions Summary

Construction Phase	Maximum Emissions (tons/project) CO2
Garnet Substation Construction	
On-Site Vehicle Exhaust	3.33
Employee Vehicles	1.75
Total	5.08
Thornhill Substation Construction	
On-Site Vehicle Exhaust	8.32
Employee Vehicles	4.38
Total	12.70
Tamarisk Substation Construction	
On-Site Vehicle Exhaust	17.42
Employee Vehicles	14.05
Total	31.47
Telecommunications Line	
On-Site Vehicle Exhaust	125.82
Employee Vehicles	14.05
Total	139.87
Project Total Emissions	**2749.31**

Table F-19. Employee Vehicle - CO2 Exhaust Emissions

Employee Vehicle Emissions

Emission Factors
from SCAQMD Highest (Most Conservative) EMFAC 2007 Emission Factors for On-Road Passenger Vehicles and Delivery Trucks

E=F* VMT*DAYS/2000
F = Emission factor per passenger vehicle (lb/VMT)
VMT = Vehicle Miles Traveled

VMT per employee = 50 miles (assumed)
DAYS = Employee-days traveling to/from project
E = Emissions tons/project
Emission Factors for 2008 (lb/VMT)
CO2 = 1.09553

Emission Summary

Construction Phase	Employee-days per project*	CO2 (tons/project)
Transmission Line Loop-In	705	19.31
Subtransmission Lines	5160	141.32
Devers Substation	440	12.05
Mirage Substation	4684	128.29
Concho Substation	136	3.72
Indian Wells Substation	200	5.48
Santa Rosa Substation	160	4.38
Eisenhower Substation	440	12.05
Farrell Substation	580	15.89
Garnet Substation	64	1.75
Thornhill Substation	160	4.38
Tamarisk Substation	195	5.34
Telecommunication	513	14.05
Total Emissions		**368.02**

* Computed by calculating the person-days for each activity with the construction phase and summing over all activities.

Table F-20. Subtransmission Line Construction - Route Details

Route	Distance (Miles)	
	Paved	Unpaved
Farrell-Garnet (Alternative Route 1) Starting from Devers Substation	6.00	2.33
Farrell-Garnet (Alternative Route 2) Starting from Devers Substation	4.60	4.77
Farrell-Garnet (Alternative Route 3) Starting from Devers Substation	7.00	2.33
Devers Coachella Loo Starting from Mirage Substation	0.00	0.95
Mirage-Santa Rosa (Alternative Route 1) Starting from Mirage Substation	0.00	1.42
Mirage-Santa Rosa (Alternative Route 2) Starting from Mirage Substation	2.93	0.00
Bob Hope Dr. & Dinah Shore Dr. Substation Line Reconfiguration (Alternative Route 1) Starting from Mirage Substation	2.67	1.42
Bob Hope Dr. & Dinah Shore Dr. Substation Line Reconfiguration (Alternative Route 2) Starting from Mirage Substation	2.77	0.00
Gerald Ford Dr. & Portola Ave. Substation Line Reconfiguration (Alternative Route 1) Starting from Mirage Substation	0.00	2.02
Gerald Ford Dr. & Portola Ave. Substation Line Reconfiguration (Alternative Route 2) Starting from Mirage Substation	2.97	0.57

Notes

1. Based on detailed map of the area. Distances are approximate.

Table F-21. Equipment Exhaust During Transmission Line Construction - CO2 Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (pounds/day)	CO2 Emissions (tons/project)
TRANSMISSION LINE LOOP-IN						
Survey						
2	½-Ton Pick-Up	200	3	8	1305.3	2.0
Total Survey					**1305.3**	**2.0**
Marshalling Yards						
1	1-Ton Crew Cab	300	85	2	66.0	2.8
1	30-Ton Crane	300	85	2	360.2	15.3
2	10,000-Pound Rough-Terrain Forklift	200	85	5	771.0	32.8
1	Truck, Semi-Tractor	350	85	1	126.3	5.4
Total Marshalling Yards					**1323.5**	**56.2**
Roads and Landing Work						
1	1-Ton Crew Cab	300	3	5	164.9	0.2
1	Road Grader	350	3	6	1377.0	2.1
1	Track-Type Dozer	350	3	6	1589.4	2.4
1	Drum-Type Compactor	250	3	6	1467.0	2.2
3	Water Truck	350	3	10	3789.6	5.7
1	Lowboy Truck & Trailer	250	3	4	505.3	0.8
1	Excavator	300	3	6	1402.2	2.1
1	Front End Loader	350	3	6	2069.4	3.1
Total Roads and Landing Work					**12364.8**	**18.5**
Install Foundations						
4	1-Ton Crew Cab	300	17	6	791.7	6.7
2	30-Ton Crane	300	17	5	1801.0	15.3
1	Front End Loader	200	17	5	858.5	7.3
2	Digger	500	17	8	5518.4	46.9

Table F-21. Equipment Exhaust During Transmission Line Construction - CO2 Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (pounds/day)	CO2 Emissions (tons/project)
2	4,000 Gallon Water Truck	350	17	5	1263.2	10.7
6	Concrete Mixer Truck	425	17	5	3789.6	32.2
Total Install Foundations					**14022.37**	**119.19**
Tower Legs Haul and Erect						
1	Ton Crew Cab	300	4	6	197.9	0.4
1	30-Ton Crane Truck	300	4	8	1010.6	2.0
1	10,000-Pound Rough-Terrain Forklift	200	4	6	462.6	0.9
1	Truck & Trailer	350	4	5	631.6	1.3
1	10,000-Pound Rough-Terrain Forklift	200	5	8	616.8	1.5
2	Truck & Trailer	350	5	10	2526.4	6.3
Total Tower Legs Haul and Erect					**5445.88**	**12.46**
Tower Assembly						
2	Rough-Terrain Crane	400	8	8	2881.6	11.5
2	Crane Truck	300	8	8	2021.1	8.1
2	Rough-Terrain Fork Lift	200	8	5	771.0	3.1
3	Pick-Up Truck	300	8	10	2447.5	9.8
4	Crew Cab Flat-Bed	300	8	5	659.7	2.6
2	Compressor Truck	350	8	5	1263.2	5.1
Total Tower Assembly					**10044.13**	**40.18**

Table F-21. Equipment Exhaust During Transmission Line Construction - CO2 Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (pounds/day)	CO2 Emissions (tons/project)
Tower TSP Erection						
1	Pick-Up Truck	300	8	5	407.9	1.6
2	Crew Cab Flat-Bed	300	8	5	329.9	1.3
1	Compressor Truck	350	8	5	631.6	2.5
1	Rough-Terrain Crane	500	8	6	1080.6	4.3
Total Tower TSP Erection					**2450.0**	**9.8**
Tower Removal						
1	Pick-Up Truck	300	4	8	652.7	1.3
1	Flat-Bed Truck	350	4	8	263.9	0.5
Total Tower Removal					**916.6**	**1.8**
Conductor Installation						
3	Crew Cab Flat-Bed Bed	300	10	8	791.7	4.0
2	Wire Truck & Trailer	350	6	2	505.3	1.5
1	Dump Truck (Trash)	350	10	2	252.6	1.3
1	Pick-Up Truck	300	10	10	815.8	4.1
2	Manitex	350	10	6	3050.4	15.3
1	Manitex	350	10	8	2033.6	10.2
2	Sleeving Rigs	350	10	2	1245.2	6.2
1	Log Truck & Trailer	500	10	2	252.6	1.3
1	Rough-Terrain Fork Lift	350	10	2	154.2	0.8
1	580 Case Backhoe	120	6	2	103.4	0.3
4	Spacing Cart	10	6	4	161.6	0.5
1	Static Truck	350	6	2	252.6	0.8
1	Static Tensioner	0	6	2	20.2	0.1
2	3-Drum Strawline Puller	300	6	4	2033.6	6.1
1	60lk Puller	525	6	3	762.6	2.3
1	Sag Cat with 2 Winches	350	6	2	508.4	1.5

Table F-21. Equipment Exhaust During Transmission Line Construction - CO2 Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (pounds/day)	CO2 Emissions (tons/project)
4	D8 Cat	300	6	1	1379.6	4.1
1	Hughes 500 E Helicopter	650	3	4	6343.8	9.5
1	Fuel, Helicopter Support Truck	300	3	2	252.6	0.4
1	Lowboy Truck & Trailer	500	10	2	252.6	1.3
Total Conductor Installation					**21172.6**	**71.3**
Restoration						
1	Crew Cab	300	4	5	164.9	0.3
1	Road Grader	350	4	6	1377.0	2.8
1	Track-Type Dozer	350	4	6	1589.4	3.2
1	Drum-Type Compactor	250	4	6	1467.0	2.9
3	Water Truck	350	4	10	3789.6	7.6
1	Lowboy Truck & Trailer	500	4	4	505.3	1.0
1	Front End Loader	350	4	6	2069.4	4.1
1	Excavator	300	4	6	1402.2	2.8
Total Restoration					**12364.8**	**24.7**
Maximum Daily Emissions from Transmission Line Construction						**356.3**

Table F-22. Transmission Line Emission Factors

Off-Road Construction Equipment	Emission Factor HP (hp)	Emission Factor CO2 (lb/hr)	Notes:
Bore/Drill Rigs	350	311.3000	Used for drillers and sleeve rigs
Crushers/Process Equipment	250	244.5000	Used for compactors
	300	180.1000	
	400	180.1000	
Cranes	500	180.1000	Used for cranes
Excavators	300	233.7000	Used for excavators
	200	77.1000	
Forklifts	350	77.1000	Used for forklifts
Graders	350	229.5000	Used for graders
	0	10.1000	
	10	10.1000	
	300	254.2000	
	350	254.2000	
Other Construction Equipment	525	254.2000	Used for manitex, spacing carts, pullers, and tensioners
Other General Industrial Equipment	650	0.1724	
	300	264.9000	
Rubber-Tired Dozers	350	264.9000	Used for dozers
	120	51.7000	
	200	171.7000	
	300	344.9000	
	350	344.9000	
Tractors/Loaders/Backhoes	500	344.9000	Used for all backhoes, excavators, loaders & ditch diggers

Source: SCAQMD Air Quality Handbook, Off-Road Emissions Sources - (http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html)

	HP (hp)	CO2 (lb/hr)	
Helicopters	650	1585.9440	Used for helicopters - No emission factor, estimated by assuming a 360 times factor of the CO emission factor.

Source: EPA 420-R-92-009 - Procedures for Emission Inventory Preparation, Volume IV, Mobile Sources, December 1992 - (http://www.ntl.bts.gov/docs/AQP.html - Table 5-7, Pg. 185)

On-Road Vehicles

	HP (hp)	CO2 (lb/hr)	
Crew & Foreman Trucks (Suburbans) (pounds/mile x 30 miles/hour)	Composite	32.985968	Used 'passenger vehicle' emfac
Pick-Up Trucks (pounds/mile) x 30 miles/hour	Composite	81.58302	Used 'delivery trucks' emfac
Heavy Duty Trucks and Truck-Mounted Equipment (pounds/mile) x 30 miles/hour	Composite	126.32014	Used 'heavy-heavy-duty trucks' emfac

Source: SCAQMD Air Quality Handbook, Emfac2007 (Ver2.3) Emission Factors (On-Road), Scenario Year 2008 - http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html

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Table F-23. Equipment Exhaust During Subtransmission Line Construction – CO2 Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Subtransmission Lines						
	Survey					
1	½-Ton Pick-Up Truck 4X4	200	3	10	815.8	1.2
	Total Survey				**815.8**	**1.2**
	Roads					
2	1-Ton Crew Cab 4X4	300	10	2	131.9	0.7
1	Road Grader	350	10	10	2295.0	11.5
2	Track-Type Dozer	350	10	2.5	1324.5	6.6
1	Water Truck	350	10	10	1263.2	6.3
	Total Roads				**5014.6**	**25.1**
	Pole Framing and Setting					
2	¾-Ton Suburban	300	147	10	659.7	48.5
2	5-Ton Framing Truck 4X4	350	83	10	2526.4	104.8
2	30-Ton line Truck	350	83	10	2526.4	104.8
1	Digger Truck	500	24	10	1263.2	15.2
1	Water Truck	350	83	10	1263.2	52.4
2	Backhoe	350	147	10	6898.0	507.0
2	Bucket Truck	350	147	10	2601.0	191.2
2	Truck-Mounted Crane	350	147	10	2526.4	185.7
1	30-Ton Crane	500	14	10	1801.0	12.6
1	Cement Truck	350	3	10	1263.2	1.9
	Total Pole Framing and Setting				**23328.5**	**1224.1**

Table F-23. Equipment Exhaust During Subtransmission Line Construction – CO2 Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Material Delivery						
2	60-Foot Flat-Bed Pole Truck	350	5	8	2021.1	5.1
1	Forklift	200	5	8	616.8	1.5
Total Material Delivery					**2637.9**	**6.6**
Conductor Installation						
1	Flat-Bed Truck & Trailer (Wire Puller)	300	24	6	757.9	9.1
1	Flat-Bed Truck & Trailer (Wire Dolly)	300	24	6	757.9	9.1
2	30-Ton line Truck	300	24	5	1263.2	15.2
2	¾-Ton Suburban	300	14	10	659.7	4.6
1	Water Truck	350	24	10	1263.2	15.2
2	Bucket Truck	350	24	6	1515.8	18.2
2	Truck-Mounted Crane	350	24	6	1515.8	18.2
Total Conductor Installation					**7733.6**	**89.5**
Restoration						
2	1-Ton Crew Cab 4X4	300	40	8	527.8	10.6
1	Water Truck	350	40	8	1010.6	20.2
Total Restoration					**1538.3**	**30.8**
Total Emissions from Subtransmission Line Construction						**1377.3**
Mirage Substation						
Civil						
1	Driller	Composite	50	8	1319.2	33.0
2	Crew Truck	Composite	80	2	131.9	5.3
1	14-Ton Crane	Composite	25	4	514.8	6.4
1	Dump Truck	Composite	75	6	757.9	28.4
1	Tractor	Composite	75	6	400.8	15.0

Table F-23. Equipment Exhaust During Subtransmission Line Construction – CO2 Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
1	5-Ton Truck	Composite	15	4	505.3	3.8
1	Forklift	Composite	75	4	217.6	8.2
1	Ditch Digger	Composite	55	6	717.6	19.7
Total Civil					**4565.1**	**119.8**
Electrical						
2	Manlift	Composite	100	6	416.4	20.8
1	Pick-Up Truck	Composite	110	2	163.2	9.0
1	14-Ton Crane Truck	Composite	90	6	757.9	34.1
2	Crew Truck	Composite	110	2	131.9	7.3
1	150-Ton Crane	Composite	60	6	772.2	23.2
1	5-Ton Truck	Composite	50	2	252.6	6.3
1	Forklift	Composite	100	6	326.4	16.3
2	Carryall Vehicle	Composite	110	2	505.3	27.8
1	Support Truck	Composite	25	2	252.6	3.2
Total Electrical					**3578.6**	**147.9**
Transformer Installation						
2	Carryall Vehicle	Composite	22	6	1515.8	16.7
1	Manlift	Composite	20	6	208.2	2.1
1	Forklift	Composite	22	6	326.4	3.6
1	50-Ton Crane	Composite	15	6	772.2	5.8
2	Crew Truck	Composite	22	2	131.9	1.5
Total Transformer Installation					**2954.6**	**29.6**
Maintenance						
1	Foreman Truck	Composite	40	2	66.0	1.3
1	Manlift	Composite	40	6	208.2	4.2
2	Crew Truck	Composite	110	2	131.9	7.3
Total Maintenance					**406.1**	**12.7**

Table F-23. Equipment Exhaust During Subtransmission Line Construction – CO2 Exhaust Emissions

Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Test					
1 Pick-Up Truck	Composite	110	2	163.2	9.0
Total Test				**163.2**	**9.0**
Total Mirage Substation					**319.04**
Concho Substation					
Electrical					
1 Carryall Vehicle	Composite	34	2	252.6	4.3
Test					
1 Pick-Up Truck	Composite	34	2	163.2	2.8
Total Concho Substation					**7.07**
Indian Wells Substation					
Electrical					
1 Carryall Vehicle	Composite	50	2	252.6	6.3
Test					
1 Pick-Up Truck	Composite	50	2	163.2	4.1
Total Indian Wells Substation					**10.4**
Santa Rosa Substation					
Electrical					
1 Carryall Vehicle	Composite	40	2	252.6	5.1

Table F-23. Equipment Exhaust During Subtransmission Line Construction – CO2 Exhaust Emissions

Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Test					
1 Pick-Up Truck	Composite	40	2	163.2	3.3
Total Santa Rosa Substation					**8.3**
Devers Substation					
Civil					
1 Driller	Composite	2	8	1319.2	1.3
1 Crew Truck	Composite	5	2	66.0	0.2
1 Dump Truck	Composite	5	6	757.9	1.9
1 Tractor	Composite	5	6	400.8	1.0
Total Civil				**2543.9**	**4.4**
Electrical					
1 Manlift	Composite	45	6	208.2	4.7
1 Pick-Up Truck	Composite	60	2	163.2	4.9
1 Crew Truck	Composite	60	2	66.0	2.0
1 150-Ton Crane	Composite	10	6	772.2	3.9
1 Forklift	Composite	40	6	326.4	6.5
1 Carryall Vehicle	Composite	60	2	252.6	7.6
Total Electrical				**1788.6**	**29.5**
Maintenance					
1 Foreman Truck	Composite	5	2	66.0	0.2
1 Crew Truck	Composite	10	2	66.0	0.3
Total Maintenance				**131.9**	**0.5**

Table F-23. Equipment Exhaust During Subtransmission Line Construction – CO2 Exhaust Emissions

Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Test					
1 Pick-Up Truck	Composite	20	2	163.2	1.6
Total Test				**163.2**	**1.6**
Total Devers Substation					**36.0**
Eisenhower Substation					
Civil					
1 Driller	Composite	5	8	1319.2	3.3
1 Crew Truck	Composite	15	2	66.0	0.5
1 Dump Truck	Composite	15	6	757.9	5.7
1 Tractor	Composite	15	6	400.8	3.0
1 Ditch Digger	Composite	5	6	717.6	1.8
Total Civil				**3261.5**	**14.3**
Electrical					
1 Manlift	Composite	35	6	208.2	3.6
1 Crew Truck	Composite	45	2	66.0	1.5
1 150-Ton Crane	Composite	20	6	772.2	7.7
1 Forklift	Composite	45	6	326.4	7.3
1 Carryall Vehicle	Composite	45	2	252.6	5.7
Total Electrical				**1625.4**	**25.9**
Maintenance					
1 Foreman Truck	Composite	5	2	66.0	0.2
1 Crew Truck	Composite	10	2	66.0	0.3
Total Maintenance				**131.9**	**0.5**

Table F-23. Equipment Exhaust During Subtransmission Line Construction – CO2 Exhaust Emissions

Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Test					
1 Pick-Up Truck	Composite	45	2	163.2	3.7
Total Test				**163.2**	**3.7**
Total Eisenhower Substation					**44.3**
Farrell Substation					
Civil					
1 Driller	Composite	10	8	1319.2	6.6
1 Crew Truck	Composite	20	2	66.0	0.7
1 Dump Truck	Composite	20	6	757.9	7.6
1 Tractor	Composite	20	6	400.8	4.0
1 Ditch Digger	Composite	10	6	717.6	3.6
Total Civil				**3261.5**	**22.4**
Electrical					
1 Manlift	Composite	40	6	208.2	4.2
1 Crew Truck	Composite	55	2	66.0	1.8
1 150-Ton Crane	Composite	25	6	772.2	9.7
1 Forklift	Composite	55	6	326.4	9.0
1 Carryall Vehicle	Composite	55	2	252.6	6.9
Total Electrical				**1625.4**	**31.6**
Maintenance					
1 Foreman Truck	Composite	5	2	66.0	0.2
1 Crew Truck	Composite	10	2	66.0	0.3
Total Maintenance				**131.9**	**0.5**

Table F-23. Equipment Exhaust During Subtransmission Line Construction – CO2 Exhaust Emissions

Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Test					
1 Pick-Up Truck	Composite	55	2	163.2	4.5
Total Test				**163.2**	**4.5**
Total Farrell Substation					**59.0**
Garnet Substation					
Electrical					
1 Carryall Vehicle	Composite	16	2	252.6	2.0
Test					
1 Pick-Up Truck	Composite	16	2	163.2	1.3
Total Garnet Substation					**3.3**
Thornhill Substation					
Electrical					
1 Carryall Vehicle	Composite	40	2	252.6	5.1
Test					
1 Pick-Up Truck	Composite	40	2	163.2	3.3
Total Thornhill Substation					**8.3**
Tamarisk Substation					
Civil					
1 Crew Truck	Composite	5	2	66.0	0.2
1 Dump Truck	Composite	5	6	757.9	1.9
1 Tractor	Composite	5	6	400.8	1.0
Total Civil				**1224.7**	**3.1**

Table F-23. Equipment Exhaust During Subtransmission Line Construction – CO2 Exhaust Emissions

Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Electrical					
1 Manlift	Composite	5	6	208.2	0.5
1 Pick-Up Truck	Composite	40	2	163.2	3.3
1 Crew Truck	Composite	40	2	66.0	1.3
1 150-Ton Crane	Composite	2	6	772.2	0.8
1 Forklift	Composite	5	6	326.4	0.8
1 Carryall Vehicle	Composite	40	2	252.6	5.1
Total Electrical				**1788.6**	**11.7**
Maintenance					
1 Foreman Truck	Composite	1	2	66.0	0.0
2 Crew Truck	Composite	2	2	131.9	0.1
Total Maintenance				**197.9**	**0.2**
Test					
1 Pick-Up Truck	Composite	30	2	163.2	2.4
Total Test				**163.2**	**2.4**
Total Tamarisk Substation					**17.4**

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Table F-24. Subtransmission Line Emission Factors

Off-Road Construction Equipment	Emission Factors		Notes:
	HP	CO2	
	(hp)	(lb/hr)	
Aerial Lifts	Composite	34.7000	Used for manlifts
Bore/Drill Rigs	Composite	164.9000	Used for drillers and sleeve rigs
	500	180.1000	
Cranes	Composite	128.7000	Used for all cranes
Excavators	Composite	119.6000	Used for excavators and ditch diggers
	200	77.1000	
Forklifts	Composite	54.4000	Used for forklifts
Graders	350	229.5000	Used for graders
Off-Highway Trucks	Composite	260.1000	Used for all diesel trucks & carryall vehicles
Other Material Handling Equipment	Composite	141.2000	Used for cable puller & conductor tensioner
Other Construction Equipment	Composite	122.8000	Used for cable dollies
Rubber-Tired Dozers	350	264.9000	Used for dozers
	350	344.9000	
Tractors/Loaders/Backhoes	Composite	66.8000	Used for all backhoes & ditch diggers

Source: SCAQMD Air Quality Handbook, Off-Road Emissions Sources - (http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html)

On-Road Vehicles

	HP	CO2	
	(hp)	(lb/hr)	
Crew & Foreman Trucks (Suburbans) (pounds/mile x 30 miles/hour)	Composite	32.985968	Used 'passenger vehicle' emfac
Pick-Up Trucks (pounds/mile) x 30 miles/hour	Composite	81.58302	Used 'delivery trucks' emfac
Heavy Duty Trucks and Truck-Mounted Equipment (pounds/mile) x 30 miles/hour	Composite	126.3201435	Used 'heavy-heavy-duty trucks' emfac

Source: SCAQMD Air Quality Handbook, Emfac2007 (Ver2.3) Emission Factors (On-Road), Scenario Year 2008 - http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html

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Table F-25. Equipment Exhaust During Telecommunication Construction - CO2 Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Mirage-Santa Rosa						
	Cable Construction					
2	Bucket Truck	Composite	5	8	2021.1	5.1
1	Pick-Up	Composite	5	8	652.7	1.6
1	2-Axle Trailer	Composite	5	8	1129.6	2.8
	Total Cable Construction				**3803.4**	**9.5**
	Receive and Loadout					
1	5-Ton Forklift	Composite	1	8	435.2	0.2
1	Pick-Up	Composite	1	8	652.7	0.3
	Total Receive and Loadout				**1087.9**	**0.5**
	Clean-Up					
2	Bucket Truck	Composite	1	8	2021.1	1.0
1	Pick-Up	Composite	1	8	652.7	0.3
	Total Clean-Up				**2673.8**	**1.3**
	Total Mirage Santa Rosa					**11.39**
Farrell-Garnet						
	Cable Construction					
2	Bucket Truck	Composite	18	8	2021.1	18.2
1	Pick-Up	Composite	18	8	652.7	5.9
1	2-Axle Trailer	Composite	18	8	1129.6	10.2
	Total Cable Construction				**3803.4**	**34.2**
	Receive and Loadout					
1	5-Ton Forklift	Composite	1	8	435.2	0.2
1	Pick-Up	Composite	1	8	652.7	0.3
	Total Receive and Loadout				**1087.9**	**0.5**
	Clean-Up					
2	Bucket Truck	Composite	1	8	2021.1	1.0
1	Pick-Up	Composite	1	8	652.7	0.3
	Total Clean-Up				**2673.8**	**1.3**
	Total Farrel Garnet					**36.11**
Devers						
	Equipment Installation					
2	Pick-Up	Composite	6	8	1305.3	3.9
	Total Cable Construction				**1305.3**	**3.9**
	Circuit Installation					
2	Pick-Up	Composite	6	8	1305.3	3.9
	Total Circuit Installation				**1305.3**	**3.9**

Table F-25. Equipment Exhaust During Telecommunication Construction - CO2 Exhaust Emissions

	Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
	Clean-Up					
1	Pick-Up	Composite	1	8	652.7	0.3
	Total Clean-Up				**652.7**	**0.3**
	Total Devers					**8.16**
	Mirage					
	Equipment Installation					
2	Pick-Up	Composite	6	8	1305.3	3.9
	Total Cable Construction				**1305.3**	**3.9**
	Circuit Installation					
2	Pick-Up	Composite	6	8	1305.3	3.9
	Total Circuit Installation				**1305.3**	**3.9**
	Clean-Up					
1	Pick-Up	Composite	1	8	652.7	0.3
	Total Clean-Up				**652.7**	**0.3**
	Total Mirage					**8.16**
	Tamarisk					
	Equipment Installation					
2	Pick-Up	Composite	6	8	1305.3	3.9
	Total Cable Construction				**1305.3**	**3.9**
	Circuit Installation					
2	Pick-Up	Composite	6	8	1305.3	3.9
	Total Circuit Installation				**1305.3**	**3.9**
	Clean-Up					
1	Pick-Up	Composite	1	8	652.7	0.3
	Total Clean-Up				**652.7**	**0.3**
	Total Tamarisk					**8.16**
	Eisenhower					
	Equipment Installation					
2	Pick-Up	Composite	6	8	1305.3	3.9
	Total Cable Construction				**1305.3**	**3.9**
	Circuit Installation					
2	Pick-Up	Composite	6	8	1305.3	3.9
	Total Circuit Installation				**1305.3**	**3.9**
	Clean-Up					
1	Pick-Up	Composite	1	8	652.7	0.3

Table F-25. Equipment Exhaust During Telecommunication Construction - CO2 Exhaust Emissions

Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Total Clean-Up				**652.7**	**0.3**
Total Eisenhower					**8.16**
Concho					
Equipment Installation					
2 Pick-Up	Composite	6	8	1305.3	3.9
Total Cable Construction				**1305.3**	**3.9**
Circuit Installation					
2 Pick-Up	Composite	6	8	1305.3	3.9
Total Circuit Installation				**1305.3**	**3.9**
Clean-Up					
1 Pick-Up	Composite	1	8	652.7	0.3
Total Clean-Up				**652.7**	**0.3**
Total Concho					**8.16**
Indian Wells					
Equipment Installation					
2 Pick-Up	Composite	6	8	1305.3	3.9
Total Cable Construction				**1305.3**	**3.9**
Circuit Installation					
2 Pick-Up	Composite	6	8	1305.3	3.9
Total Circuit Installation				**1305.3**	**3.9**
Clean-Up					
1 Pick-Up	Composite	1	8	652.7	0.3
Total Clean-Up				**652.7**	**0.3**
Total Indian Wells					**8.16**
Santa Rosa					
Equipment Installation					
2 Pick-Up	Composite	6	8	1305.3	3.9
Total Cable Construction				**1305.3**	**3.9**
Circuit Installation					
2 Pick-Up	Composite	6	8	1305.3	3.9
Total Circuit Installation				**1305.3**	**3.9**
Clean-Up					
1 Pick-Up	Composite	1	8	652.7	0.3
Total Clean-Up				**652.7**	**0.3**
Total Santa Rosa					**8.16**

Table F-25. Equipment Exhaust During Telecommunication Construction - CO2 Exhaust Emissions

Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
Thornhill					
Equipment Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Cable Construction				**652.7**	**2.0**
Circuit Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Circuit Installation				**652.7**	**2.0**
Clean-Up					
1 Pick-Up	Composite	1	8	652.7	0.3
Total Clean-Up				**652.7**	**0.3**
Total Thornhill					**4.24**
Garnet					
Equipment Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Cable Construction				**652.7**	**2.0**
Circuit Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Circuit Installation				**652.7**	**2.0**
Clean-Up					
1 Pick-Up	Composite	1	8	652.7	0.3
Total Clean-Up				**652.7**	**0.3**
Total Garnet					**4.24**
Farrell					
Equipment Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Cable Construction				**652.7**	**2.0**
Circuit Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Circuit Installation				**652.7**	**2.0**
Clean-Up					
1 Pick-Up	Composite	1	8	652.7	0.3
Total Clean-Up				**652.7**	**0.3**
Total Farrell					**4.24**

Table F-25. Equipment Exhaust During Telecommunication Construction - CO2 Exhaust Emissions

Construction	HP	Duration (days)	Usage (hour/day)	CO2 Emissions (lb/day)	CO2 Emissions (tons/project)
EDOM Hill					
Equipment Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Cable Construction				**652.7**	**2.0**
Circuit Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Circuit Installation				**652.7**	**2.0**
Clean-Up					
1 Pick-Up	Composite	1	8	652.7	0.3
Total Clean-Up				**652.7**	**0.3**
Total EDOM Hills					**4.24**
Palm Springs					
Equipment Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Cable Construction				**652.7**	**2.0**
Circuit Installation					
1 Pick-Up	Composite	6	8	652.7	2.0
Total Circuit Installation				**652.7**	**2.0**
Clean-Up					
1 Pick-Up	Composite	1	8	652.7	0.3
Total Clean-Up				**652.7**	**0.3**
Total Palm Springs					**4.24**
TOTAL EMISSIONS DURING CONSTRUCTION					**125.8**

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Table F-26. Telecommunication Equipment Emission Factors

Off-Road Construction Equipment	Emission Factors		Notes:
	HP (hp)	CO2 (lb/hr)	
Forklifts	Composite	54.4000	Used for forklifts
Off-Highway Trucks	Composite	260.1000	Used for all diesel trucks & carryall vehicles
Other Material Handling Equipment	Composite	141.2000	Used for cable puller & conductor tensioner

Source: SCAQMD Air Quality Handbook, Off-Road Emissions Sources - (http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html)

On-Road Vehicles	HP (hp)	CO2 (lb/hr)	
Crew & Foreman Trucks (Suburbans) (pounds/mile x 30 miles/hour)	Composite	32.985968	Used 'passenger vehicle' emfac
Pickup Trucks (pounds/mile) x 30 miles/hour	Composite	81.58302	Used 'delivery trucks' emfac
Heavy Duty Trucks and Truck-Mounted Equipment (pounds/mile) x 30 miles/hour	Composite	126.3201435	Used 'heavy-heavy-duty trucks' emfac

Source: SCAQMD Air Quality Handbook, Emfac2007 (Ver2.3) Emission Factors (On-Road), Scenario Year 2008 - http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html

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Notes
Devers-Mirage 115 kV Construction

AQ Calculations by: Eric Rivero-Montes
Last Calculation Date: 11/20/2007
Project Description: As provided in PEA
Equipment List Provided by: As provided in PEA
Date Provided:

Schedule
Provided by:
Date Provided

Construction Element	Number of Personnel	Number of Days	Start Date	Finish Date	Equipment Requirements		HP	Hrs/Day	Notes
					Number	Description			
Roads	3								
		10			2	Crew Truck (gasoline)	200	2	ALW assumed HP
		10			2	Light Truck	180	2	ALW assumed HP
		10			1	Crawler D6	250	10	ALW assumed HP
		10			1	Crawler D8	250	10	ALW assumed HP
		10			1	Motor Grader	250	5	ALW assumed HP
		10			1	Water Truck	250	2	ALW assumed HP
Subtransmission Line	30	171			2	Crew Truck (gasoline)	200	10	ALW assumed HP
		107			2	Line Truck	250	10	ALW assumed HP
		107			2	Light Truck	180	10	ALW assumed HP
		171			2	Bucket Truck	250	10	ALW assumed HP
		107			2	Truck-Mounted Crane	250	10	ALW assumed HP
		24			1	Conductor-Pulling Machine	300	10	ALW assumed HP
		24			1	Tensioner (gasoline)	300	10	ALW assumed HP

Construction Element	Number of Personnel	Number of Days	Start Date	Finish Date	Equipment Requirements		HP	Hrs/Day	Notes
		14			1	30-Ton Crane	250	10	ALW assumed HP
		171			2	Backhoe	250	10	ALW assumed HP
		24			1	Drilling Rig	500	10	ALW assumed HP
		107			1	Water Truck	250	10	ALW assumed HP
		3			1	Concrete Truck	500	10	ALW assumed truck needed
		0			0	Flat-Bed Pole Truck	500	10	ALW assumed truck needed
Staging areas		0			0	Crane (diesel)	250	10	ALW assumed equipment needed
Staging areas		0			0	980 Loader (diesel)	250	10	ALW assumed equipment needed
Staging areas		0			0	Forklift (diesel)	250	10	ALW assumed equipment needed
Telecommunications									
Equipment Construction	2	13			2	Van (gasoline)	200	7	ALW assumed HP
Overhead Construction	4	50			1	Bucket Truck	250	8	ALW assumed HP
		50			1	Reel Truck	250	8	ALW assumed HP
Underground Conduit	3	5			1	Flat-Bed Truck	250	1	ALW assumed HP
		5			1	Backhoe	250	8	ALW assumed HP
		5			1	Stake-Bed Truck	250	2	ALW assumed HP
		5			1	Crew Truck (gasoline)	200	2	ALW assumed HP
	4	2			1	Bucket Truck	250	2	ALW assumed HP
		2			1	Reel Truck	250	2	ALW assumed HP

Appendix D

Certificate of Service and Mailing List

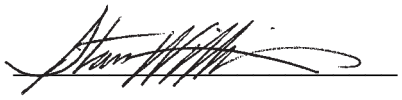
CERTIFICATE OF SERVICE

I, Stan Williams of Multimedia Designs, certify that I have on this date caused the following:

Publication of the Notice of Availability (NOA) of the Draft Environmental Impact Report (EIR), for SCE's Application to the California Public Utilities Commission pursuant to General Order (GO) 131-D to construct and operate the Devers-Mirage 115 kV Subtransmission System Split Project. The NOA is to be served by United States Postal Service (USPS) mail to the owners of property adjacent to the Proposed Project and alternative route alignments. Copies of the NOA and Draft EIR for Responsible, Trustee, and other local, State and federal public agencies whose jurisdiction falls within the project area; planning departments of Riverside County, the cities of Palm Springs, Rancho Mirage, Palm Desert, Cathedral City, and Indian Wells, and the community of Thousand Palms; and all individuals who submitted comments during the public scoping period (April 15, 2008 to May 15, 2008) are to be delivered via USPS mail or an overnight delivery service as documented in the comprehensive mailing list included in Appendix D of the Draft EIR.

I declare under penalty of perjury pursuant to the laws of the State of California that the foregoing is true and correct.

Executed on January 6, 2010 in Martinez, California.



Stan Williams

MASTER MAILING LIST:
AGENCIES, ORGANIZATIONS AND INDIVIDUALS
SENT THE DRAFT EIR VIA OVERNIGHT DELIVERY SERVICE

AGENCY/ORGANIZATION/ INDIVIDUAL	FIRST NAME	LAST NAME	STREET	CITY	STATE	ZIP CODE
LEAD AGENCY/APPLICANT						
California Public Utilities Commission	Eric	Chiang	505 Van Ness Avenue, Energy Division, Room 4A	San Francisco	CA	94102
Southern California Edison Company	Milissa	Marona	2244 Walnut Grove Avenue, Rm. 370	Rosemead	CA	91770
LOCAL LIBRARIES SERVING AS REPOSITORIES						
Cathedral City Branch Library	Amy	Dotson	33520 Date Palm Drive	Cathedral City	CA	92234-1307
Thousand Palms Branch Library	Sharon		31189 Roberts Road	Thousand Palms	CA	92276-3235

MASTER MAILING LIST:
AGENCIES AND INDIVIDUALS SENT A COMPACT DISC (CD)
OF DRAFT EIR VIA UNITED STATES POSTAL SERVICE

AGENCY/ORGANIZATION/ RESIDENT	FIRST NAME	LAST NAME	STREET	CITY	STATE	ZIP CODE
LOCAL AGENCIES						
City of Cathedral City	Bill	Bayne	68-700 Avenida Lalo Guerrero	Cathedral City	CA	92234
City of Palm Springs	Marcus	Fuller	3200 Tahquitz Canyon Drive	Palm Springs	CA	92263-2743
Riverside County Transportation Department, Dester Permit Assistance Center	Mojahed	Salama	38686 El Cerrito Road	Palm Desert	CA	92211
County of Riverside	George	Johnson	4080 Lemon St. 8th Floor	Riverside	CA	92501
County of Riverside	Ron	Goldman	4080 Lemon St. 9th Floor	Riverside	CA	92501
County of Riverside	Roy	Wilson	4080 Lemon St. 5th Floor	Riverside	CA	92501
South Coast Air Quality Management District	Steve	Smith	21865 Copley Drive	Diamond Bar	CA	91765-4182
Riverside County LAFCo	George J.	Spiliotis	3850 Vine Street, Suite 110	Riverside	CA	92507-4277
City of Palm Desert City Hall - Planning Department	Lori	Aylaian	73-510 Fred Waring Drive	Palm Desert	CA	92260
City of Palm Desert Public Works	Mark	Greenwood	73-510 Fred Waring Drive	Palm Desert	CA	92260
City of Palm Desert	Carlos	Artega	73-510 Fred Waring Drive	Palm Desert	CA	92260
City of Rancho Mirage Community Development Department	Randy	Bynder	69-825 Highway 111	Rancho Mirage	CA	92270
City of Indian Wells Planning Department	Corrie	Kates	44-950 Eldorado Drive	Indian Wells	CA	92210
Coachella Valley Water District	Georgia	Celehar	P.O. Box 1058	Coachella	CA	92236

MASTER MAILING LIST: (Continued)
AGENCIES AND INDIVIDUALS SENT A COMPACT DISC (CD) OF DRAFT EIR VIA UNITED STATES POSTAL SERVICE

AGENCY/ORGANIZATION/ RESIDENT	FIRST NAME	LAST NAME	STREET	CITY	STATE	ZIP CODE
STATE AGENCIES						
California Dept. of Transportation (Caltrans) District 8	Bill	Mosby	464 W. 4th Street, 6th Floor MF 1221	San Bernardino	CA	92401
California Department of Transportation, Division of Aeronautics--M.S. #40	Sandy	Hesnard	1120 N Street, P.O. Box 942873	Sacramento	CA	94273-0001
California Department of Public Health Environmental Management Branch	Robin	Hook	1616 Capitol Avenue, MS 7402	Sacramento	CA	95814-7402
Regional Water Quality Control Board	John	Carmona	3737 Main Street, Suite 500	Riverside	CA	92501-3348
California Department of Toxic Substances Control	Jim	Marxen	1001 I Street	Sacramento	CA	95814
California Department of Fish and Game, Region 6	Curt	Taucher	4665 Lampson Avenue, Suite J	Los Alamitos	CA	90720
California Resources Agency	Mike	Chrisman	1416 9th Street, Ste 1311	Sacramento	CA	95814
Office of Historic Preservation	Milford Wayne	Donaldson	1416 9th Street, Room 1442-7	Sacramento	CA	95814
California Native American Heritage Commission	David	Singleton	915 Capitol Mall, Room 364	Sacramento	CA	95814
California Department of Parks and Recreation, Inland Empire District	Enrique	Arroyo	17801 Lake Perris Drive	Perris	CA	92571
California State Lands Commission	Paul D.	Thayer	100 Howe Ave. Suite 100 South	Sacramento	CA	95825
Coachella Valley Mountains Conservancy	Gary	Hund	73-710 Fred Waring Drive, Suite 205	Palm Desert	CA	92260
California Air Resources Board	Catherine	Witherspoon	1001 I Street	Sacramento	CA	95812
California State Clearinghouse			1400 Tenth Street	Sacramento	CA	95814
FEDERAL AGENCIES						
US Army Corps of Engineers, Los Angeles District	David M.	Van Dorpe	915 Wilshire Blvd, Suite 1101	Los Angeles	CA	90017-3401
US Army Corps of Engineers, Los Angeles District	David	Castanon	915 Wilshire Blvd, Suite 1101	Los Angeles	CA	90017-3401
Bureau of Land Management	Diane	Gomez	1201 Bird Center Drive	Palm Springs	CA	92262
U.S. Bureau of Land Management	Mark	Massar	1201 Bird Center Drive	Palm Springs	CA	92262
U.S. Bureau of Land Management	John	Kalish	1201 Bird Center Drive	Palm Springs	CA	92262
U.S. Environmental Protection Agency Southern California Field Office	Steven	John	600 Wilshire Blvd., Suite 1460	Los Angeles	CA	90017
U.S. Fish and Wildlife Service	Eric	Portal	6010 Hidden Valley Road, Suite 101	Carlsbad	CA	92011

MASTER MAILING LIST: (Continued)
AGENCIES AND INDIVIDUALS SENT A COMPACT DISC (CD) OF DRAFT EIR VIA UNITED STATES POSTAL SERVICE

AGENCY/ORGANIZATION/ RESIDENT	FIRST NAME	LAST NAME	STREET	CITY	STATE	ZIP CODE
FEDERAL AGENCIES (cont.)						
U.S. Fish and Wildlife Service	Pete	Sorenson	6010 Hidden Valley Road, Suite 101	Carlsbad	CA	92011
Coachella Valley NWR	Ginny	Short	P.O. Box 188	Thousand Palms	CA	92276
NATIVE AMERICANS						
Agua Caliente Band of Cahuilla Indians	Richard	Begay	650 Tahquitz Canyon Way	Palm Springs	CA	92262
	Alvino	Siva	2034 W. Westward	Banning	CA	92220
	Anthony J.	Andreas Jr.	3022 W. Nicolet Street	Banning	CA	92220
Augustine Band of Cahuilla Mission Indians	Mary Ann	Green	P.O. Box 846	Coachella	CA	92236
Augustine Band of Cahuilla Mission Indians	Karen	Kupcha	P.O. Box 846	Coachella	CA	92236
Cabazon Band of Mission Indians	John A.	James	84245 Indio Springs Parkway	Indio	CA	92203-3499
Cabazon Band of Mission Indians	Judy	Stapp	84245 Indio Springs Parkway	Indio	CA	92203-3499
Morongo Band of Mission Indians	Britt W.	Wilson	245 N. Murray Street, Suite C	Banning	CA	92220
Ramona Band of Mission Indians	Terry	Hughes	P.O. Box 1291	Yucca Valley	CA	92286
Santa Rosa Band of Mission Indians	Ernest	Morreo	P.O. Box 609	Hemet	CA	92546
Torres-Martinez Desert Cahuilla Indians			P.O. Box 1160	Thermal	CA	92274
Torres-Martinez Desert Cahuilla Indians	Raymond	Torres	P.O. Box 1160	Thermal	CA	92274
Torres-Martinez Desert Cahuilla Indians	William J.	Contreras	P.O. Box 1160	Thermal	CA	92274
PUBLIC COMMENTERS						
	Thomas C.	MacMaster	641 Dunes Court	Palm Springs	CA	92264

MASTER MAILING LIST:
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	1 ASCONA TERRACE	RANCHO MIRAGE, CA	92270
NAME WITHHELD	1 CVS DR	WOONSOCKET, RI	02895
NAME WITHHELD	1 MARKET ST	SAN FRANCISCO, CA	94105
NAME WITHHELD	1 REGENCY	RANCHO MIRAGE, CA	92270
NAME WITHHELD	10 GUFFY RD	LARAMIE, WY	82070
NAME WITHHELD	10 OCEAN CREST CT	RCH PALOS VERDES, CA	90275
NAME WITHHELD	10 YORKSHIRE CT	RANCHO MIRAGE, CA	92270
NAME WITHHELD	100 S SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	100 S SUNRISE WAY 362	PALM SPRINGS, CA	92262
NAME WITHHELD	100 S SUNRISE WAY STE A	PALM SPRINGS, CA	92262
NAME WITHHELD	10055 STILBITE AVE	FOUNTAIN VALLEY, CA	92708
NAME WITHHELD	101 ASH ST NO HW07	SAN DIEGO, CA	92101
NAME WITHHELD	101 N TRYON ST	CHARLOTTE, NC	28255
NAME WITHHELD	10116 RIVERSIDE DR STE 300	TOLUCA LAKE, CA	91602
NAME WITHHELD	10224 HORLEY AVE	DOWNEY, CA	90241
NAME WITHHELD	1028 EILINITZ ST	GLENDALE, CA	91208
NAME WITHHELD	10377 N STAR TR	MORONGO VALLEY, CA	92256
NAME WITHHELD	104 WILMOT RD MS 1435	DEERFIELD, IL	60015
NAME WITHHELD	1045 VIA SAN MICHAEL	PALM SPRINGS, CA	92262
NAME WITHHELD	1055 OLYMPIC LN	SEASIDE, CA	93955
NAME WITHHELD	10592 LARRY DR	ANAHEIM, CA	92804
NAME WITHHELD	1060 KRATZER CIR	HENDERSON, NV	89002
NAME WITHHELD	1062 VIA SAN MICHAEL	PALM SPRINGS, CA	92262
NAME WITHHELD	10648 LINDBROOK DR	LOS ANGELES, CA	90024
NAME WITHHELD	1065 VIA SAN MICHAEL	PALM SPRINGS, CA	92262
NAME WITHHELD	10659 KING PHILLIP CT	SANTEE, CA	92071
NAME WITHHELD	108 TRIRFF CT	FOLSOM, CA	95630
NAME WITHHELD	1082 VIA SAN MICHAEL	PALM SPRINGS, CA	92262
NAME WITHHELD	1085 VIA SAN MICHAEL	PALM SPRINGS, CA	92262
NAME WITHHELD	1092 N LYRA WAY	BEAUMONT, CA	92223
NAME WITHHELD	1099 AZURE CT	PALM SPRINGS, CA	92262
NAME WITHHELD	10990 LAS CASITAS	ATASCADERO, CA	93422
NAME WITHHELD	11 GALENA	IRVINE, CA	92602
NAME WITHHELD	11 KAWAIKINI ST	WAILUKU, HI	96793
NAME WITHHELD	1101 ENTERPRISE DR	ROYERSFORD, PA	19468
NAME WITHHELD	11019 HORTENSE ST.	WEST TOLUCA LAKE, CA	91602
NAME WITHHELD	1102 VIA SAN MICHAEL	PALM SPRINGS, CA	92262
NAME WITHHELD	111 NE 29TH ST	WILTON MANORS, FL	33334
NAME WITHHELD	11101 KAIBAB RD SE	ALBUQUERQUE, NM	87123
NAME WITHHELD	11133 BRADDOCK DR	CULVER CITY, CA	90230
NAME WITHHELD	1117 S VICTORIA AVE	LOS ANGELES, CA	90019
NAME WITHHELD	11210 REFLECTION DR	RANCHO CUCAMONGA, CA	91737
NAME WITHHELD	1125 VIA SAN MICHAEL	PALM SPRINGS, CA	92262
NAME WITHHELD	11250 CHIEF LN	MORENO VALLEY, CA	92557
NAME WITHHELD	11276 GARDINERS CT	CYPRESS, CA	90630
NAME WITHHELD	1129 AZURE CT	PALM SPRINGS, CA	92262
NAME WITHHELD	1129 IDYLBERRY RD	SAN RAFAEL, CA	94903
NAME WITHHELD	11300 SORRENTO VALLEY 103	SAN DIEGO, CA	92121
NAME WITHHELD	11398 TRUST WAY	MORENO VALLEY, CA	92555
NAME WITHHELD	1143 W LINCOLN	BANNING, CA	92220
NAME WITHHELD	115 RETREAT	IRVINE, CA	92603

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	1152 N CLEVELAND UNT 1	CHICAGO, IL	60610
NAME WITHHELD	11544 LEGENDS LN	BEAUMONT, CA	92223
NAME WITHHELD	11560 TENNESSEE AVE	W LOS ANGELES, CA	90064
NAME WITHHELD	1159 AZURE CT	PALM SPRINGS, CA	92262
NAME WITHHELD	11620 WILSHIRE BLV NO 700	LOS ANGELES, CA	90025
NAME WITHHELD	117 S MAIN ST NO 101	LAKE ELSINORE, CA	92530
NAME WITHHELD	1183 PALMAS RIDGE	PALM SPRINGS, CA	92262
NAME WITHHELD	1190 AZURE CT	PALM SPRINGS, CA	92262
NAME WITHHELD	11999 SAN VICENTE STE 335	LOS ANGELES, CA	90049
NAME WITHHELD	120 W 157TH ST	GARDENA, CA	90248
NAME WITHHELD	1200 CALIFORNIA ST NO 104	REDLANDS, CA	92374
NAME WITHHELD	12005 SUSAN DR	GRANADA HILLS, CA	91344
NAME WITHHELD	1201 CALIFORNIA ST 604	SAN FRANCISCO, CA	94109
NAME WITHHELD	1207 STANDISH ST	ARCADIA, CA	91006
NAME WITHHELD	121 WOODCREST RD	CHERRY HILL, NJ	8003
NAME WITHHELD	12140 BAKMAN CT	LAKESIDE, CA	92040
NAME WITHHELD	12165 E VIA TOMA VISTA	YUMA, AZ	85367
NAME WITHHELD	12180 10TH ST	YUCAIPA, CA	92399
NAME WITHHELD	12208 E SILVA PL	CERRITOS, CA	90703
NAME WITHHELD	1228 WINGED FOOT DR	UPLAND, CA	91786
NAME WITHHELD	12322 MICHAELSFORD RD	HUNT VALLEY, MO	21030
NAME WITHHELD	12379 MIRACLE HILL RD	DESERT HOT SPRINGS, CA	92240
NAME WITHHELD	1248 MONTEZUMA WAY	WEST COVINA, CA	91791
NAME WITHHELD	125 AVENIDA FLORENCIA	SAN CLEMENTE, CA	92672
NAME WITHHELD	12505 HARRIS AVE	LYNWOOD, CA	90262
NAME WITHHELD	1260 CLEVELAND NO D 211	SAN DIEGO, CA	92103
NAME WITHHELD	12644 MEMORIAL WAY 1091	MORENO VALLEY, CA	92553
NAME WITHHELD	1281 S SUNFLOWER CIR	PALM SPRINGS, CA	92262
NAME WITHHELD	13017 ARTESIA BLV NO D200	CERRITOS, CA	90703
NAME WITHHELD	13040 CERISE AVE	HAWTHORNE, CA	90250
NAME WITHHELD	13052 CABRET CT	SANTA ANA, CA	92705
NAME WITHHELD	1310 RIVIERA DR	PASADENA, CA	91107
NAME WITHHELD	13381 AVE DE LAS FAMILIAS	DSRT HOT SPG, CA	92240
NAME WITHHELD	1346 THE ALAMEDA STE 7	SAN JOSE, CA	95126
NAME WITHHELD	135 N ACOMA	LAKE HAVASU CITY, AZ	86406
NAME WITHHELD	1361 VINCA WAY	SAN DIEGO, CA	92114
NAME WITHHELD	1371 SILVER STAR DR	HAILEY, ID	83333
NAME WITHHELD	13980 MIDVALE DR	WHITTIER, CA	90602
NAME WITHHELD	14 BUCKINGHAM WAY	RANCHO MIRAGE, CA	92270
NAME WITHHELD	14 VISTA MIRAGE WAY	RANCH MIRAGE, CA	92270
NAME WITHHELD	1414 CALLE ESPANA	SAN DIMAS, CA	91773
NAME WITHHELD	1415 OLIVE ST NO 310	ST LOUIS, MO	63103
NAME WITHHELD	1417 5TH ST APT 12	GLENDALE, CA	91201
NAME WITHHELD	1418 10TH AVE NO 3	SAN FRANCISCO, CA	94122
NAME WITHHELD	14221 DALLAS PKY NO 1000	DALLAS, TX	75254
NAME WITHHELD	14360 20TH AVE	SURREY BC CANADA	V4A7Y8
NAME WITHHELD	1443 S SUNFLOWER CIR	PALM SPRINGS, CA	92262
NAME WITHHELD	14462 GLORIETTA DR	SHERMAN OAKS, CA	91423
NAME WITHHELD	145 OASIS RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1450 UNVIERSITY AVE STE E	RIVERSIDE, CA	92507
NAME WITHHELD	1455 GLENVILLE DR	LOS ANGELES, CA	90035

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	1460 E RACQUET CLUB RD	PALM SPRINGS, CA	92262
NAME WITHHELD	14814 YELLOWLEAF TR	AUSTIN, TX	78728
NAME WITHHELD	1484 E GEM CIR	PALM SPRINGS, CA	92262
NAME WITHHELD	1485 WESTERLY TER	LOS ANGELES, CA	90026
NAME WITHHELD	15 HICKORY DR NO A	GREENWICH, CT	06831
NAME WITHHELD	1500 E SAN RAFAEL NO 105	PALM SPRINGS, CA	92262
NAME WITHHELD	1500 S HAVEN STE 100	ONTARIO, CA	91764
NAME WITHHELD	1507 SEACREST DR	CORONA DEL MAR, CA	92625
NAME WITHHELD	151 ST THOMAS PL	RANCHO MIRAGE, CA	92270
NAME WITHHELD	1511 CAMDEN AVE NO 203	LOS ANGELES, CA	90025
NAME WITHHELD	15126 HAWTHORN AVE	CHINO HILLS, CA	91709
NAME WITHHELD	1516 MANZANITA	PALM SPRINGS, CA	92262
NAME WITHHELD	1521 E TWIN STAR RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1525 KITSAP DR	BREMERTON, WA	98312
NAME WITHHELD	1535 OAK AVE	ARDEN HILLS, MN	55112
NAME WITHHELD	15375 BARRANCA PKY NO A112	IRVINE, CA	92718
NAME WITHHELD	15380 SW HOLLY HILL RD	HILLSBORO, OR	97123
NAME WITHHELD	154 SANTA CATALINA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1541 E TWIN STAR RD	PALM SPRINGS, CA	92263
NAME WITHHELD	1549 S 9TH AVE	HACIENDA HEIGHTS, CA	91745
NAME WITHHELD	1550 N PALM CANYON	PALM SPRINGS, CA	92262
NAME WITHHELD	1555 S PALM CANYON DR	PALM SPRINGS, CA	92264
NAME WITHHELD	15557 OLD MAGNOLIA CT	GULFPORT, MS	39503
NAME WITHHELD	1559 S CURSON AVE	LOS ANGELES, CA	90019
NAME WITHHELD	1560 SANDSTONE BLUFF VIEW	MESQUITE, NV	89034
NAME WITHHELD	1563 FOUR SEASONS BLV	PALM SPRINGS, CA	92262
NAME WITHHELD	15777 VERNON RD	WHITEWATER, CA	92282
NAME WITHHELD	1581 E TWIN STAR RD	PALM SPRINGS, CA	92263
NAME WITHHELD	1581 FOUR SEASONS BLV	PALM SPRINGS, CA	92262
NAME WITHHELD	1595 SABITA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	15971 COTTONWOOD DR	WHITEWATER, CA	92282
NAME WITHHELD	1599 AMELIA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	160 SHERRI LN	OCEANSIDE, CA	92054
NAME WITHHELD	1601 OLGA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	1604 LORENA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	1605 SABITA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	16073 MT HICKS ST	FOUNTAIN VALLEY, CA	92708
NAME WITHHELD	1608 SABITA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	1610 E ST ANDREW STE B150	SANTA ANA, CA	92705
NAME WITHHELD	1610 WINDER ST	SAN DIEGO, CA	92103
NAME WITHHELD	1611 RACQUET CLUB RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1619 JULIA CT	PALM SPRINGS, CA	92262
NAME WITHHELD	16200 VENTURA BLVD 302	ENCINO, CA	91436
NAME WITHHELD	1622 JULIA CT	PALM SPRINGS, CA	92262
NAME WITHHELD	1622 VIA ROBERTO MIGUEL	PALM SPRINGS, CA	92262
NAME WITHHELD	1631 OLGA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	16311 RED SKY CT	RIVERSIDE, CA	92503
NAME WITHHELD	1632 E VIA ESCUELA	PALM SPRINGS, CA	92262
NAME WITHHELD	1639 RAQUET CLUB WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	1649 CAPALINA RD NO 500	SAN MARCOS, CA	92069
NAME WITHHELD	1649 WALTER CT	COLTON, CA	92324

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	1650 AMELIA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	16515 ELM CR	FOUNTAIN VALLEY, CA	92708
NAME WITHHELD	1653 DAVIE ST	VANCOUVER BC CANADA	V6G1W1
NAME WITHHELD	1654 DEL DAYO DR	CARMICHAEL, CA	95608
NAME WITHHELD	1657 SAVVY CT	PALM SPRINGS, CA	92262
NAME WITHHELD	1659 VIA ROBERTO MIGUEL	PALM SPRINGS, CA	92262
NAME WITHHELD	1661 JULIA CT	PALM SPRINGS, CA	92262
NAME WITHHELD	1662 ENCLAVE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	1662 LA MESA DR	LA VERNE, CA	91750
NAME WITHHELD	16637 FOOTHILL BLV	SYLMAR, CA	91342
NAME WITHHELD	1669 RAQUET CLUB RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1671 NW 101 WAY	PLANTATION, FL	33322
NAME WITHHELD	16787 BEACH BLV NO 264	HUNTINGTON BEACH, CA	92647
NAME WITHHELD	1680 SIENNA CT	PALM SPRINGS, CA	92262
NAME WITHHELD	16813 ADDISON ST	ENCINO, CA	91436
NAME WITHHELD	16868 A ST	HUNTINGTON BEACH, CA	92647
NAME WITHHELD	1692 E VIA ESCUELA	PALM SPRINGS, CA	92262
NAME WITHHELD	1695 SPRUCE ST	RIVERSIDE, CA	92501
NAME WITHHELD	1698 AMELIA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	170 MANCHESTER DR NO 206	BUFFALO GROVE, IL	60089
NAME WITHHELD	1700 FARNAM ST 10TH FL S	OMAHA, NE	68102
NAME WITHHELD	1710 HOT SPRINGS WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	1711 E PALM CANYON DR	PALM SPRINGS, CA	92264
NAME WITHHELD	1717 VISTA CHINO, #A5	PALM SPRINGS, CA	92262
NAME WITHHELD	17177 VISTA CHINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1720 BRAEBURN RD	ALTADENA, CA	91001
NAME WITHHELD	1722 FLEETWOOD ST	BOULDER, NY	89005
NAME WITHHELD	1722 FRUITVALE AVE	OAKLAND, CA	94601
NAME WITHHELD	17335 CLEAR SPRING WAY	RIVERSIDE, CA	92503
NAME WITHHELD	1736 CEDAR ST	SANTA MONICA, CA	90405
NAME WITHHELD	175 E MAIN AVE NO 130	MORGAN HILL, CA	95037
NAME WITHHELD	175 RADIO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1750 E OCEAN BLV NO 608	LONG BEACH, CA	90802
NAME WITHHELD	1750 JOYCE DR	PALM SPRINGS, CA	92262
NAME WITHHELD	1751 N SUNRISE WAY, #F1	PALM SPRINGS, CA	92262
NAME WITHHELD	17565 EDGEWOOD LN	YORBA LINDA, CA	92886
NAME WITHHELD	1757 TAPO CANYON RD SVW88	SIMI VALLEY, CA	93063
NAME WITHHELD	17719 NE 104TH WAY	REDMOND, WA	98052
NAME WITHHELD	178 SAN RAFAEL DR	PALM SPRINGS, CA	92262
NAME WITHHELD	17989 VIA FRONTERA	CHINO HILLS, CA	91709
NAME WITHHELD	180 E OCEAN BLV 3RD FL	LONG BEACH, CA	90802
NAME WITHHELD	180 OASIS RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1800 DESERT PARK AVE	PALM SPRINGS, CA	92262
NAME WITHHELD	1800 E RACQUET CLUB RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1800 EXECUTIVE DR	PALM SPRINGS, CA	92262
NAME WITHHELD	1800 S SUNRISE WAY	PALM SPRINGS, CA	92264
NAME WITHHELD	1800 VIA NEGOCIO, #3	PALM SPRINGS, CA	92262
NAME WITHHELD	1800 WHITEWATER CLUB DR	PALM SPRINGS, CA	92262
NAME WITHHELD	1807 13TH ST STE 103	SACRAMENTO, CA	95814
NAME WITHHELD	1809 E RACQUET CLUB RD	PALM SPRINGS, CA	92262
NAME WITHHELD	18123 COULTER PINE CT	WALNUT CREEK, CA	94595

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	1815 DEL LAGO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1815 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	1818 GLENWOOD LN	NEWPORT BEACH, CA	92660
NAME WITHHELD	1827 SHERER LN	GLENDALE, CA	91208
NAME WITHHELD	1831 BRIGDEN RD	PASADENA, CA	91104
NAME WITHHELD	184 VICTORIA LN	CALIMESA, CA	92320
NAME WITHHELD	1842 CARRIAGE LN	PALM SPRINGS, CA	92262
NAME WITHHELD	1842 N FARRELL DR	PALM SPRINGS, CA	92262
NAME WITHHELD	1849 SAWTELLE BLV STE 700	LOS ANGELES, CA	90025
NAME WITHHELD	19 HERO CT	PLEASANT HILL, CA	94523
NAME WITHHELD	190 GRAYSTONE TER	SAN FRANCISCO, CA	94114
NAME WITHHELD	1900 MAIN ST STE 310	IRVINE, CA	92614
NAME WITHHELD	1906A MARSHALLFIELD LN	REDONDO BEACH, CA	90278
NAME WITHHELD	19120 E GRANITE LN	OTIS ORCHARDS, WA	99207
NAME WITHHELD	1921 MANHATTAN AVE	HERMOSA BEACH, CA	90254
NAME WITHHELD	19292 SIERRA INEZ RD	IRVINE, CA	92603
NAME WITHHELD	1936 EAST 7775 SOUTH	SOUTH WEBER, UT	84405
NAME WITHHELD	194 BRIDGEVIEW	SAN FRANCISCO, CA	94124
NAME WITHHELD	1941 S BENSON AVE	ONTARIO, CA	91761
NAME WITHHELD	1946 PORT LOCKSLEIGH	NEWPORT BEACH, CA	92660
NAME WITHHELD	19468 SAGEBRUSH TR	DSRT HOT SPG, CA	92241
NAME WITHHELD	19587 CHUCKWALLA TR	DESERT HOT SPRINGS, CA	92241
NAME WITHHELD	1961 CARDIGAN WAY	SAN DIEGO, CA	92111
NAME WITHHELD	1970 PAPAGO LN	LAS VEGAS, NV	89109
NAME WITHHELD	1971 W 190TH ST NO 100	TORRANCE, CA	90504
NAME WITHHELD	19871 YORBA LINDA NO 102	YORBA LINDA, CA	92886
NAME WITHHELD	1995 MARKET ST	RIVERSIDE, CA	92501
NAME WITHHELD	2 CHATEAU CT	RANCHO MIRAGE, CA	92270
NAME WITHHELD	20 CENTURY CT	ROSEVILLE, CA	95678
NAME WITHHELD	20 VIA LUCCA APT C129	IRVINE, CA	92612
NAME WITHHELD	200 E FRANCIS DR UNT 130	PALM SPRINGS, CA	92262
NAME WITHHELD	2000 N CERRITOS RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2008 NORLOTI ST	PALM SPRINGS, CA	92262
NAME WITHHELD	2010 E 15TH ST	LOS ANGELES, CA	90021
NAME WITHHELD	2010 N SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2010 OXLEY ST	S PASADENA, CA	91030
NAME WITHHELD	2012 HILLDALE DR	LA CANADA, CA	91020
NAME WITHHELD	2018 NORLOTI ST	PALM SPRINGS, CA	92262
NAME WITHHELD	2024 REPUBLIC AVE	COSTA MESA, CA	92627
NAME WITHHELD	2025 E BALBOA BLVD	NEWPORT BEACH, CA	92661
NAME WITHHELD	2025 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2028 NORLOTI ST	PALM SPRINGS, CA	92262
NAME WITHHELD	2029 N FLOWER ST	SANTA ANA, CA	92706
NAME WITHHELD	2030 DALE ST	SAN DIEGO, CA	92104
NAME WITHHELD	2031 FOOTHILL DR	VISTA, CA	92084
NAME WITHHELD	2038 NORLOTI ST	PALM SPRINGS, CA	92262
NAME WITHHELD	2048 NORLOTI ST	PALM SPRINGS, CA	92262
NAME WITHHELD	2053 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2058 NORLOTI ST	PALM SPRINGS, CA	92262
NAME WITHHELD	2060 BROADWAY STE 380	BOULDER, CO	80302
NAME WITHHELD	2065 ROBERTA ST	RIVERSIDE, CA	92507

MASTER MAILING LIST: (Continued)
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RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	2068 NORLOTI ST	PALM SPRINGS, CA	92262
NAME WITHHELD	2075 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2080 SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2094 CHIA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2095 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2100 PALOMAR AIRPORT RD	CARLSBAD, CA	92011
NAME WITHHELD	2101 EAGLE WATCH DR	HENDERSON, NV	89012
NAME WITHHELD	2101 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2105 E RESEDA PL	ANAHEIM, CA	92806
NAME WITHHELD	2105 ROBERTO DR	PALM SPRINGS, CA	92262
NAME WITHHELD	2106 SHANNON WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	21091 HILLSDALE LN	HUNTINGTON BEACH, CA	92646
NAME WITHHELD	2112 SHANNON WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2116 W 238TH ST	TORRANCE, CA	90501
NAME WITHHELD	2117 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2132 SHANNON WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	21331 SEAFORTH LN	HUNTINGTON BEACH, CA	92646
NAME WITHHELD	2135 CHANDELEUR DR	RCH PALOS VERDES, CA	90275
NAME WITHHELD	2145 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2162 SHANNON WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2170 EMERALD ST	SAN DIEGO, CA	92109
NAME WITHHELD	2192 SHANNON WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	21942 VISO LN	MISSION VIEJO, CA	92691
NAME WITHHELD	2198 MEYER PL	COSTA MESA, CA	92627
NAME WITHHELD	2211 AMORITA AVE	LA HABRA, CA	90631
NAME WITHHELD	22205 SHADY RIM CIR	LAKE FOREST, CA	92630
NAME WITHHELD	2229 ECHO PARK AVE	LOS ANGELES, CA	90026
NAME WITHHELD	2229 LUNDY LAKE DR	ESCONDIDO, CA	92029
NAME WITHHELD	22359 GOLDEN CANYON CIR	CHATSWORTH, CA	91311
NAME WITHHELD	224 S LAS POSAS RD	SAN MARCOS, CA	92078
NAME WITHHELD	22427 CIRCLE J RANCH RD	SANTA CLARITA, CA	91350
NAME WITHHELD	227 ROMAIN ST	SAN FRANCISCO, CA	94131
NAME WITHHELD	2282 SHANNON WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	22825 PEBBLESTONE DR	NUEVO, CA	92567
NAME WITHHELD	2287 CASITAS WAY	PALM SPRINGS, CA	92264
NAME WITHHELD	2297 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2315 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2320 N SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2340 N LOS ALAMOS RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2342 SHANNON WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2345 SCENIC DR APT 146	MODESTO, CA	95355
NAME WITHHELD	2347 HILLHURST AVE	LOS ANGELES, CA	90027
NAME WITHHELD	2355 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	236 E HIGHWAY 81	BURLEY, ID	83318
NAME WITHHELD	2386 DEBORAH RD	PALM SPRINGS, CA	92262
NAME WITHHELD	23870 STAR CT	AUBURN, CA	95602
NAME WITHHELD	2388 N SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2392 MORSE AVE	IRVINE, CA	92614
NAME WITHHELD	2393 W NICOLA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	24 AVENIDA ANDRA	PALM DESERT, CA	92260
NAME WITHHELD	2400 SUNRISE WAY	PALM SPRINGS, CA	92262

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	24025 PARK SORRENTO 150	CALABASAS, CA	91302
NAME WITHHELD	242 S BROADWAY APT 409	LOS ANGELES, CA	90012
NAME WITHHELD	2425 N MILO DR	PALM SPRINGS, CA	92262
NAME WITHHELD	2436 W SILVERLAKE DR	LOS ANGELES, CA	90039
NAME WITHHELD	24367 LA MONTURA DR	VALENCIA, CA	91354
NAME WITHHELD	2454 ARLINE ST	W COVINA, CA	91792
NAME WITHHELD	2475 N VIA MONTE VISTA	PALM SPRINGS, CA	92262
NAME WITHHELD	249 LAS ENTRADAS DR	SANTA BARBARA, CA	93108
NAME WITHHELD	2495 CAMPUS DR	IRVINE, CA	92612
NAME WITHHELD	25283 CABOT RD STE 116	LAGUNA HILLS, CA	92653
NAME WITHHELD	255 N EL CIELO NO 675	PALM SPRINGS, CA	92262
NAME WITHHELD	255 N EL CIELO RD NO 140	PALM SPRINGS, CA	92262
NAME WITHHELD	255 N EL CIELO RD STE 233	PALM SPRINGS, CA	92262
NAME WITHHELD	2570 LA FRANCE DR	CARMICHAEL, CA	95608
NAME WITHHELD	2580 SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	26 CHAMPAGNE CIR	RANCHO MIRAGE, CA	92270
NAME WITHHELD	26 CORPORATE PLAZA STE 250	NEWPORT BEACH, CA	92660
NAME WITHHELD	2601 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2605 CYPRESS RD	PALM SPRINGS, CA	92262
NAME WITHHELD	261 S KAVENISH DR	RANCHO MIRAGE, CA	92270
NAME WITHHELD	2617 COLLEGE PARK	SCOTTSBLUFF, NE	69361
NAME WITHHELD	2618 VARGAS WAY	REDONDO BEACH, CA	90278
NAME WITHHELD	2619 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2619 SHERIDAN ST	HOLLYWOOD, FL	33020
NAME WITHHELD	2645 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2646 VISTA CHINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2655 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2660 DUNN RD	ARMSTRONG BC CANADA	V0E1B1
NAME WITHHELD	26600 AVD QUINTANA	CATHEDRAL CY, CA	92234
NAME WITHHELD	26632 TOWNE CENTER NO 300	FOOTHILL RANCH, CA	92610
NAME WITHHELD	2665 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2684 ISABELLA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	26862 BRIDLEWOOD DR	LAGUNA HILLS, CA	92653
NAME WITHHELD	271 W NAOMI AVE	ARCADIA, CA	91007
NAME WITHHELD	2714 BEE CAVE RD	AUSTIN, TX	78746
NAME WITHHELD	2718 ISABELLA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2722 N VISTA GRANDE	PALM SPRINGS, CA	92262
NAME WITHHELD	2722 SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2725 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	27325 VENTURA DR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	2738 BELDEN DR	LOS ANGELES, CA	90068
NAME WITHHELD	275 N BREA BLV	BREA, CA	92821
NAME WITHHELD	27533 ROAD H 6	CORTEZ, CO	81321
NAME WITHHELD	2754 ISABELLA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2757 E SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2770 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	27700 LANDAU BLV	CATHEDRAL CY, CA	92234
NAME WITHHELD	2777 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2780 ISABELLA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	27820 AVD QUINTANA	CATHEDRAL CY, CA	92234
NAME WITHHELD	27846 TANGELO ST	CATHEDRAL CY, CA	92234

MASTER MAILING LIST: (Continued)
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RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	27850 AVENIDA TERRAZO	CATHEDRAL CY, CA	92234
NAME WITHHELD	27859 SAN SEBASTIAN CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	27867 SAN MARTIN ST	CATHEDRAL CY, CA	92234
NAME WITHHELD	27870 TANGELO ST	CATHEDRAL CY, CA	92234
NAME WITHHELD	27875 AVENIDA MARAVILLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	27881 SAN MARTIN ST	CATHEDRAL CY, CA	92234
NAME WITHHELD	27892 TANGELO ST	CATHEDRAL CY, CA	92234
NAME WITHHELD	27893 AVENIDA MARAVILLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2790 DOIDGE AVENUE	PINOLE, CA	94564
NAME WITHHELD	2790 VISTA CHINO	PALM SPRINGS, CA	92262
NAME WITHHELD	27900 AVENIDA TERRAZO	CATHEDRAL CY, CA	92234
NAME WITHHELD	27902 VALENCIA ST	CATHEDRAL CY, CA	92234
NAME WITHHELD	27905 VENTURA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	27907 CAPTIVA PL	CATHEDRAL CY, CA	92234
NAME WITHHELD	2792 FYLER PLACE	LOS ANGELES, CA	90065
NAME WITHHELD	27922 CAPTIVA PL	CATHEDRAL CY, CA	92234
NAME WITHHELD	27931 CAPTIVA PL	CATHEDRAL CY, CA	92234
NAME WITHHELD	2794 SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	27946 CAPTIVA PL	CATHEDRAL CY, CA	92234
NAME WITHHELD	2795 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	27950 AVENIDA TERRAZO	CATHEDRAL CY, CA	92234
NAME WITHHELD	27954 VALENCIA ST	CATHEDRAL CY, CA	92234
NAME WITHHELD	27955 VENTURA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	27975 CARMELA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	27988 VALENCIA ST	CATHEDRAL CY, CA	92234
NAME WITHHELD	28010 PANORAMA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	28030 VAL YERMO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	28033 VAL YERMO DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	28045 AVENIDA MARAVILLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28055 AVENIDA LA PAZ	CATHEDRAL CY, CA	92234
NAME WITHHELD	28065 AVENIDA MARAVILLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28071 HORIZON RD	CATHEDRAL CITY CA	92234
NAME WITHHELD	281 S FIGUEROA ST 2ND FL	LOS ANGELES, CA	90012
NAME WITHHELD	28115 AVENIDA LA PAZ	CATHEDRAL CY, CA	92234
NAME WITHHELD	28181 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28200 AVENIDA LA VISTA, #B&C	CATHEDRAL CY, CA	92234
NAME WITHHELD	28201 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28201 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	2821 E SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	28211 DESERT PRINCESS DR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	28220 AVENIDA LA VISTA, #A	CATHEDRAL CY, CA	92234
NAME WITHHELD	28221 AVENIDA LA VISTA AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	28241 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28261 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28280 LANDAU BLV	CATHEDRAL CY, CA	92234
NAME WITHHELD	28281 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2830 VISTA CHINO	PALM SPRINGS, CA	92262
NAME WITHHELD	28321 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28340 LANDAU BLV	CATHEDRAL CITY, CA	92234
NAME WITHHELD	28341 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28361 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234

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RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	28391 AVD LA MANCHA	SAN JUAN CAPO, CA	92675
NAME WITHHELD	28391 AVENIDA LA MANCHA	SAN JUAN CAPO, CA	92675
NAME WITHHELD	28393 AVENIDA MARQUESA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28401 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28401 DATE PALM DR, #A	CATHEDRAL CY, CA	92234
NAME WITHHELD	28451 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28480 AVD CONDESA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2851 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2857 N LOS FELICES RD	PALM SPRINGS, CA	92262
NAME WITHHELD	28600 LANDAU BLV	CATHEDRAL CY, CA	92234
NAME WITHHELD	28621 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28640 LANDAU BLV NO 1	CATHEDRAL CITY, CA	92234
NAME WITHHELD	2865 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	28750 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28780 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2881 E SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2883 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	28840 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28870 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28950 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	28950 LANDAU BLV	CATHEDRAL CY, CA	92234
NAME WITHHELD	2898 N SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	2899 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2900 VISTA CHINO	PALM SPRINGS, CA	92262
NAME WITHHELD	29020 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2904 LAKERIDGE DR	LOS ANGELES, CA	90068
NAME WITHHELD	2904 PAPER LN	NEWPORT BEACH, CA	92660
NAME WITHHELD	29040 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29060 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29100 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29120 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29120 LANDAU BLV	CATHEDRAL CY, CA	92234
NAME WITHHELD	29140 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29160 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29180 LANDUA BLV	CATHEDRAL CY, CA	92234
NAME WITHHELD	2920 CALLE ARANDAS	PALM SPRINGS, CA	92264
NAME WITHHELD	29200 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29200 LANDAU BLV	CATHEDRAL CY, CA	92234
NAME WITHHELD	29220 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2923 N BISKRA	PALM SPRINGS, CA	92262
NAME WITHHELD	29240 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2925 ROYAL PALM DR	NORTH PORT, FL	34288
NAME WITHHELD	2925 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	29276 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29300 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2933 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	29330 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2934 1/2 N BEVERLY GLEN	LOS ANGELES, CA	90077
NAME WITHHELD	29350 LANDAU BLV	CATHEDRAL CY, CA	92234
NAME WITHHELD	29360 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29372 DOVE RD	CUSHING, MN	56443

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RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	2940 BALLESTEROS	TUSTIN, CA	92782
NAME WITHHELD	29400 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29400 LANDAU	CATHEDRAL CY, CA	92234
NAME WITHHELD	29490 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	295 E SAN RAFAEL RD	PALM SPRINGS, CA	92262
NAME WITHHELD	2950 N SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	29500 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29520 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29540 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2955 BISKRD RD	PALM SPRINGS, CA	92262
NAME WITHHELD	29570 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29600 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29620 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29640 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2965 N PUERTA DEL SOL	PALM SPRINGS, CA	92262
NAME WITHHELD	29660 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29660 LANDAU BLV	CATHEDRAL CY, CA	92234
NAME WITHHELD	29680 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29700 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29720 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29740 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29760 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29780 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2979 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	29800 AVENIDA LA VISTA	CATHEDRAL CITY, CA	92234
NAME WITHHELD	29830 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	29860 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	2993 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	29950 AVENIDA LA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	30 HUNTER LN	CAMP HILL, PA	17011
NAME WITHHELD	300 E MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	300 N INDIAN CANYON	PALM SPRINGS, CA	92262
NAME WITHHELD	300 RADIOSHACK CIR	FORT WORTH, TX	76102
NAME WITHHELD	30010 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	30030 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	3005 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	3005 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	30060 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	30090 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	301 E COLORADO BLV 9TH FL	PASADENA, CA	91101
NAME WITHHELD	30120 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	30140 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	30170 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	30180 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	30188 MORNING VIEW DR	MALIBU, CA	90265
NAME WITHHELD	3020 E VISTA CHINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	3020 N REDWOOD DR	PALM SPRINGS, CA	92262
NAME WITHHELD	30210 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	3023 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	30255 ARBOL REAL	THOUSAND PALMS, CA	92276
NAME WITHHELD	30260 TRAVIS AVE	CATHEDRAL CY, CA	92234

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	30290 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	303 E SAN RAFAEL RD	PALM SPRINGS, CA	92262
NAME WITHHELD	3030 N SEQUOIA DR	PALM SPRINGS, CA	92262
NAME WITHHELD	30300 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	3035 N REDWOOD DR	PALM SPRINGS, CA	92262
NAME WITHHELD	30350 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	3037 28TH ST	SAN DIEGO, CA	92104
NAME WITHHELD	30370 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	304 SUN VALLEY DR SE	CALGARY AB CANADA	T2X 2V5
NAME WITHHELD	3040 N REDWOOD DR	PALM SPRINGS, CA	92262
NAME WITHHELD	30410 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	30440 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	3045 N REDWOOD DR	PALM SPRINGS, CA	92262
NAME WITHHELD	30480 TRAVIS AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	30490 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	305 E 9TH ST	UPLAND, CA	91786
NAME WITHHELD	305 N LONDON PL	ANAHEIM, CA	92806
NAME WITHHELD	3050 N SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	30535 SEMINOLE CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	30550 SEMINOLE CT	CATHEDRAL CITY, CA	92234
NAME WITHHELD	30550 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	3059 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	306 15270 17TH AVE	SURREY BC CANADA	V4A 1T9
NAME WITHHELD	30611 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30614 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30640 BRENDA WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30640 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	30643 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30644 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30662 BRENDA WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30667 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30668 ARBOL REAL	THOUSAND PALMS, CA	92276
NAME WITHHELD	30668 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30678 BRENDA WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30683 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30698 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30699 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30704 BRENDA WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30705 AVD DEL YERMO	CATHEDRAL CITY, CA	92234
NAME WITHHELD	30706 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30707 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30720 BRENDA WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30721 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30786 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30798 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	3080 N SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	30802 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30820 AVENIDA DEL YERMO	CATHEDRAL CY, CA	92234
NAME WITHHELD	30820 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	30844 W SAN GABRIEL CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	3085 SAN JUAN RD	PALM SPRINGS, CA	92262

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	30865 SUSAN DR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	3087 N BISKRA RD	PALM SPRINGS, CA	92262
NAME WITHHELD	30875 DATE PALM DR, #1	CATHEDRAL CY, CA	92234
NAME WITHHELD	30875 DATE PALM DR STE C	CATHEDRAL CITY, CA	92234
NAME WITHHELD	30877 DATE PALM DR, #B1	CATHEDRAL CY, CA	92234
NAME WITHHELD	30888 PEGGY WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	30910 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	31 PARIS WAY	RANCHO MIRAGE, CA	92270
NAME WITHHELD	31020 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	31040 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31050 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31085 SAN YSIDRO AVE	CATHEDRAL CITY, CA	92234
NAME WITHHELD	3110 MAIN ST STE 200	SANTA MONICA, CA	90405
NAME WITHHELD	31100 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	3111 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	3111 SOMBREADO	SAN CLEMENTE, CA	92673
NAME WITHHELD	3111 W ALLEGHENY AVE	PHILADELPHIA, PA	19132
NAME WITHHELD	31110 VIA LAS PALMAS	1000 PALMS, CA	92276
NAME WITHHELD	31130 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	3115 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	31150 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31160 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31163 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31170 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	3118 E VISTA CHINO	PALM SPRINGS, CA	92262
NAME WITHHELD	31180 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31180 SKY BLUE WATER TRL	CATHEDRAL CY, CA	92234
NAME WITHHELD	31190 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31190 DATE PALM	CATHEDRAL CY, CA	92234
NAME WITHHELD	31200 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31211 AVD LA GAVIOTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	31220 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	31234 FAJA CABALLERO	CATHEDRAL CITY, CA	92234
NAME WITHHELD	31250 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31260 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31266 FAJA CABALLERO	CATHEDRAL CY, CA	92234
NAME WITHHELD	31270 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31275 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31298 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31300 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31305 DESERT MOON RD	THOUSAND PALMS, CA	92276
NAME WITHHELD	31320 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31320 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	3133 7TH ST	RIVERSIDE, CA	92507
NAME WITHHELD	31340 DATE PALM DR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	3135 CRELA ST	BONITA, CA	91902
NAME WITHHELD	3136 HERNSTEAD CT	WEST COVINA, CA	91791
NAME WITHHELD	31360 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31369 VIA PARED	THOUSAND PLMS, CA	92276
NAME WITHHELD	31375 FAJA CABALLERO	CATHEDRAL CY, CA	92234
NAME WITHHELD	3139 HUULA DR	OCEANSIDE, CA	92054

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	3140 E VISTA CHINO	PALM SPRINGS, CA	92262
NAME WITHHELD	31400 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31430 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	31450 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	31465 AVENIDA JUAREZ	CATHEDRAL CITY, CA	92234
NAME WITHHELD	31490 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	31500 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	3152 STARR RD	PALM SPRINGS, CA	92262
NAME WITHHELD	31540 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31547 WHISPERING PALMS	CATHEDRAL CY, CA	92234
NAME WITHHELD	3155 HADDINGTON DR	LOS ANGELES, CA	90064
NAME WITHHELD	31600 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31600 NEUMA DR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	31613 CALLE AMIGOS	CATHEDRAL CY, CA	92234
NAME WITHHELD	31626 AVENIDA ALVERA	CATHEDRAL CY, CA	92234
NAME WITHHELD	31647 CALLE AMIGOS	CATHEDRAL CY, CA	92234
NAME WITHHELD	31695 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	31722 CALLE AMIGOS	CATHEDRAL CY, CA	92234
NAME WITHHELD	31760 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	31795 AVENIDA DEL YERMO	CATHEDRAL CY, CA	92234
NAME WITHHELD	3180 E VISTA CHINO	PALM SPRINGS, CA	92262
NAME WITHHELD	31825 AVE DEL YERMO	CATHEDRAL CY, CA	92234
NAME WITHHELD	31855 DATE PALM DR, #1	CATHEDRAL CY, CA	92234
NAME WITHHELD	31855 DATE PALM DR NO 12	CATHEDRAL CITY, CA	92234
NAME WITHHELD	31855 DATE PALM DR STE 3	CATHEDRAL CITY, CA	92234
NAME WITHHELD	31878 DEL OBISPO NO 118	SAN JUAN CAPO, CA	92675
NAME WITHHELD	31913 TAYLOR RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	3195 SAN JUAN RD	PALM SPRINGS, CA	92262
NAME WITHHELD	31950 VIA LAS PALMAS	THOUSAND PLMS, CA	92276
NAME WITHHELD	3200 E TAHQUITE MCCALLUM	PALM SPRINGS, CA	92262
NAME WITHHELD	3200 E TAHQUITZ CANYON WY	PALM SPRINGS, CA	92262
NAME WITHHELD	3200 PRINCETON WAY	ANCHORAGE, AK	99508
NAME WITHHELD	3200 TAHQUITZ CANYON WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	32003 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32007 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32011 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32017 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32020 OAKLAND AVE	THOUSAND PLMS, CA	92276
NAME WITHHELD	32020 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32021 SAN MIQUELITO DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32031 SAN MIGUELITO	THOUSAND PLMS, CA	92276
NAME WITHHELD	32035 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32040 SAN MIGUELITO DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32041 SAN MIGUELITO DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32055 MONTEREY AVE	THOUSAND PLMS, CA	92276
NAME WITHHELD	32060 SAN MIGUELITO DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32080 SAN MIQUELITO DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32080 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32081 SAUCON VALLEY ST	THOUSAND PLMS, CA	92276
NAME WITHHELD	32087 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32090 RANCHO VISTA NO G	CATHEDRAL CITY, CA	92234

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	32091 CHIRICAHUA DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32100 SAUCON VALLEY ST	THOUSAND PLMS, CA	92276
NAME WITHHELD	32100 WELLS FARGO RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	32100 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32101 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32120 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32123 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32127 WELLS FARGO RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	32129 PAINTED ROCK CIR	THOUSAND PALMS, CA	92276
NAME WITHHELD	32130 PAINTED ROCK CIR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32137 CHIRICAHUA DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	3214 W 168TH ST	TORRANCE, CA	90504
NAME WITHHELD	32140 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32145 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32149 PAINTED ROCK CIR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32150 PAINTED ROCK CIR	THOUSAND PLMS, CA	92276
NAME WITHHELD	322 DESERT WILLOW CIR	PALM SPRINGS, CA	92262
NAME WITHHELD	32201 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32210 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32215 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32235 DATE PALM DR NO 104	CATHEDRAL CY, CA	92234
NAME WITHHELD	32261 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32275 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	3231 SANDSPRING DR	PALM SPRINGS, CA	92262
NAME WITHHELD	3232 N MOUNTAIN SHADOW DR	PALM SPRINGS, CA	92262
NAME WITHHELD	32320 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	3233 N MOUNTAIN SHADOW DR	PALM SPRINGS, CA	92262
NAME WITHHELD	32363 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32366 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32395 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	3240 AVD SAN GABRIEL	PALM SPRINGS, CA	92262
NAME WITHHELD	3240 SAND SPRING DR	PALM SPRINGS, CA	92262
NAME WITHHELD	32401 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32402 RANCHO VISTA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	3242 N MOUNTAIN SHADOW DR	PALM SPRINGS, CA	92262
NAME WITHHELD	32420 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32475 DATE PALM DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	325 HARPER LOOP	GRANTS PASS, OR	97527
NAME WITHHELD	3252 MICA DR	PALM SPRINGS, CA	92262
NAME WITHHELD	32523 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32530 RANCHO VISTA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32530 RANCHO VISTA DR A	CATHEDRAL CY, CA	92234
NAME WITHHELD	32589 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32590 MESA PL	THOUSAND PLMS, CA	92276
NAME WITHHELD	32601 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32611 DATE PALM DR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	32613 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32635 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32657 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32662 TUCSON PL	THOUSAND PLMS, CA	92276
NAME WITHHELD	32691 CHIRICAHUA DR	THOUSAND PALMS, CA	92276

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RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	32691 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	327 S INVERNESS DR	ENGLEWOOD, CO	80112
NAME WITHHELD	32700 DESERT MOON DR	THOUSAND PALMS, CA	92276
NAME WITHHELD	32705 CIELO VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	3272 MICA DR	PALM SPRINGS, CA	92262
NAME WITHHELD	32725 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32747 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32760 BOCA RATON PL	THOUSAND PLMS, CA	92276
NAME WITHHELD	32762 BOCA RATON PL	THOUSAND PLMS, CA	92276
NAME WITHHELD	32769 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32775 BOCA RATON PL	THOUSAND PLMS, CA	92276
NAME WITHHELD	32781 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32802 WISHING WELL TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32803 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32806 RANCHO VISTA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	328145 WHISPERING PALMS	CATHEDRAL CY, CA	92234
NAME WITHHELD	32830 AURORA VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32830 CIELO VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32830 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32851 SHIFTING SANDS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32860 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32870 MONTE VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	32875 AURORA VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32875 CANYON VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32875 MONTE VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32876 CANYON VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32879 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	32880 NAVAJO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32880 PUEBLO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32881 CATHEDRAL CANYON DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32881 PUEBLO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32889 SHIFTING SANDS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32889 SKY BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32889 WHISPERING PALMS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32890 SKY BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32890 WHISPERING PALMS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32895 CIELO VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32898 RANCHO VISTA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32900 CATHEDRAL CANYON DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32900 MONTE VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32904 NAVAJO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32904 PUEBLO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32905 AURORA VISTA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32905 CANYON VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32905 CIELO VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32905 PUEBLO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32905 SKY BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	3292 MICA DR	PALM SPRINGS, CA	92262
NAME WITHHELD	32920 CANYON VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32920 MONTE VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32920 SHIFTING SANDS TR	CATHEDRAL CY, CA	92234

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RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	32920 WISHING WELL TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32925 AURORA VISTA	CATHEDRAL CY, CA	92234
NAME WITHHELD	32925 CANYON VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32925 WISHING WELL TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32929 DESERT VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32929 NAVAJO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32929 PUEBLO TRAIL	CATHEDRAL CY, CA	92234
NAME WITHHELD	32929 RANCHO VISTA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32929 SHIFTING SANDS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32930 SKY BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32930 WHISPERING PALMS TR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	32945 DESERT VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32950 AURORA VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	32950 MONTE VISTA RD, #C	CATHEDRAL CY, CA	92234
NAME WITHHELD	32956 PUEBLO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32957 NAVAJO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32970 SKY BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32990 CATHEDRAL CANYON DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	32993 WISHING WELL TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	330 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	33011 CAMPUS LN	CATHEDRAL CITY, CA	92233
NAME WITHHELD	33014 MORENO RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	33015 MORENO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	33020 WISHING WELL TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33021 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	33027 NAVAJO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33028 NAVAJO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33033 RANCHO VISTA DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33033 SKY BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33035 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	33040 VIA DE ANZA	CATHEDRAL CY, CA	92234
NAME WITHHELD	33045 MORENO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	33049 NAVAJO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33050 NAVAJO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33050 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	33051 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	33055 CATHEDRAL CANYON DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33061 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	33065 SHIFTING SANDS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33065 SKY BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33065 VIA DE ANZA	CATHEDRAL CY, CA	92234
NAME WITHHELD	33066 WHISPERING PALMS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33071 PUEBLO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33080 VIA DE ANZA	CATHEDRAL CY, CA	92234
NAME WITHHELD	33080 WISHING WELL TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33082 CAMPUS LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	33089 SKY BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33090 SKY BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33090 WHISPERING PALMS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33095 CATHEDRAL CANYON DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33095 PUEBLO TR	CATHEDRAL CY, CA	92234

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	331 PENNSYLVANIA AVE	SAN FRANCISCO, CA	94107
NAME WITHHELD	33100 CATHEDRAL CANYON DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33101 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	33102 CAMPUS LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	33105 CAMPUS LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	33105 WISHING WELL TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	3311 W 3RD ST BLDG 1-302	LOS ANGELES, CA	90020
NAME WITHHELD	33113 CAMPUS LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	33116 SHIFTING SANDS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33117 SHIFTING SANDS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33117 SKU BLUE WATER TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33118 SKY BLUE WATERS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33118 WHISPERING PALMS TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33121 NAVAJO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33121 WESTCHESTER DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	33122 PUEBLO TR	CATHEDRAL CY, CA	92234
NAME WITHHELD	33125 CATHEDRAL CANYON DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	3320 WONDERVIEW PLZ	HOLLYWOOD, CA	90068
NAME WITHHELD	333 E MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	333 S FARRELL DR	PALM SPRINGS, CA	92262
NAME WITHHELD	3333 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	33351 BREMERTON ST	DANA POINT, CA	92629
NAME WITHHELD	334 HERMOSA PL	PALM SPRINGS, CA	92262
NAME WITHHELD	334 W HERMOSA PL	PALM SPRINGS, CA	92262
NAME WITHHELD	3341 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	33411 NAVAJO TR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	3352 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	33580 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33581 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	3359 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	33610 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33640 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33670 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33680 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33691 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33700 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33710 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33721 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33760 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33835 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33855 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33860 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33875 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33878 DRIFTING SANDS CIR	THOUSAND PLMS, CA	92276
NAME WITHHELD	33900 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	3391 SAVANNA TRL	PALM SPRINGS, CA	92262
NAME WITHHELD	33915 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33920 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33935 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	33940 BELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	3395 N INDIAN CANYON DR	PALM SPRINGS, CA	92262

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	3395 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	34 SKOKOMISH WAY	LA CONNER, WA	98257
NAME WITHHELD	34 TOSCANA WAY E	RANCHO MIRAGE, CA	92270
NAME WITHHELD	34048 JUDY LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	3413 BRACE CANYON RD	BURBANK, CA	91504
NAME WITHHELD	3413 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3415 VISION DR	COLUMBUS, OH	43219
NAME WITHHELD	3417 MACTIBBY ST	SAN DIEGO, CA	92117
NAME WITHHELD	3420 AVENIDA FEY NORTE	PALM SPRINGS, CA	92262
NAME WITHHELD	3425 INDIAN AVE	PALM SPRINGS, CA	92262
NAME WITHHELD	3425 N INDIAN CANYON DR, #2	PALM SPRINGS, CA	92262
NAME WITHHELD	3445 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	3449 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3452 AVENIDA FEY NORTE	PALM SPRINGS, CA	92262
NAME WITHHELD	34640 EAGLE CANYON	CATHEDRAL CY, CA	92234
NAME WITHHELD	3466 PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	3467 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	347 ARBOUR LAKE WAY N W	CALGARY AB CANADA	T3G3Z8
NAME WITHHELD	3470 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	34700 VAQUERO RD	CAHTHEDRAL CITY, CA	92234
NAME WITHHELD	3475 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3476 STATEVIEW BLV	FT MILL, SC	29715
NAME WITHHELD	3480 RIDGEVIEW CIR	PALM SPRINGS, CA	92264
NAME WITHHELD	3488 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	3489 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	350 S GRAND AVE STE 43	LOS ANGELES CA	90071
NAME WITHHELD	3500 TACHEVAH NO 2A	PALM SPRINGS, CA	92262
NAME WITHHELD	3523 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	35280 BOB HOPE DR 100	RANCHO MIRAGE, CA	92270
NAME WITHHELD	35325 DATE PALM DR NO 236	CATHEDRAL CITY, CA	92234
NAME WITHHELD	3535 HARBOR BLV NO 100	COSTA MESA, CA	92626
NAME WITHHELD	3539 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3542 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	35425 SAND ROCK RD	THOUSAND PALMS, CA	92276
NAME WITHHELD	35456 SERENO LN	PALM DESERT, CA	92211
NAME WITHHELD	355 REDONDO AVE	LONG BEACH, CA	90814
NAME WITHHELD	355 S GRAND AVE STE 2900	LOS ANGELES, CA	90071
NAME WITHHELD	355 SAN RAFAEL DR	PALM SPRINGS, CA	92262
NAME WITHHELD	35688 CATHEDRAL CYN BLDG 3	CATHEDRAL CITY, CA	92234
NAME WITHHELD	3570 E LOMBARD RD	PASADENA, CA	91107
NAME WITHHELD	35751 GATEWAY DR UNT K1108	PALM DESERT, CA	92211
NAME WITHHELD	3576 AVENIDA FEY NORTE	PALM SPRINGS, CA	92262
NAME WITHHELD	3596 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3597 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	3598 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	36049 FIRETHORN DR	PALM DESERT, CA	92211
NAME WITHHELD	3608 MENTONE AVE NO 9	LOS ANGELES, CA	90034
NAME WITHHELD	36101 BOB HOPE DR NO E5	RANCHO MIRAGE, CA	92270
NAME WITHHELD	3611 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3622 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	3629 SAVANNA WAY	PALM SPRINGS, CA	92262

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	36319 ARTISAN WAY	CATHEDRAL CITY, CA	92234
NAME WITHHELD	3657 ARNICO ST	PALM SPRINGS, CA	92262
NAME WITHHELD	3663 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	3666 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	3668 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	36700 PICKFAIR ST APT 10	CATHEDRAL CITY, CA	92234
NAME WITHHELD	3676 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	3677 E PASEO BARBARA	PALM SPRINGS, CA	92262
NAME WITHHELD	3683 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	36840 SELROCCO DR	CALIMESA, CA	92320
NAME WITHHELD	36844 PALM VIEW RD	RANCHO MIRAGE, CA	92270
NAME WITHHELD	3686 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3700 E VISTA CHINO, #F/G	PALM SPRINGS, CA	92262
NAME WITHHELD	3700 E VISTA CHINO STE D	PALM SPRINGS, CA	92262
NAME WITHHELD	3701 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	37119 DAISY ST	PALMDALE, CA	93550
NAME WITHHELD	3719 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	372 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	3720 JASPER TR	PALM SPRINGS, CA	92262
NAME WITHHELD	3737 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3746 JASPER TR	PALM SPRINGS, CA	92262
NAME WITHHELD	375 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	3755 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3772 JASPER TR	PALM SPRINGS, CA	92262
NAME WITHHELD	3773 SAVANNA WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	3780 REGAL VISTA DR	SHERMAN OAKS, CA	91403
NAME WITHHELD	37964 PALO VERDE DR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	3800 E VISTA CHINO, #4	PALM SPRINGS, CA	92262
NAME WITHHELD	380917 COLUMBIA AVE	INDIO, CA	92201
NAME WITHHELD	3815 S WEST TEMPLE	SALT LAKE CITY, UT	84115
NAME WITHHELD	38180 W DESERT GREENS DR	PALM DESERT, CA	92260
NAME WITHHELD	38315 W MARACAIBO CIR	PALM SPRINGS, CA	92264
NAME WITHHELD	384 LA STRADA DR NO 25	SAN JOSE, CA	95123
NAME WITHHELD	38471 GLEN ABBEY LN	MURRIETA, CA	92562
NAME WITHHELD	38645 CLEARBROOK DR	MURRIETA, CA	92563
NAME WITHHELD	390 BRIDGE PKWY STE C	REDWOOD SHORES, CA	94065
NAME WITHHELD	391 N MAIN ST NO 301	CORONA, CA	92880
NAME WITHHELD	3912 PORTOLA DR STE 4	SANTA CRUZ, CA	95062
NAME WITHHELD	3916 RAMBLA ORIENTA	MALIBU, CA	90265
NAME WITHHELD	39431 DAPPLE CT	MURRIETA, CA	92562
NAME WITHHELD	39650 ELNA WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	397 W CHASE ST	HERNANDO, FL	34442
NAME WITHHELD	3975 EL DORADO BLVD	PALM SPRINGS, CA	92262
NAME WITHHELD	3988 GLEN TERRACE	WEST LINN, OR	97068
NAME WITHHELD	4 VIA OLAS	SAN CLEMENTE, CA	92673
NAME WITHHELD	400 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	400 VERNAL DR	ALAMO, CA	94507
NAME WITHHELD	4001 N 3RD ST NO 480	PHOENIX, AZ	85012
NAME WITHHELD	40021 SAGEWOOD DR	PALM DESERT, CA	92260
NAME WITHHELD	40069 MISSION BLVD	FREMONT, CA	94539
NAME WITHHELD	401 E SAN RAFAEL RD	PALM SPRINGS, CA	92262

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	4015 MT ALFIAN WAY	SAN DIEGO, CA	92111
NAME WITHHELD	40240 YUCCA LN	BERMUDA DUNES, CA	92203
NAME WITHHELD	4033 VIA GAVILAN	PALOS VERDES EST, CA	90274
NAME WITHHELD	4052 OHIO ST NO 3	SAN DIEGO, CA	92104
NAME WITHHELD	406 ETON DR	BURBANK, CA	91504
NAME WITHHELD	40623 BARANDA CT	PALM DESERT, CA	92260
NAME WITHHELD	408 SIERRA LEAF CIR	RENO, NV	89511
NAME WITHHELD	41 A W ETRURIA	SEATTLE, WA	98119
NAME WITHHELD	41035 CACTUS VALLEY RD	HEMET, CA	92544
NAME WITHHELD	4109 CALLE JUNO	SAN CLEMENTE, CA	92673
NAME WITHHELD	4112 JASMINE AVE	CULVER CITY, CA	90232
NAME WITHHELD	41144 MORRIS ST	INDIO, CA	92203
NAME WITHHELD	4121 S CAMPINA CT	GREEN VALLEY, AZ	85614
NAME WITHHELD	4145 9TH ST	RIVERSIDE, CA	92501
NAME WITHHELD	415 RIO VISTA DR	PALM SPRINGS, CA	92262
NAME WITHHELD	4161 PIEDMONT PKY	GREENSBORO, NC	27410
NAME WITHHELD	4173 HILLDALE RD	SAN DIEGO, CA	92116
NAME WITHHELD	41800 WASHINGTON ST	BERMUDA DUNES, CA	92203
NAME WITHHELD	420 24TH ST	MANHATTAN BEACH, CA	90266
NAME WITHHELD	4200 THE STRAND	MANHATTAN BEACH, CA	90266
NAME WITHHELD	4235 RAWLINS ST NO 16	DALLAS, TX	75219
NAME WITHHELD	428 A AVE	CORONADO, CA	92118
NAME WITHHELD	42813 OCOTILLO DR	RANCHO MIRAGE, CA	92270
NAME WITHHELD	43 VIA DEL ROSSI	RANCHO MIRAGE, CA	92270
NAME WITHHELD	43101 PORTOLA AVE NO 86	PALM DESERT, CA	92260
NAME WITHHELD	43207 JOSHUA RD	RANCHO MIRAGE, CA	92270
NAME WITHHELD	4337 MARINA CITY DR 739E	MARINA DEL REY, CA	90292
NAME WITHHELD	4341 W 60TH ST	LOS ANGELES, CA	90043
NAME WITHHELD	4351 MENTONE ST	SAN DIEGO, CA	92107
NAME WITHHELD	44200 KINGS CANYON LN	PALM DESERT, CA	92260
NAME WITHHELD	44200 SAN PASCUAL NO 14	PALM DESERT, CA	92260
NAME WITHHELD	444 S FLOWER ST 8TH FL	LOS ANGELES, CA	90071
NAME WITHHELD	445 HAMILTON AVE 8TH FL	WHITE PLAINS, NY	10601
NAME WITHHELD	4450 W 156 ST	LAWNDALE, CA	90260
NAME WITHHELD	4450 W 156TH ST	LAWNDALE, CA	90260
NAME WITHHELD	446 S ANAHEIM HILLS 182	ANAHEIM HILLS, CA	92807
NAME WITHHELD	45100 PALM ST	INDIO, CA	92201
NAME WITHHELD	4511 E SUNNY DUNES RD	PALM SPRINGS, CA	92264
NAME WITHHELD	4511 E SUNNY DUNES STE B	PALM SPRINGS, CA	92264
NAME WITHHELD	4517 VIEJA DR	SANTA BARBARA, CA	92234
NAME WITHHELD	45200 CLUB DR NO A	INDIAN WELLS, CA	92210
NAME WITHHELD	4524 LAKE WASHINGTON NE	KIRKLAND, WA	98033
NAME WITHHELD	4528 CLEVELAND AVE	SAN DIEGO, CA	92116
NAME WITHHELD	454 DE MAR DR	SACRAMENTO, CA	95831
NAME WITHHELD	4542 RUFFNER ST STE 200	SAN DIEGO, CA	92111
NAME WITHHELD	45440 VAIDYA CT	INDIAN WELLS, CA	92210
NAME WITHHELD	45445 PORTOLA AVE STE 5	PALM DESERT, CA	92260
NAME WITHHELD	4545 S MONACO ST NO 245	DENVER, CO	80237
NAME WITHHELD	45480 ABRONIA TR	PALM DESERT, CA	92260
NAME WITHHELD	45541 OASIS	INDIO, CA	92201
NAME WITHHELD	4580 UNIVERSITY AVE	SAN DIEGO, CA	92105

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	4610 NE 77TH AVE STE 128	VANCOUVER, WA	98662
NAME WITHHELD	466 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	467 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	470 CRESTVIEW DR	VERNON BC CANADA	V1B2X6
NAME WITHHELD	4725 E SUNNY DUNES RD	PALM SPRINGS, CA	92264
NAME WITHHELD	47421 HARBOUR LIGHTS LN	INDIO, CA	92201
NAME WITHHELD	4770 WOODBINE CIR	WEST BLOOMFIELD, MI	48323
NAME WITHHELD	4775 BEST CIR	SIMI VALLEY, CA	93063
NAME WITHHELD	4805 POINT ALTO ST	LA MESA, CA	91941
NAME WITHHELD	4812 E STETSON LN	ORANGE, CA	92869
NAME WITHHELD	4828 LOOP CENTRAL DR	HOUSTON, TX	77081
NAME WITHHELD	483 E VIA ESCUELA NO 713	PALM SPRINGS, CA	92262
NAME WITHHELD	4832 GLEN ABBEY WAY	BANNING, CA	92220
NAME WITHHELD	4837 ROUND TOP DR	LOS ANGELES, CA	90065
NAME WITHHELD	48373 STEWART DR	INDIO, CA	92201
NAME WITHHELD	48640 AVIA CT	INDIO, CA	92201
NAME WITHHELD	4875 BELFORT RD NO 130	JACKSONVILLE, FL	32256
NAME WITHHELD	48881 ANASTACIA CT	INDIO, CA	92201
NAME WITHHELD	49 CALLE DEL NORTE	RANCHO MIRAGE, CA	92270
NAME WITHHELD	4901 EL CAMINO REAL	CARLSBAD, CA	92008
NAME WITHHELD	49120 EISENHOWER DR	LA QUINTA, CA	92253
NAME WITHHELD	493 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	4951 VARNA AVE	SHERMAN OAKS, CA	91423
NAME WITHHELD	49859 PACINO ST	INDIO, CA	92201
NAME WITHHELD	5 PLATINUM CIR	LADERA RANCH, CA	92694
NAME WITHHELD	5 VIA SANTA VELERA	RANCHO MIRAGE, CA	92270
NAME WITHHELD	501 AMHURST DR	BURBANK, CA	91504
NAME WITHHELD	502 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	502 PICO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	5022 REYNARD AVE	LA CRESCENTA, CA	91214
NAME WITHHELD	505 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	505 N CALLE MARCOS	PALM SPRINGS, CA	92262
NAME WITHHELD	5084 FALLHAVEN LN	LA CANADA, CA	91011
NAME WITHHELD	509 DAHLIA	CORONA DEL MAR, CA	92625
NAME WITHHELD	509 N LANE	ANCHORAGE, AK	99508
NAME WITHHELD	51160 OSKAR LN	MORONGO VALLEY, CA	92256
NAME WITHHELD	5142 WARNER AVE NO 103	HUNTINGTON BEACH, CA	92649
NAME WITHHELD	515 S CALLE SANTA ROSA	PALM SPRINGS, CA	92264
NAME WITHHELD	5155 MONROE AVE NO 121	INDIO, CA	92201
NAME WITHHELD	5177 PICCADILLY CIR	WESTMINSTER, CA	92683
NAME WITHHELD	52 SAN SABASTION	RANCHO MIRAGE, CA	92270
NAME WITHHELD	520 OLD RANCH RD	SEAL BEACH, CA	90740
NAME WITHHELD	5221 N ROSEMEAD BLV NO F	SAN GABRIEL, CA	91776
NAME WITHHELD	5222 STRATFORD AVE	WESTMINSTER, CA	92683
NAME WITHHELD	52271 ELDERBERRY LN	LA PINE, OR	97739
NAME WITHHELD	523 ROBERTA AVE	WINNIPEG MB CANADA	R2K 0K9
NAME WITHHELD	52335 CALLE AVILA	COACHELLA, CA	92236
NAME WITHHELD	5255 ZELZAH AVE NO 102	ENCINO, CA	91316
NAME WITHHELD	526 VIA ASSISI	CATHEDRAL CY, CA	92234
NAME WITHHELD	5357 HERMITAGE AVE	VALLEY VILLAGE, CA	91607
NAME WITHHELD	5372 BECK CIR	HUNTINGTON BEACH, CA	92649

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	54 TAVA TER	CHICO, CA	95973
NAME WITHHELD	5415 E LA PALMA AVE	ANAHEIM, CA	92807
NAME WITHHELD	55 MARBELLA	RANCHO MIRAGE, CA	92270
NAME WITHHELD	550 S HOPE ST NO 2600	LOS ANGELES, CA	90071
NAME WITHHELD	5501 BEGONIA DR	PISCATAWAY, NJ	8854
NAME WITHHELD	5504 ELECTRIC AVE	SAN BERNARDINO, CA	92407
NAME WITHHELD	5511 W 62ND ST	LOS ANGELES, CA	90056
NAME WITHHELD	555 S HOPE ST NO 2600	LOS ANGELES, CA	90071
NAME WITHHELD	555 S SUNRISE WAY STE 219	PALM SPRINGS, CA	92262
NAME WITHHELD	5555 DEL MONTE DR UNT 303	HOUSTON, TX	77056
NAME WITHHELD	5565 S BARLEY CT	GILBERT, AZ	85297
NAME WITHHELD	5580 CAMINO DE BRYAN	YORBA LINDA, CA	92687
NAME WITHHELD	559 S PALM CANYON DR	PALM SPRINGS, CA	92264
NAME WITHHELD	5610 EMERALD ST	ALTA LOMA, CA	91701
NAME WITHHELD	5621 BRADD WAY	SACRAMENTO, CA	95822
NAME WITHHELD	5694 MISSION CENTER 421	SAN DIEGO, CA	92108
NAME WITHHELD	5725 CANTERBURY DR	CULVER CITY, CA	90230
NAME WITHHELD	5827 ROGENE ST	LONG BEACH, CA	90815
NAME WITHHELD	58390 BONANZA DR	YUCCA VALLEY, CA	92284
NAME WITHHELD	59 ORCHARD	IRVINE, CA	92720
NAME WITHHELD	594 MOLINO RD	PALM SPRINGS, CA	92262
NAME WITHHELD	6 CHOPIN CT	RANCHO MIRAGE, CA	92270
NAME WITHHELD	6 SINGLETREE LN	ROLLING HILLS EST, CA	90274
NAME WITHHELD	600 N ARROWHEAD STE 212	SAN BERNARDINO, CA	92401
NAME WITHHELD	600 NE 108TH AVE NO 1040	BELLEVUE, WA	98004
NAME WITHHELD	600 W CHICAGO AVE STE 570	CHICAGO, IL	60610
NAME WITHHELD	600 W CHICAGO AVE STE 750	CHICAGO, IL	60610
NAME WITHHELD	6006 32ND NE	SEATTLE, WA	98107
NAME WITHHELD	6012 FRIENDS AVE	WHITTIER, CA	90601
NAME WITHHELD	611 S PALM CANYON DR	PALM SPRINGS, CA	92264
NAME WITHHELD	611 S PALM CYN DR NO 7	PALM SPRINGS, CA	92264
NAME WITHHELD	61150 SCENIC DR	MTN CENTER, CA	92561
NAME WITHHELD	621 KNOB HILL	REDONDO BEACH, CA	90277
NAME WITHHELD	6232 SHIELDS DR NO B	HUNTINGTON BEACH, CA	92647
NAME WITHHELD	631 LOCHLEVEN	GLENDORA, CA	91741
NAME WITHHELD	6372 W 82ND ST	LOS ANGELES, CA	90045
NAME WITHHELD	640 CAMELLIA ST	PALM SPRINGS, CA	92262
NAME WITHHELD	640 N TUSTIN AVE	SANTA ANA, CA	92705
NAME WITHHELD	646 S EL CIELO	PALM SPRINGS, CA	92262
NAME WITHHELD	655 N PALM CANYON DR	PALM SPRINGS, CA	92262
NAME WITHHELD	655 N PALM CANYON STE 211	PALM SPRINGS, CA	92262
NAME WITHHELD	659 TUOLOMNE DR	WALNUT, CA	91789
NAME WITHHELD	662 W PHEASANT DR	LOS ANGELES, CA	90065
NAME WITHHELD	67105 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67120 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67130 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67135 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67140 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67145 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67155 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67160 PEINETA RD	CATHEDRAL CY, CA	92234

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	67165 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67170 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67175 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67180 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67190 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67195 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67200 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67240 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67245 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67255 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67260 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67265 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67270 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67285 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67330 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67350 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67360 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67370 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67375 TAMARA RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	67380 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67400 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67430 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67435 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67440 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67445 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67450 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67455 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67490 E VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67495 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67520 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67525 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67530 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67545 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67560 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67565 PEINTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67580 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67585 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67600 RIO VISTA DR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	67600 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67603 30TH AVE	CATHEDRAL CITY, CA	92234
NAME WITHHELD	67610 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67615 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67620 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67630 E VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67655 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67660 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67665 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67675 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67685 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67690 VISTA CHINO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67695 PEINETA RD	CATHEDRAL CY, CA	92234

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	677 N SUNRISE WAY	PALM SPRINGS, CA	92262
NAME WITHHELD	67700 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67705 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67715 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67725 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67730 E VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67735 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67740 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67745 PIENETA RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	67750 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67755 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67760 VISTA CHINO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67765 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67770 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67775 PEINETA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67800 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67819 PEGGY CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	67820 JANE LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67822 PEGGY CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	67827 PEGGY CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	67831 PAMELA LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67833 MARILYN CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	67835 30TH AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	67842 JANE LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67842 REED CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	67845 REED CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	67852 REED CIR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	67852 REED CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	67853 PAMELA LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67856 VEGA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67857 30TH AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	67860 MCCALLUM WAY	CATHEDRAL CY, CA	92234
NAME WITHHELD	67860 PAMELA LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67861 JANE LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67864 PEGGY CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	67868 VIA ESTRELLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	67870 PAMELA LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67871 JANE LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67872 REED CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	67873 30TH AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	67874 CALLE CAYUGA	CATHEDRAL CY, CA	92234
NAME WITHHELD	67875 PAMELA LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67875 PEGGY CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	67875 VIA SEGURO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67877 MARILYN CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	67878 VEGA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67880 PAMELA LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67882 PEGGY CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	67883 PEGGY CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	67883 VIA ESTRELLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	67884 MCCALLUM WAY	CATHEDRAL CY, CA	92234

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OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	67885 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	67886 JANE LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	67888 MARILYN CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	67890 PEGGY CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	67890 VEGA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67892 REED CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	67895 30TH AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	67896 VIA ESTRELLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	67897 CALLE AGATE	CATHEDRAL CY, CA	92234
NAME WITHHELD	67897 ELIZABETH RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67898 CALLE CAYUGA	CATHEDRAL CY, CA	92234
NAME WITHHELD	67898 VIA SEGURO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67899 MARILYN CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	67951 VEGA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67963 VEGA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67967 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67968 VIA ESTRELLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	67973 VIA ESTRELLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	67974 VIA ESTRELLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	67975 VIA SEGURO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67979 VEGA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	67981 VIA ESTRELLA	CATHEDRAL CY, CA	92234
NAME WITHHELD	67985 CANCHA CHEYENNE	CATHEDRAL CY, CA	92234
NAME WITHHELD	67986 CALLE AMIGOS	CATHEDRAL CY, CA	92234
NAME WITHHELD	67987 CANCHA CHEYENNE	CATHEDRAL CY, CA	92234
NAME WITHHELD	67988 CANCHA CHEYENNE	CATHEDRAL CY, CA	92234
NAME WITHHELD	67988 VIA SEGURO	CATHEDRAL CY, CA	92234
NAME WITHHELD	67991 VEGA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68 CALLE RIVERO	RANCHO MIRAGE, CA	92270
NAME WITHHELD	68002 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68015 EMPALMO RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68020 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68025 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68035 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68040 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68050 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68050 ESPADA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68051 E RAMON RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68051 RAMON RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68060 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68065 E VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68070 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68070 VISTA DEL VALLE	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68075 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68080 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68085 E VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68090 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68105 TACHEVAH DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	68110 DURANGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68110 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68120 ENCINITAS	CATHEDRAL CY, CA	92234

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OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	68125 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68135 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68140 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68145 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68150 BELLA VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68150 ENCINITAS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68165 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68165 VISTA CHINO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68185 BERROS CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	68195 BERROS CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	682 BROOKLINE PL	FULLERTON, CA	90603
NAME WITHHELD	68205 BERROS CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	68215 BERROS CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	68215 MARINA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68220 LOS GATOS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68270 MARINA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68272 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68275 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68280 LOS GATOS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68280 MARINA RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68284 SANTIAGO RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68285 RISUENO RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68290 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68295 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68300 RISUENO RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68302 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68305 BELLA VISTA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68311 PASEO REAL RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68316 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68319 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68324 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68338 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68365 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68369 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68374 KIELEY RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68385 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68392 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68397 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68409 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68416 PEREZ RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68420 MOONLIGHT DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	68420 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68422 CALLE TOLEDO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68425 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68431 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68434 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68445 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68453 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68458 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68477 SANTIGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68480 MADRID RD	CATHEDRAL CITY, CA	92234

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RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	68496 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68499 SANTIAGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68537 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68554 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68555 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68560 SAN FELIPE RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68561 TERRACE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68570 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68575 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68580 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68597 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68603 PASADA RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68609 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68610 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68618 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68630 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68632 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68633 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68635 CONCEPCION RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68641 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68650 H ST	CATHEDRAL CITY, CA	92262
NAME WITHHELD	68650 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68659 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68660 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68665 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68665 VISTA CHINO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68667 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68670 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68670 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68675 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68680 DIANH SHORE DR 70A	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68681 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68685 33RD AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	68695 LA MEDERA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68695 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68700 AVE LALO GUERRERO	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68720 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68725 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68731 33RD AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	68740 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68745 VISTA CHINO AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	68760 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68765 33RD AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	68770 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68775 CHINO VISTA	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68785 33RD AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	68790 CEDAR RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68800 SAN FELIPE RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68815 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68825 33RD AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	68825 VISTA CHINO	CATHEDRAL CY, CA	92234

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	68845 TACHEVAH DR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68845 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68855 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68870 33RD AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	68870 PANORAMA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68875 PANORAMA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68875 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68880 LOS GATOS RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68880 PANORAMA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68885 LOS GATOS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68900 JARANA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68900 LOZANO CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	68900 MINERVA	CATHEDRAL CY, CA	92234
NAME WITHHELD	68900 MINERVA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68901 33RD AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	68905 JARANA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68905 LOZANO CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	68905 VISTA CHINO	CATHEDRAL CY, CA	92234
NAME WITHHELD	68910 JARANA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68910 LOZANO CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	68915 JARANA RD	CATHEDRAL CITY, CA	92234
NAME WITHHELD	68915 TACHEVAH DR	CATHEDRAL CY, CA	92234
NAME WITHHELD	68930 CONCEPCION RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68930 MINERVA LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	68930 RISUENO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68936 ADELINA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68940 CONCEPCION RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68940 TORTUGA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68944 HERMOSILLO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68944 RISUENO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68945 CONCEPCION RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68945 MINERVA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68945 TORTUGA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68950 ADELINA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68951 RISUENO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68952 HERMOSILLO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68954 DURANGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68955 ADELINA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68955 CONCEPCION RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68955 MINERVA RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68955 RAMON RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68964 DURANGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68965 DURANGO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	68967 RISUENO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	6900 BEATRICE DR	KALAMAZOO, MI	49009
NAME WITHHELD	69015 SAN HELENA AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	69020 ALISO RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	69020 SAN HELENA AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	69020 SAN SUSANNA AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	69025 GARNER AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	69025 SAN HELENA AVE	CATHEDRAL CY, CA	92234

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	69040 SAN HELENA AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	69115 RAMON RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	69115 RAMON RD F1	CATHEDRAL CITY, CA	92234
NAME WITHHELD	69190 TAMALA AVE	CATHEDRAL CY, CA	92234
NAME WITHHELD	69195 NILDA	CATHEDRAL CY, CA	92234
NAME WITHHELD	692 ROXBURY DR	PALM SPRINGS, CA	92264
NAME WITHHELD	69290 ARCADIAN CT	CATHEDRAL CY, CA	92234
NAME WITHHELD	69290 CYPRESS RD	CATHEDRAL CY, CA	92234
NAME WITHHELD	69622 WILLOW LN	CATHEDRAL CITY, CA	92234
NAME WITHHELD	69622 WILLOW LN	CATHEDRAL CY, CA	92234
NAME WITHHELD	697 LAS VEGAS RD	PALM SPRINGS, CA	92264
NAME WITHHELD	69786 CANCHA CHEYENNE	CATHEDRAL CY, CA	92234
NAME WITHHELD	69852 WILLOW LN	CATHEDRAL CITY, CA	92234
NAME WITHHELD	69969 PALOMA DEL SUR	CATHEDRAL CITY, CA	92234
NAME WITHHELD	7 PLATO CT	PLEASANT HILL, CA	94523
NAME WITHHELD	701 E PALM CANYON DR	PALM SPRINGS, CA	92264
NAME WITHHELD	703 PIER AVE NO 178	HERMOSA BEACH, CA	90254
NAME WITHHELD	70506 N OAKLEY AVE	CHICAGO, IL	60645
NAME WITHHELD	707 N PALM CANYON DR	PALM SPRINGS, CA	92262
NAME WITHHELD	7122 SEAWIND DR	LONG BEACH, CA	90803
NAME WITHHELD	7135 HOLLYWOOD BLV 709	LOS ANGELES, CA	90046
NAME WITHHELD	7138 MONIQUE AVE	PRUNEDALE, CA	93907
NAME WITHHELD	71418 SAN GORGONIO RD	RANCHO MIRAGE, CA	92270
NAME WITHHELD	71780 SAN JACINTO DR I-3	RANCHO MIRAGE, CA	92270
NAME WITHHELD	721 TEXCOCO ST	MONTEBELLO, CA	90640
NAME WITHHELD	72152 NORTHSHORE ST STE G	THOUSAND PALMS, CA	92276
NAME WITHHELD	7219551 66TH AVE	SURREY BC CANADA	V4N 0Z5
NAME WITHHELD	7221 E NANCE ST	MESA, AZ	85270
NAME WITHHELD	72290 QUARRY TR	THOUSAND PLMS, CA	92276
NAME WITHHELD	72295 MANUFACTURING RD	THOUSAND PALMS, CA	92276
NAME WITHHELD	7231 BOULDER AVE NO 536	HIGHLAND, CA	92346
NAME WITHHELD	72375 VIA VAIL	RANCHO MIRAGE, CA	92270
NAME WITHHELD	724 N STEPHENS	FULLERTON, CA	92633
NAME WITHHELD	7255 BAYMEADOWS WAY	JACKSONVILLE, FL	32256
NAME WITHHELD	72600 FRED WARING NO 3310	PALM DESERT, CA	92260
NAME WITHHELD	72625 HIGHWAY 11 STE 102	PALM DESERT, CA	92260
NAME WITHHELD	7266 EDINGER AVE	HUNTINGTON BEACH, CA	92647
NAME WITHHELD	7266 EDINGER AVE STE L	HUNTINGTON BEACH, CA	92647
NAME WITHHELD	72677 FRANK SINATRA DR	RANCHO MIRAGE, CA	92270
NAME WITHHELD	72934 HASKELL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	72941 DATIL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	72949 DATIL RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	73008 WILLOW ST	PALM DESERT, CA	92260
NAME WITHHELD	73033 QUIVIRA ST	THOUSAND PLMS, CA	92276
NAME WITHHELD	73040 DEL NORTE WY	THOUSAND PALMS, CA	92276
NAME WITHHELD	73069 IRONWOOD ST	PALM DESERT, CA	92260
NAME WITHHELD	73070 RAMON RD	THOUSAND PALMS, CA	92276
NAME WITHHELD	73070 RAMON RD	THOUSAND PLMS, CA	92276
NAME WITHHELD	73140 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73141 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73150 COLONIAL DR	THOUSAND PLMS, CA	92276

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	73151 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73170 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73190 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73200 WYCONDA ST	THOUSAND PLMS, CA	92276
NAME WITHHELD	73201 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73210 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73231 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73240 WYCONDA ST	THOUSAND PLMS, CA	92276
NAME WITHHELD	73241 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73241 HWY 111 STE 1A	PALM DESERT, CA	92260
NAME WITHHELD	73250 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73251 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73260 WYCONDA ST	THOUSAND PLMS, CA	92276
NAME WITHHELD	73270 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73271 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73280 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73280 WYCONDA ST	THOUSAND PLMS, CA	92276
NAME WITHHELD	73290 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73291 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73301 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73360 BROADMOOR DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73401 PINE VALLEY DR	THOUSAND PALMS, CA	92276
NAME WITHHELD	73410 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73430 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73450 COLONIAL DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73450 PINE VALLEY DR	THOUSAND PALMS, CA	92276
NAME WITHHELD	73510 FRED WARING DR	PALM DESERT, CA	92260
NAME WITHHELD	73520 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73541 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73542 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73564 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73586 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73619 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73640 N PACHETA SQ	THOUSAND PLMS, CA	92276
NAME WITHHELD	73650 PACHETA SQ	THOUSAND PLMS, CA	92276
NAME WITHHELD	73654 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73660 N PACHETA SQ	THOUSAND PLMS, CA	92276
NAME WITHHELD	73670 N PACHETA SQ	THOUSAND PLMS, CA	92276
NAME WITHHELD	73676 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73680 N PACHETA SQ	THOUSAND PLMS, CA	92276
NAME WITHHELD	73685 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73690 N PACHETA SQ	THOUSAND PLMS, CA	92276
NAME WITHHELD	737 THIRD AVE STE H	CHULA VISTA, CA	91910
NAME WITHHELD	73700 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73700 PACHETA SQ	THOUSAND PLMS, CA	92276
NAME WITHHELD	73701 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73710 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73710 N PACHETA SQ	THOUSAND PLMS, CA	92276
NAME WITHHELD	73730 BLACK EAGLE DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73932 ELIZABETH DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73944 ELIZABETH DR	THOUSAND PLMS, CA	92276

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	73955 BOCA CHICA TRL	THOUSAND PALMS, CA	92276
NAME WITHHELD	73961 WHITE SANDS DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73966 ELIZABETH DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73979 BOCA CHICA TR	THOUSAND PALMS, CA	92276
NAME WITHHELD	73981 WHITE SANDS DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	73991 WHITE SANDS DR	THOUSAND PLMS, CA	92276
NAME WITHHELD	74 BUENA VISTA	BENICIA, CA	94510
NAME WITHHELD	74 S SUTTON PL	PALM DESERT, CA	92211
NAME WITHHELD	74151 DESERT STAR BLV	PALM DESERT, CA	92260
NAME WITHHELD	746 PROSPECT DR	GLENDALE, CA	91205
NAME WITHHELD	74691 SWEET WELL RD	THOUSAND PALMS, CA	92276
NAME WITHHELD	7485 NEW HORIZON BLDG 3	FREDERICK, MD	21703
NAME WITHHELD	7490 PALOMAR AVE	YUCCA VALLEY, CA	92284
NAME WITHHELD	74900 HIGHWAY 111 NO 120	INDIAN WELLS, CA	92210
NAME WITHHELD	74939 HIGHWAY 111 STE D 2	INDIAN WELLS, CA	92210
NAME WITHHELD	750 S FIRCROFT	COVINA, CA	91723
NAME WITHHELD	754 VIOLETA	PALM SPRINGS, CA	92262
NAME WITHHELD	75520 PAINTED DESERT DR	INDIAN WELLS, CA	92210
NAME WITHHELD	75651 CHUCKAWALLA RD	THOUSAND PALMS, CA	92276
NAME WITHHELD	7589 CALVPCADO ST	LEMON GROVE, CA	91945
NAME WITHHELD	760 W SIXTH ST	GILROY, CA	95020
NAME WITHHELD	76376 SWEET PEA WAY	PALM DESERT, CA	92211
NAME WITHHELD	76845 REED CIR	CATHEDRAL CY, CA	92234
NAME WITHHELD	7728 REGENTS RD STE 503	SAN DIEGO, CA	92122
NAME WITHHELD	77441 EVENING STAR	INDIAN WELLS, CA	92210
NAME WITHHELD	7784 SUNDANCE DR	COEUR D ALENE, ID	83815
NAME WITHHELD	77875 LAREDO CT	LA QUINTA, CA	92253
NAME WITHHELD	77895 CHEROKEE WAY	INDIAN WELLS, CA	92210
NAME WITHHELD	78 CALLE MANZANITA	RANCHO MIRAGE, CA	92270
NAME WITHHELD	780 HORSTMAN ST	TEMPLETON, CA	93465
NAME WITHHELD	78151 RAINBOW DR	PALM DESERT, CA	92211
NAME WITHHELD	784 FOXKIRK RD	GLENDALE, CA	91206
NAME WITHHELD	78426 KISTLER WAY	PALM DESERT, CA	92211
NAME WITHHELD	78449 BENT CANYON CT	BERMUDA DUNES, CA	92203
NAME WITHHELD	78600 AVENIDA LA FONDA	LA QUINTA, CA	92253
NAME WITHHELD	7872 HUMBOLDT RD	BUTTE MEADOWS, CA	95942
NAME WITHHELD	78818 SUNRISE CANYONS	PALM DESERT, CA	92211
NAME WITHHELD	78843 WATERFORD LN	PALM DESERT, CA	92211
NAME WITHHELD	78850 ZENITH WAY	LA QUINTA, CA	92253
NAME WITHHELD	78855 SANDALWOOD PL	PALM DESERT, CA	92211
NAME WITHHELD	79816 DANDELION DR	LA QUINTA, CA	92253
NAME WITHHELD	80 HUNTINGTON ST 712	HUNTINGTON BEACH, CA	92648
NAME WITHHELD	800 AIRPORT BLVD NO 510	BURLINGAME, CA	94010
NAME WITHHELD	800 S HAVEN STE 300	ONTARIO, CA	91764
NAME WITHHELD	803 N DOHENY DR	BEVERLY HILLS, CA	90210
NAME WITHHELD	80468 ULLSWATER DR	INDIO, CA	92203
NAME WITHHELD	80505 VIA TERRACINA	LA QUINTA, CA	92253
NAME WITHHELD	80725 CAM SAN GREGORIO	INDIO, CA	92203
NAME WITHHELD	810 RONDA MENDOZA UNT O	LAGUNA WOODS, CA	92637
NAME WITHHELD	81619 CHARISMATIC WAY	LA QUINTA, CA	92253
NAME WITHHELD	81709 DR CARREON BL	INDIO, CA	92201

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OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	8181 FALSOM BLVD 220	SACRAMENTO, CA	95826
NAME WITHHELD	81940 HIGHWAY 111	INDIO, CA	92201
NAME WITHHELD	822 HAIGHT ST	SAN FRANCISCO, CA	94117
NAME WITHHELD	82626 BOGART DR	INDIO, CA	92201
NAME WITHHELD	828 SCENIC VIEW RD	OZARK, MO	65721
NAME WITHHELD	83 FREMONT PL	LOS ANGELES, CA	90005
NAME WITHHELD	8306 WILSHIRE BLVD NO 126	BEVERLY HILLS CA	90211
NAME WITHHELD	8311 121ST AVE SOUTHEAST	NEW CASTLE, WA	98056
NAME WITHHELD	83300 LIGHTNING RD	INDIO, CA	92203
NAME WITHHELD	8370 WEST 4TH ST	LOS ANGELES, CA	90048
NAME WITHHELD	83792 HOPI AVE	INDIO, CA	92201
NAME WITHHELD	83817 AVENIDA SERENA	INDIO, CA	92203
NAME WITHHELD	84 VIA DEL MERCATO	RANCHO MIRAGE, CA	92270
NAME WITHHELD	8480 STAGECOACH CIR	FREDERICK, MD	21701
NAME WITHHELD	85 CALLE DE ESPACIO	PALM SPRINGS, CA	92264
NAME WITHHELD	8500 OLD HWY 99 SE	OLYMPIA, WA	98501
NAME WITHHELD	8547 WHITE OAK AVE 106	RANCHO CUCAMONGA, CA	91730
NAME WITHHELD	8550 YEARLING WAY	RIVERSIDE, CA	92509
NAME WITHHELD	8645 BELMONT ST NO 6	CYPRESS, CA	90630
NAME WITHHELD	868 MISTY MEADOW CT	CHULA VISTA, CA	91910
NAME WITHHELD	874 PAIGE DR	POMONA, CA	91768
NAME WITHHELD	8742 LUCENT BLV STE 300	HIGHLANDS RANCH, CO	80129
NAME WITHHELD	8866 TULARE DR NO 303D	HUNTINGTON BEACH, CA	92646
NAME WITHHELD	888 E RESEARCH DR NO 111	PALM SPRINGS, CA	92262
NAME WITHHELD	8900 SANTA MONICA BLV	WEST HOLLYWOOD, CA	90069
NAME WITHHELD	899 E TAMARISK RD	PALM SPRINGS, CA	92262
NAME WITHHELD	9 VISTA MIRAGE WAY	RANCHO MIRAGE, CA	92270
NAME WITHHELD	901 E TAHQUITZ CYN C204	PALM SPRINGS, CA	92262
NAME WITHHELD	902 EDGEWOOD DR	SUGAR GROVE, IL	60554
NAME WITHHELD	9039 BERTRAND AVE	NORTHRIDGE, CA	91325
NAME WITHHELD	904 WESTPORT LN	VISTA, CA	92084
NAME WITHHELD	9065 HAVEN AVE STE 100	RANCHO CUCAMONGA, CA	91730
NAME WITHHELD	9080 SANTA MONICA BLV	LOS ANGELES, CA	90069
NAME WITHHELD	911 HACIENDA	VISTA, CA	92081
NAME WITHHELD	9144 CLANCEY AVE	DOWNEY, CA	90240
NAME WITHHELD	9151 OBSIDIAN DR	WESTMINSTER, CA	92683
NAME WITHHELD	9181 JULIE BETH ST	CYPRESS, CA	90630
NAME WITHHELD	9238 OLIVE ST	BELLFLOWER, CA	90706
NAME WITHHELD	924 SKYLARK LN	GRANTS PASS, OR	97527
NAME WITHHELD	9253 WEDGEWOOD ST	TEMPLE CITY, CA	91780
NAME WITHHELD	930 N RAYMOND	PASADENA, CA	91103
NAME WITHHELD	931 CORPORATE CENTER DR	POMONA, CA	91768
NAME WITHHELD	9362 CANDLEWOOD DR	HUNTINGTON BEACH, CA	92646
NAME WITHHELD	9410 JAMACHA BLV	SPRING VALLEY, CA	91977
NAME WITHHELD	942 S PASEO DOROTEA	PALM SPRINGS, CA	92264
NAME WITHHELD	945 VENEZIA AVE	VENICE, CA	90291
NAME WITHHELD	95 SW WILLOWBROOK PL	GRESHAM, OR	97080
NAME WITHHELD	96 N THIRD ST STE 275	SAN JOSE, CA	95112
NAME WITHHELD	965 CALLE SANTA CRUZ	PALM SPRINGS, CA	92264
NAME WITHHELD	9702 BOLSA AVE 19	WESTMINSTER, CA	92683
NAME WITHHELD	9729 AVENIDA MONTEREY	CYPRESS, CA	90603

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RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	9823 N COMANCHE DR	SPOKANE, WA	99208
NAME WITHHELD	9855 WHITWELL DR	BEVERLY HILLS, CA	90210
NAME WITHHELD	990 PALENCIA, CT	CHULA VISTA, CA	91910
NAME WITHHELD	CAMPBELL RIVER	BC CANADA	V9W 4P4
NAME WITHHELD	CAMPBELL RIVER	BC CANADA	V9W2R5
NAME WITHHELD	MEDICINE HAT AB	CANADA	T1B 2X1
NAME WITHHELD	ONE CVS DR	WOONSOCKET, RI	2895
NAME WITHHELD	P O BOX 100	SUNSET BEACH, CA	90742
NAME WITHHELD	P O BOX 10015	PALM DESERT, CA	92255
NAME WITHHELD	P O BOX 10179	PALM DESERT, CA	92255
NAME WITHHELD	P O BOX 1032	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 1034	RANCHO MIRAGE, CA	92270
NAME WITHHELD	P O BOX 1048	CLEARLAKE OAKS, CA	95423
NAME WITHHELD	P O BOX 1058	COACHELLA, CA	92236
NAME WITHHELD	P O BOX 11000	SANTA ANA, CA	92711
NAME WITHHELD	P O BOX 1101	REDLANDS, CA	92373
NAME WITHHELD	P O BOX 1113	NOVATO, CA	94948
NAME WITHHELD	P O BOX 1142	THERMAL, CA	92274
NAME WITHHELD	P O BOX 11509	NEWPORT BEACH, CA	92658
NAME WITHHELD	P O BOX 1249	TOPEKA, KS	66601
NAME WITHHELD	P O BOX 1267	BANNING, CA	92220
NAME WITHHELD	P O BOX 1281	PALM DESERT, CA	92261
NAME WITHHELD	P O BOX 130	CATHEDRAL CY, CA	92235
NAME WITHHELD	P O BOX 13455	PALM DESERT, CA	92255
NAME WITHHELD	P O BOX 1392	BAKERSFIELD, CA	93302
NAME WITHHELD	P O BOX 1406	BIG BEAR LAKE, CA	92315
NAME WITHHELD	P O BOX 1433	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 144	BANNING, CA	92220
NAME WITHHELD	P O BOX 14505	DEL MOINES, IA	50306
NAME WITHHELD	P O BOX 1451	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 150	SAN BERNARDINO, CA	92402
NAME WITHHELD	P O BOX 152206	IRVING, TX	75015
NAME WITHHELD	P O BOX 1602	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 1650	RANCHO MIRAGE, CA	92270
NAME WITHHELD	P O BOX 1664	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 1707	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 1710	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 178	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 1822	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 1898	CATHEDRAL CY, CA	92235
NAME WITHHELD	P O BOX 1974	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 1976	PALM DESERT, CA	92261
NAME WITHHELD	P O BOX 20	BOISE, ID	83726
NAME WITHHELD	P O BOX 2026	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 208	SEAL BEACH, CA	90740
NAME WITHHELD	P O BOX 2083	FULLERTON, CA	92837
NAME WITHHELD	P O BOX 2093	BIG BEAR, CA	92314
NAME WITHHELD	P O BOX 215	THOUSAND PLMS, CA	92276
NAME WITHHELD	P O BOX 2163	CATHEDRAL CY, CA	92234
NAME WITHHELD	P O BOX 2185	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2198	MEMPHIS, TN	38101

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	P O BOX 2201	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2225	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2245	PALM SPRINGS, CA	92262
NAME WITHHELD	P O BOX 2245	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 225	BIG BEAR LAKE, CA	92315
NAME WITHHELD	P O BOX 2263	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2290	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 23	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2342	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 2363	HOMER, AK	99603
NAME WITHHELD	P O BOX 2364	LAGUNA HILLS, CA	92654
NAME WITHHELD	P O BOX 2405	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2428	PENSICOLA, FL	32513
NAME WITHHELD	P O BOX 244	THOUSAND PALMS, CA	92276
NAME WITHHELD	P O BOX 2487	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2613	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2622	SEAL BEACH, CA	90740
NAME WITHHELD	P O BOX 2647	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 2654	SANTA BARBARA, CA	93120
NAME WITHHELD	P O BOX 2669	TULUCA LAKE, CA	91610
NAME WITHHELD	P O BOX 27	VILLAGE MILLS, TX	77663
NAME WITHHELD	P O BOX 2743	PALM SPRINGS, CA	92262
NAME WITHHELD	P O BOX 2743	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2743	PALM SPRINGS CA	92263
NAME WITHHELD	P O BOX 276	THOUSAND PLMS, CA	92276
NAME WITHHELD	P O BOX 277	WINCHESTER, TN	37398
NAME WITHHELD	P O BOX 2800	CATHEDRAL CY, CA	92235
NAME WITHHELD	P O BOX 2817	INDIO, CA	92202
NAME WITHHELD	P O BOX 2822	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 283	VENICE, CA	90294
NAME WITHHELD	P O BOX 2868	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 2881	RANCHO MIRAGE, CA	92270
NAME WITHHELD	P O BOX 2894	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 292190	LEWISVILLE, TX	75067
NAME WITHHELD	P O BOX 3022	RANCHO MIRAGE, CA	92270
NAME WITHHELD	P O BOX 3034	GRANADA HILLS, CA	91394
NAME WITHHELD	P O BOX 3034	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 31666	SEATTLE, WA	98103
NAME WITHHELD	P O BOX 3212	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 3293	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 332	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 342	THOUSAND PALM, CA	92276
NAME WITHHELD	P O BOX 34442 MS S TAX3	SEATTLE, WA	98124
NAME WITHHELD	P O BOX 347442 M/S S TAX3	SEATTLE, WA	98124
NAME WITHHELD	P O BOX 35370	LOUISVILLE, KY	40232
NAME WITHHELD	P O BOX 3649	DANBURY, CT	6813
NAME WITHHELD	P O BOX 373	CATHEDRAL CY, CA	92235
NAME WITHHELD	P O BOX 3792	SAN RAFAEL, CA	94912
NAME WITHHELD	P O BOX 389	LA QUINTA, CA	92253
NAME WITHHELD	P O BOX 3922	APPLE VALLEY, CA	92307
NAME WITHHELD	P O BOX 394	PALM SPRINGS, CA	92263

MASTER MAILING LIST: (Continued)
OWNERS OF RESIDENCES LOCATED WITHIN 300 FEET OF PROPSED PROJECT OR AN ALTERNATIVE, SENT NOTICE OF AVAILABILITY VIA UNITED STATES POSTAL SERVICE

RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	P O BOX 394	THOUSAND PLMS, CA	92276
NAME WITHHELD	P O BOX 399	PALM DESERT, CA	92261
NAME WITHHELD	P O BOX 410	LONG BEACH, CA	90801
NAME WITHHELD	P O BOX 4102	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 4135	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 4138	SANTA ANA, CA	92702
NAME WITHHELD	P O BOX 41996	LOS ANGELES, CA	90041
NAME WITHHELD	P O BOX 4241	REDONDO BEACH, CA	90277
NAME WITHHELD	P O BOX 43	MORENO VALLEY, CA	92556
NAME WITHHELD	P O BOX 4420	PALM DESERT, CA	92261
NAME WITHHELD	P O BOX 446	QUINCY, CA	95971
NAME WITHHELD	P O BOX 449	GENOA, NV	89411
NAME WITHHELD	P O BOX 4490	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 4542	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 4825	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 4900	SCOTTSDALE, AZ	85260
NAME WITHHELD	P O BOX 4900	SCOTTSDALE, AZ	85261
NAME WITHHELD	P O BOX 494 DAVIDSON	SASKATCHEWAN CANADA	SOG1AO
NAME WITHHELD	P O BOX 500	BEAUMONT, CA	92223
NAME WITHHELD	P O BOX 5001	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 50085	WATSONVILLE, CA	95077
NAME WITHHELD	P O BOX 5015	BUENA PARK, CA	90622
NAME WITHHELD	P O BOX 5015	BUENA PARK, CA	90623
NAME WITHHELD	P O BOX 5119	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 53	HOUSTON, TX	77001
NAME WITHHELD	P O BOX 531	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 536	PETERSBURG, AK	99833
NAME WITHHELD	P O BOX 5569	SHERMAN OAKS, CA	91413
NAME WITHHELD	P O BOX 5636	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 5643	LA QUINTA, CA	92248
NAME WITHHELD	P O BOX 569	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 576	THOUSAND PALMS, CA	92276
NAME WITHHELD	P O BOX 580958	N PALM SPRINGS, CA	92258
NAME WITHHELD	P O BOX 581043	NORTH PALM SPRINGS, CA	92258
NAME WITHHELD	P O BOX 633	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 635	MORONGO VALLEY, CA	92256
NAME WITHHELD	P O BOX 637	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 65	THOUSAND PALMS, CA	92276
NAME WITHHELD	P O BOX 6562	LA QUINTA, CA	92253
NAME WITHHELD	P O BOX 6582	BUENA PARK, CA	90622
NAME WITHHELD	P O BOX 659	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 6623	ENGLEWOOD, CO	80155
NAME WITHHELD	P O BOX 6838	EDSON AB CANADA	T7E1V2
NAME WITHHELD	P O BOX 687	SOUTH BEACH, OR	97366
NAME WITHHELD	P O BOX 690110	SAN ANTONIO TX	78269
NAME WITHHELD	P O BOX 696	CATHEDRAL CITY, CA	92234
NAME WITHHELD	P O BOX 7000	ROLLING HILLS EST, CA	90274
NAME WITHHELD	P O BOX 711	DALLAS, TX	75221
NAME WITHHELD	P O BOX 725	THOUSAND PALMS, CA	92276
NAME WITHHELD	P O BOX 7422	BEVERLY HILLS, CA	90012
NAME WITHHELD	P O BOX 745	THOUSAND PALMS, CA	92276

MASTER MAILING LIST: (Continued)
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RESIDENT	STREET	CITY, STATE	ZIP CODE
NAME WITHHELD	P O BOX 774	RUNNING SPRINGS, CA	92382
NAME WITHHELD	P O BOX 790830	SAN ANTONIO, TX	78279
NAME WITHHELD	P O BOX 8	CATHEDRAL CY, CA	92234
NAME WITHHELD	P O BOX 800	ROSEMEAD, CA	91770
NAME WITHHELD	P O BOX 802206	DALLAS, TX	75380
NAME WITHHELD	P O BOX 802416	DALLAS, TX	75380
NAME WITHHELD	P O BOX 812	THOUSAND PALMS, CA	92276
NAME WITHHELD	P O BOX 8309	TRUCKEE, CA	96162
NAME WITHHELD	P O BOX 835	PETERSBURG, AK	99833
NAME WITHHELD	P O BOX 867	CATHEDRAL CITY, CA	92235
NAME WITHHELD	P O BOX 871908	WASILLA, AK	99687
NAME WITHHELD	P O BOX 874	CRESTLINE, CA	90325
NAME WITHHELD	P O BOX 90220	DENTON, TX	76202
NAME WITHHELD	P O BOX 9108	PALM SPRINGS, CA	92262
NAME WITHHELD	P O BOX 9108	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 9188	PORTLAND, OR	97207
NAME WITHHELD	P O BOX 937	IMPERIAL, CA	92251
NAME WITHHELD	P O BOX 94054	PASADENA, CA	91109
NAME WITHHELD	P O BOX 963	HORSHAM, PA	19044
NAME WITHHELD	P O BOX 966	PALM SPRINGS, CA	92263
NAME WITHHELD	P O BOX 969	MINOT, ND	58702
NAME WITHHELD	P O BOX 97	CHULA VISTA, CA	91912
NAME WITHHELD	P O BOX 987	CATHEDRAL CY, CA	92235
NAME WITHHELD	P O DRAWER 1707	PALM SPRINGS, CA	92263
NAME WITHHELD	PROMENADE NO 416	ANAHEIM, CA	92805
NAME WITHHELD	PSC 472 BOX 100	FPO, AP	96348
NAME WITHHELD	RR 2 STN MAIN	OLDS AB CANADA	T4H 1P3
NAME WITHHELD	RR 3	FAIRFIELD, IL	62837
	US DEPT OF INTERIOR	WASHINGTON, DC	21401
NAME WITHHELD	W 5663 FAIRVIEW DR	NORWAY, MI	89470