

Executive Summary

ES.1 INTRODUCTION/BACKGROUND

Southern California Edison (SCE) filed an application (Application Number A.07-02-022) for a Permit to Construct (PTC) with the California Public Utilities Commission (CPUC) on February 16, 2007 for the El Casco System Project (Proposed Project). The El Casco System Project includes the proposed El Casco Substation site, upgrades to the Zanja and Banning Substations and the SCE's Mill Creek Communications Site, upgrading of a total of 15.4 miles of existing 115 kV subtransmission line and associated structures, and the installation of fiber optic cables within existing conduits in public streets and on existing SCE structures between the Cities of Redlands and Banning.

SCE's stated objectives for the Proposed Project are: (1) to serve long-term projected electrical load requirements in the Electrical Needs Area shown in Figure ES-1 (i.e., northern Riverside County); (2) to provide enhanced system reliability by constructing a project in a suitable location to serve the Electrical Needs Area; (3) to provide greater operational flexibility to transfer load between lines and substations; (4) to provide substations with more than one 28 mega volt ampere (MVA) transformer with service from two 115 kV lines; (5) to provide safe and reliable electrical service consistent with SCE's planning guidelines and Subtransmission Guidelines; (6) to meet project need while minimizing environmental impacts; and (7) to meet project need in a cost-effective manner.

The CPUC is the State lead agency, responsible for compliance with the California Environmental Quality Act (CEQA). A Draft Environmental Impact Report (EIR) has been prepared by the CPUC in compliance with CEQA Guidelines. The EIR discloses the environmental impacts expected to result from the construction and operation of SCE's Proposed Project and mitigation measures, which if adopted by the CPUC or other responsible agencies, could avoid or minimize significant environmental effects. In accordance with CEQA guidelines, the EIR also evaluates alternatives (including the No Project Alternative) to the Proposed Project that could avoid or minimize the significant environmental effects. Alternatives are described and screened for compliance with CEQA in Appendix 1, then summarized in EIR Section C. Alternatives that meet the CEQA criteria are analyzed along with the Proposed Project in 13 environmental issue areas in Section D of the EIR. The EIR provides a comparison of the environmental effects of the Proposed Project and the alternatives, and identifies the Environmentally Superior Alternative.

The El Casco System Project EIR is an information document only; and does not make a recommendation regarding the approval or denial of the project. The purpose of the EIR is to inform the public on the environmental setting and impacts of the Proposed Project and alternatives. The EIR will be used by the CPUC in conducting the proceeding to determine whether to grant SCE's requested PTC.

This Executive Summary (ES) provides an overview of the Proposed Project and alternatives considered, and the environmental findings and mitigation measures of the EIR.

The EIR analyzes the environmental impacts of SCE's Proposed Project as well as alternatives that were developed as a result of public and agency input during the scoping process. Analysis is presented for two alternatives: the CPUC's Northerly Route Alternative Option 3 (overhead 115 kV subtransmission line route), and the Partial Underground Alternative (an approximate one-mile portion

[Click here for Figure ES-1](#)

of the Proposed Project route through the Sun Lakes Community). In addition, the No Project Alternative is analyzed, as required by CEQA. As documented in detail in the Alternatives Screening Report (Appendix 1 to the EIR), six additional alternatives were considered but eliminated from detailed consideration.

Based on comparison of the environmental impacts of the Proposed Project and alternatives, the Environmentally Superior Alternative is identified as required by CEQA. The Environmentally Superior Alternative would be the Proposed Project. Impacts of the Environmentally Superior Alternative are defined in each issue area's impact analysis as presented in Section D (Environmental Analysis) within this EIR. As described above, the Proposed Project would result in significant unavoidable impacts. However, as described in Section D (Environmental Analysis), the impacts associated with construction and operation of the Proposed Project would be less than those generated by construction and operation of the CPUC's Northerly Route Alternative Option 3 and the Partial Underground Alternative.

The following sections provide the reader with a brief description of the Proposed Project and alternatives (including alternatives analyzed in detail and those eliminated from detailed consideration), a summary of environmental impacts in each environmental issue area, a summary of the comparison of alternatives, and tables (located at the end of the Executive Summary) listing all impacts identified in the EIR.

ES.1.1 Proposed Project

Description of the Proposed Project

Figure ES-2 is an overview of the route of the subtransmission line proposed by SCE. The major elements of SCE's Proposed Project are:

- Construct the new El Casco 220/115/12 kV Substation within the Norton Younglove Reserve in the County of Riverside, associated 220 kV and 115 kV interconnections, and new 12 kV line getaways (i.e., distribution line connections out of the substation).
- Replace approximately 13 miles of existing single-circuit 115 kV subtransmission lines with new, higher capacity double-circuit 115 kV subtransmission lines and replace support structures within existing SCE rights-of-way (ROWs) in the Cities of Banning and Beaumont and unincorporated areas of Riverside County.¹
- Replace approximately 1.9 miles of existing single-circuit 115 kV subtransmission lines with new, higher capacity single-circuit 115 kV subtransmission lines and replace support structures within existing SCE ROWs in the City of Beaumont and unincorporated Riverside County.
- Replace approximately 0.5 mile of existing single-circuit 115 kV subtransmission lines with new, higher capacity single-circuit 115 kV subtransmission lines on existing support structures within existing SCE ROWs in the City of Beaumont and unincorporated Riverside County.
- Rebuild 115 kV switchracks within Zanja and Banning Substations in the Cities of Yucaipa and Banning, respectively.
- Install telecommunications equipment at the proposed El Casco Substation and at SCE's existing Mill Creek Communications Site.
- Install fiber optic cables within public streets and on existing SCE structures between the Cities of Redlands and Banning.

¹ Various segments of the existing 115 kV subtransmission lines also have distribution lines on the same structures. Where there are existing distribution lines on the structures, they would be transferred to the new structures.

SCE would construct the proposed El Casco Substation in northern Riverside County within the Norton Younglove Reserve in close proximity to San Timoteo Canyon Road and SCE's existing Devers-San Bernardino No. 2 220 kV transmission line ROW. The Devers-San Bernardino No. 2 220 kV transmission line would serve as the electrical source for the El Casco Substation and its 115 kV system.

The 115 kV subtransmission line work would occur between El Casco, Maraschino, and Banning Substations within existing SCE ROWs in unincorporated Riverside County and the Cities of Beaumont and Banning. The Proposed Project would also involve the rebuilding of switchracks at Banning and Zanja Substations in the Cities of Banning and Yucaipa, respectively.

As part of the new fiber optic system, microwave towers would be installed at El Casco Substation and the existing Mill Creek Communications Site, located on SCE-owned property within the San Bernardino National Forest. Five new fiber optic circuits would be installed between the Cities of Redlands and Banning within existing SCE ROWs.

The Proposed Project would be constructed and operational in two phases (Phase 1 and Phase 2) from approximately June 2008 to June 2010.

Environmental Setting of the Proposed Project

The Proposed Project is located in northern Riverside County and southern San Bernardino County, within the cities of Banning, Beaumont, Calimesa, Yucaipa, and Redlands, and unincorporated county lands.

El Casco Substation and the 115 kV Subtransmission Line Route. The proposed El Casco Substation would be located within the Norton Younglove Reserve in the County of Riverside. From this substation, the proposed 115 kV subtransmission line would be located within existing SCE ROWs through unincorporated Riverside County and the Cities of Beaumont and Banning, where it would connect to SCE's existing Banning Substation. The majority of the Proposed Project 115 kV ROW traverses open space areas west of the Maraschino Substation. As the route approaches the eastern portions of Beaumont, east of State Route 79, the ROW traverses residential developments. East of Highland Home Road in Banning, the ROW traverses open space areas. As the route turns north to connect to the Banning Substation, it traverses residential and some light industrial development near Interstate 10.

Other Substations, Facilities, and Fiber Optic Cable Route. Proposed Project activities at the Zanja and Banning Substations (located in the Cities of Yucaipa and Banning, respectively) would occur within substation boundaries. In addition, installation of telecommunications equipment at the proposed El Casco Substation and at SCE's existing Mill Creek Communications Site (located on private land in the San Bernardino National Forest) would occur within the boundaries of those existing facilities.

SCE would install fiber optic cables within public streets and on existing SCE structures between the City of Redlands in San Bernardino County and the City of Banning in Riverside County. Similar to the subtransmission line route, the fiber optic cable route traverses predominantly open space areas and residential development.

[Click here for Figure ES-2](#)

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ES.1.2 Summary of Public Involvement Activities

The CEQA environmental review process for the El Casco System Project began with the CPUC's issuance of the Notice of Preparation of an EIR on July 16, 2007, which kicked off the EIR scoping process.

- The NOP was filed with the State Clearinghouse on July 16, 2007 (SCH# 2007071076), which initiated the 30-day public scoping period. The review period for the NOP ended on August 14, 2007. The NOP also included notice of the CPUC's Pre-Hearing Conference for the Proposed Project, and public scoping meetings that were held on August 1, 2007 in the Cities of Banning and Beaumont, California.
- Over 800 copies of the NOP were distributed to federal, State, regional, and local agencies; elected officials; and property owners within 300 feet of the Proposed Project alignment. In addition, five copies of the NOP were delivered to local repository sites where documents and project information can be reviewed.
- The CPUC held one Pre-Hearing Conference (PHC) and two public scoping meetings in two locations in northern Riverside County on August 1, 2007. The PHC was held to identify issues related to the CPUC's General Proceeding and help determine the need to conduct hearings on the Proposed Project. The two public scoping meetings provided an opportunity for the public and government agencies to obtain more information on the proposed El Casco System Project, to learn more about the CEQA environmental review process, to ask questions regarding the Proposed Project, and to provide formal scoping comments.
- The date and location of the PHC and public scoping meetings were advertised in five local newspapers. The advertisements provided a brief synopsis of the project and encouraged attendance at the meetings to share comments on the Proposed Project.
- During the scoping process and prior to conducting the public scoping meetings, the CPUC contacted ten potentially affected local and regional agencies, which were contacted by phone to provide information on the project and to determine interest in face-to-face meetings to discuss the Proposed Project. These agencies were sent an information packet that included a project fact sheet and an 11 by 17 color map of the Proposed Project components and subtransmission line route.
- The CPUC also provided opportunities for the public and agencies to ask questions or make comments on the El Casco System Project outside of the meetings. A public hotline, email address, and website were established and available during the public comment period.
- Information about the El Casco System Project was made available through the Project website hosted by the CPUC. During the July/August 2007 scoping period, the website included electronic versions of the Project Application and PEA, NOP, and project-related maps, and thus provided another public venue to obtain information on the Proposed Project. The website will remain a public information resource for the CPUC's environmental review of the Proposed Project, and will announce future public meetings and hearings.
- Local repository sites were established where documents and project information can be reviewed by the public. The NOP, Public Scoping Report, this Draft EIR, and all future Proposed Project-related documents are available for review at the information repository sites.

ES.1.3 Areas of Controversy/Public Scoping Issues

Section ES.1.3.1 describes major issues raised during the scoping period.

ES.1.3.1 Scoping Issues and Comments

The following public agencies and private citizens provided comments during the Scoping process in July and August of 2007:

- South Coast Air Quality Management District
- Native American Heritage Commission
- Banning City Attorney (Burke, Williams & Sorensen, LLP)
- Henry Tappata – Chairman, Transportation Committee, Banning Chamber of Commerce
- Mr. Marvin Friedman (Banning)
- Mr. Osvaldo Henry Tappata (Banning)

- Riverside County Flood Control and Water Conservation District (Theresa Tung/Art Diaz)
- Department of Toxic Substances Control
- County of San Bernardino Land Use Services Department
- Mr. Virgil Barham (Yucaipa)
- Mr. Tim K. Beach (Banning)
- Mr. Ron Domme (Banning)
- Mr. Edward H. Leonhardt (Banning)
- Mr. & Mrs. James W. & Nancy R. Brown (Banning)

The issues raised during the public scoping process are described in detail in the Public Scoping Report (available on the CPUC's CEQA Project website and at the five document repository sites), and are summarized below.

- **Human Environment.** The majority of public comments focused on the potential effect of the project on the human environment, most often expressing concerns with health risks arising from increased EMF emissions, visual and scenic impacts, and impacts to property values. Other common concerns expressed dealt with safety issues, noise, construction impacts, interference with communication and electronic equipment, electrocution impacts, fire hazards, security concerns, conflicts with planned uses, cultural resources impacts, and recreation impacts.
- **Natural Environment.** Comments from organizations, individuals, and government agencies addressed issues and concerns with the potential impacts that the project would have on the natural environment, particularly impacts to plants, wildlife, and habitats. Concerns were expressed that the project would affect (a) rare, threatened, endangered, and special-status plant species, (b) federal and State protected wildlife species, and (c) sensitive habitats.
- **Alternatives.** Many comments from individuals and government agencies suggested a variety of alternatives, including undergrounding of the subtransmission line and alternative routes.

ES.2 ALTERNATIVES

Alternatives to SCE's Proposed Project are identified and evaluated in accordance with CEQA Guidelines. CEQA Guidelines (Section 15126.6[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 suggested during the scoping period (July/August 2007) by the general public and government agencies after SCE filed its Application for a PTC. Other alternatives were developed by EIR preparers or presented by SCE in its PEA. In total, eight alternatives were identified, including alternative route alignments or substation sites, alternative system configurations, and partial undergrounding of the route.

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. Other factors considered, in accordance with CEQA Guidelines (CEQA Guidelines Section 15126.6[f][1]), were site suitability, economic viability, avail-

ability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and proponent's control over alternative sites. Economic factors or costs of the alternatives (beyond economically feasible) 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 15126.6[b]).

The detailed results of the alternatives screening analysis are contained in Appendix 1 of the EIR (Alternatives Screening Report), and in Section C (Alternatives). A summary description of the alternatives considered and the results of screening are provided below.

ES.2.1 Alternatives Fully Evaluated in the EIR

CPUC's Northerly Route Alternative Option 3

Alternative Description. This 21.8-mile route was recommended by CPUC and refined by SCE. Route Alternative Option 3 would consist of: (1) rebuilding the entire El Casco-Maraschino 115 kV subtransmission line; (2) rebuilding a portion of the Banning-Maraschino 115 kV subtransmission line; and (3) creating the El Casco-Banning and El Casco-Zanja 115 kV subtransmission lines from a combination of new construction and rebuilding of a portion of the existing Devers-Banning-Windpark-Zanja 115 kV subtransmission line. Nine and one half (9.5) miles of this route would be new 115 kV subtransmission line located in an existing SCE transmission line corridor that currently consists of the Devers-San Bernardino No. 1 and No. 2 220 kV transmission lines, and the Devers-Vista double-circuit 220 kV transmission line. 5.8 miles of upgrades would occur between El Casco and Maraschino Substations in the same ROW as the Proposed Project. This alternative would avoid the Proposed Project construction activities between Maraschino and Banning Substations. SCE's existing single-circuit 115 kV subtransmission line in this area is currently energized only during emergency situations. With this alternative, this existing line would be energized at all times. The remaining 6.5 miles of this route would occur between Banning Substation and the "Zanja Break-off" on existing subtransmission line structures.

Rationale for Full Analysis. This alternative is feasible and would meet all project objectives. During the alternatives development and screening process (documented in Appendix 1 of the EIR), it was determined that there is a potential for this alternative to reduce or avoid significant Proposed Project environmental impacts to visual and recreational resources, and to reduce project-related construction and operation nuisances near residences.

Partial Underground Alternative

Alternative Description. The Partial Underground Alternative was developed as a partial overhead/underground alternative due to comments raised during the scoping process. With this alternative, the existing H-frame wood poles for SCE's existing overhead single-circuit 115 kV subtransmission line through the Sun Lakes community would be removed, and a new double-circuit 115 kV subtransmission line would be installed underground within the existing SCE ROW between approximately Mile 9.0 and 10.0, beginning just east of Highland Springs Avenue and ending just east of S. Riviera Avenue and west of S. Highland Home Road. Once through the Sun Lakes community, at approximately Mile 9.9, the new double-circuit 115 kV subtransmission line would transition back to overhead construction as described for the Proposed Project. This alternative would require approximately 10 fewer new steel poles (assuming one pole every 400 to 800 feet, which is the same as

the current spacing), as the subtransmission lines would be placed underground rather than on overhead infrastructure.

Rationale for Full Analysis. This alternative is feasible and meets all project objectives. In addition, the Partial Underground Alternative eliminates the existing and proposed subtransmission line through the Sun Lakes community.

ES.2.2 Alternatives Eliminated From Further Consideration

The alternatives listed below were evaluated for their potential to meet CEQA requirements but were ultimately eliminated from consideration in the EIR. A more detailed description of each alternative and the rationale for its consideration and elimination is presented in Draft EIR Appendix 1, Alternatives Screening Report.

Subtransmission Line Route Alternatives

SCE's Northerly Route Alternative

Alternative Description. The system requirements (i.e., upgrades and new construction) and route of this alternative would be almost exactly the same as CPUC's Northerly Route Alternative Option 3 (described above), except this route differs between "Zanja Break-off" and Banning Substation, which is the second segment of the route that SCE refers to as the El Casco-Banning Subtransmission Line. The detailed description of this route is provided in Appendix 1 of the EIR.

Rationale for Elimination. Implementation of the Northerly Route Alternative would result in slightly higher levels of impacts than the Proposed Project due to a longer route and the acquisition of new ROW. The amount and density of existing and planned residential receptors impacted by the Northerly Route Alternative is greater than the residential areas of the Proposed Project that would be avoided (i.e., the Sun Lakes community on the east side of Highland Springs Avenue and the Four Seasons development on the west side of Highland Springs Avenue). Given that this alternative has slightly greater overall construction nuisances (i.e., air quality, noise, and traffic impacts), and greater visual impacts on residential sensitive receptors as compared to the Proposed Project, SCE's proposed Northerly Route Alternative was eliminated from further consideration.

CPUC's Northerly Route Alternative Option 1

Alternative Description. The system requirements for this alternative would be identical to CPUC's Northerly Route Alternative Option 3. In addition, the majority of this route alternative would be exactly the same as Route Alternative Option 3 (described above). The differences between CPUC's Northerly Route Alternative Options 1 and 3 are in the 115 kV subtransmission line route between the "Zanja Break-off" and Banning Substation. In particular, the new subtransmission line would connect to SCE's tower M17-T1 (located on land owned by the Morongo Indian Tribe). The detailed description of this route is provided in Appendix 1 of the EIR.

Rationale for Elimination. Route Alternative Option 1 would result in slightly higher levels of impacts than the Proposed Project due to a longer route and number of residential receptors exposed to construction and operational impacts. In addition, this alternative could result in legal feasibility issues due to crossing of Morongo Tribal lands. Given that this alternative has slightly greater overall construction and visual impacts when compared to the Proposed Project, and the potential for legal feasibility issues with siting of a subtransmission line on tribal lands, Route Alternative Option 1 was eliminated from further consideration.

CPUC's Northerly Route Alternative Option 2

Alternative Description. Route Alternative Option 2 occurs between “Zanja Break-off” and the Banning Substation. This route would be virtually identical to CPUC's Northerly Route Alternative Option 1 (described above), with the exception that at the point where the ROW crosses San Gorgonio Avenue, the route would turn due south, under three 220 kV transmission lines, for approximately 0.1 mile, then turn east to follow an existing distribution pole line (which currently supports a combination of SCE and City of Banning distribution voltages) for approximately 1.0 mile (SCE, 2007f). Then the route would turn south on Hargrave Street.

Rationale for Elimination. Given that this alternative has slightly greater overall construction and visual impacts as compared to the Proposed Project (due to approximately six miles more routing), Route Alternative Option 2 was eliminated from further consideration.

Other Transmission Alternatives

SCE's Vista System Upgrade

Alternative Description. An upgrade of the Vista System would require the addition of one 280 MVA, 220/115 kV transformer at Vista Substation, construction of two new 115 kV subtransmission lines to deliver the power, and the addition of a fourth 28 MVA, 115/12 kV transformer and five 12 kV distribution lines at Maraschino Substation. To add one 280 MVA, 220/115 kV transformer at Vista Substation requires adding a new 115 kV bank position, expanding the 220 kV switchrack one bay to the south for a new bank position, and constructing several transmission steel poles and conductors to connect the new transformer. Additionally the 115 kV switchrack would be expanded three bays to the east to create a new bus sectionalizing position, a new bank position, and new 115 kV line position for a new line. Various upgrades are required to the existing 115 kV switchrack, breakers, disconnects, conductors, and relays. The existing 66 kV switchrack would need to be demolished and rebuilt to make room for the 220/115 kV transformer work.

Rationale for Elimination. This alternative would not meet any of the primary project objectives due to the temporary nature of the expanded subtransmission line capacity associated with this alternative. In addition, it would require the establishment of a new utility corridor that would increase overall environmental impacts when compared to the Proposed Project, which would occur entirely within existing SCE ROW. Furthermore, as the location of the new ROW is unknown, this alternative has the potential to conflict with applicable plans and policies, thus being potentially infeasible from a regulatory perspective. Therefore, this alternative was eliminated from further analysis in this EIR

SCE's Alternative Substation Site

Alternative Description. SCE reviewed an alternative substation site in its PEA. The substation site property is a privately owned 68-acre parcel located northeast of San Timoteo Canyon Road, approximately 0.5 mile from the proposed El Casco Substation site (SCE, 2007a). This site is located in the City of Calimesa in a privately owned undeveloped area currently used for livestock grazing. The Alternative Substation Site would be developed using the same general design features and construction methods as those discussed for the Proposed Project. Because of space constraints at this Alternative Substation Site, the substation configuration would be altered to approximately parallel an existing drainage channel located along the length of the southern perimeter of the site. While the substation site layout would be altered, it is assumed identical facilities as those described for the proposed El Casco Substation would be constructed.

Rationale for Elimination. In general, both the Proposed Project and the Alternative Substation Site would result in similar types of impacts. However, the Alternative Substation Site would result in slightly higher levels of impacts than the Proposed Project in the areas of aesthetics, utilities, land use, and cultural resources. As the Alternative Substation Site would result in nonconformity with the Oak Valley Specific Plan, this alternative would not be consistent with the legal and regulatory feasibility criteria identified above and in section C.2.4, Feasibility. Therefore, the Alternative Substation Site was eliminated from further consideration.

Demand-Side Management

Alternatives 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. In spite of the State's success in reducing demand to some extent, California continues to grow and overall demand is increasing. 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 is insufficient to improve the service reliability to the Electrical Needs Area to the level desired and achieved through the El Casco System Project. As a stand-alone alternative to the Proposed Project, energy conservation and load management programs are eliminated from its consideration since they represent a small fraction of the capacity requirements needed to meet SCE's objectives for the Proposed Project.

ES.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

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 evaluates 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. The discussion of growth-inducing and cumulative impacts is included within Section F (Other Considerations) of the EIR. Regulatory compliance issues are discussed in each resource/issue area subsection of Section D. Two issues (Mineral Resources and Population and Housing) were found to have effects that were not significant, and are included in Section D.13 (Effects Found Not to Be Significant). The EIR analysis is organized according to the following major technical issue area categories:

- Air Quality
- Land Use
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services and Utilities
- Transportation and Traffic
- Visual Resources

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 impact

In a number of instances, SCE has proposed measures to reduce impacts to potentially affected resources or areas. These types of actions are termed “Applicant-Proposed Measures (APMs)” in the EIR and are considered in the impact assessment as part of SCE’s Proposed Project description. As such, these measures are different from CEQA mitigation measures, described below.

Mitigation Measures. The EIR describes feasible measures that could minimize significant adverse impacts (CEQA Guidelines Section 15126.4). 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 (Section D) and are presented in Mitigation Monitoring Program tables at the end of the analysis for each resource/issue area.

The major findings of the EIR analysis are summarized below according to resource issue area. Regulatory issues pertinent to each resource are identified, along with a summary of the primary Class I (significant, unmitigable) and Class II (significant, mitigable) impacts that would be expected from the construction and operation of the Proposed Project. Comparative effects of the alternatives are also provided. Impact findings and mitigation measures for the Proposed Project and alternatives are presented in the Impact Summary Tables at the end of this Executive Summary.

ES.3.1 Air Quality

ES.3.1.1 Proposed Project

Daily construction emissions based on the current integrated project construction schedule would be greater than the SCAQMD regional significance criteria for NO_x and PM₁₀. Implementation of mitigation presented in the Air Quality analysis would require fugitive dust controls and control exhaust emissions to the maximum degree feasible, but would not eliminate all potentially significant impacts. Also, SCE has committed to implementing APMs, as identified in Section B (Project Description), to minimize construction-related air emissions and control fugitive dust. However, the Proposed Project’s NO_x and PM₁₀ emissions, even after implementation of these feasible mitigation measures and APMs, would likely remain above the SCAQMD daily significance threshold values. Therefore, the daily emissions from the Proposed Project would temporarily cause significant and unavoidable (Class I) regional impacts during construction.

Selected construction activities are predicted to cause daily construction site emissions that exceed SCAQMD PM₁₀ and PM_{2.5} localized significance thresholds (LST). No construction activities are predicted to exceed the NO_x LST thresholds. Implementation of mitigation presented in the Air Quality analysis would require fugitive dust controls and control exhaust emissions to the maximum degree feasible. However, the Proposed Project’s PM₁₀ and PM_{2.5} emissions, even after implementation of these feasible mitigation measures, would likely remain above the SCAQMD LST significance

threshold values for selected construction activities and locations. Therefore, the daily emissions from the Proposed Project would temporarily cause significant and unavoidable impacts to sensitive receptors (Class I).

For the Proposed Project, a small amount of greenhouse gas (GHG) emissions, as compared to Statewide totals, would be emitted temporarily during the project's construction activities. However, an unquantifiable direct air quality impact of subtransmission system operation would be the potential escape of sulfur hexafluoride (SF₆), a potent greenhouse gas used in the operation of electrical switchgear equipment and circuit breakers. Because of the high global warming potential of SF₆, even small quantities of emissions are a concern. Any increase in SF₆ emissions would result in a net increase of GHG emissions and an adverse impact to climate change. Mitigation presented in the air quality analysis would require SCE to minimize SF₆ leaks and establish a strategy for replacing leaking equipment to reduce SF₆ leaks. While this measure would minimize the impact of SF₆ escape, it would not be possible to entirely eliminate this impact. Therefore, the direct impact of the Proposed Project on greenhouse gases would be adverse and result in a significant unavoidable impact (Class I) toward climate change.

Cumulative Impacts

As analyzed in Section F.1.5, Cumulative Impact Analysis, the Proposed Project was found to cumulatively exceed regional emission thresholds and cumulatively exceed localized emission thresholds, resulting in significant unavoidable (Class I) cumulative air quality impacts. Furthermore, because Proposed Project operation would contribute to greenhouse gas generation, the cumulative contribution to greenhouses gases would be significant and unavoidable (Class I) when combined with other development in the area generating greenhouse gases.

ES.3.1.2 Alternatives

CPUC's Northerly Route Alternative Option 3

Daily construction emissions for Route Alternative Option 3 would be similar to those presented in Section D.1, Air Quality, for the Proposed Project. Therefore, the daily emissions from Route Alternative Option 3 would temporarily cause significant and unavoidable (Class I) regional impacts.

The localized impacts for all phases of construction for this alternative, except for the additional northern 115 kV segment, are identical to those for the Proposed Project as shown previously in Table D.2-14. The new 115 kV route has the same maximum emission levels for construction and the same LST significance criteria (same Sensitive Receptor Areas, same site size, same minimum distance to receptor), so this is not an additional impact, rather it is the same impact that may occur in additional areas of the 115 kV route where the subtransmission route is unpaved and where sensitive receptors are located within 50 meters of the work areas. As noted previously, fugitive dust mitigation measures are assumed to be implemented in these emission estimates. Therefore, Route Alternative Option 3 would cause significant and unavoidable (Class I) localized PM₁₀ and PM_{2.5} impacts for sensitive receptors near the Banning Substation, the Zanja Substation, and selected areas of the 115 kV subtransmission line installation.

Construction and operation of Route Alternative Option 3 would result in similar impacts related to greenhouse gas emissions as that presented above for the Proposed Project. Therefore, the direct impact of the Proposed Project on greenhouse gases would result in a significant unavoidable impact (Class I) to climate change.

Cumulative Impacts. As analyzed in Section F.1.5, Cumulative Impact Analysis, Route Alternative Option 3 was found to cumulatively exceed regional emission thresholds and cumulatively exceed localized emission thresholds, resulting in significant unavoidable (Class I) cumulative air quality impacts. Cumulative impacts to greenhouse gas emissions would be similar for Route Alternative Option 3 as those described above for the Proposed Project. Therefore, the cumulative contribution to greenhouse gases of Route Alternative Option 3 would be significant and unavoidable (Class I) when combined with other development in the area generating greenhouse gases.

Partial Underground Alternative

Daily construction emissions for the Partial Underground Alternative would be greater than those presented in Section D.1, Air Quality, for the Proposed Project as a result of the underground construction. Therefore, the daily emissions from Route Alternative Option 3 would temporarily cause significant and unavoidable (Class I) regional impacts. Furthermore, the localized impacts for all phases of construction for this alternative, except for the underground segment of the 115 kV subtransmission segment, are identical to those for the Proposed Project. Therefore, the Partial Underground Alternative would cause significant and unavoidable (Class I) localized PM10 and PM2.5 impacts to sensitive receptors near the Banning Substation, the Zanja Substation, and selected areas of the 115 kV subtransmission line installation (above and underground).

Construction and operation of the Partial Underground Alternative would result in similar greenhouse gas emissions as that presented above for the Proposed Project. Therefore, the cumulative contribution to greenhouse gases of the Partial Underground Alternative would be significant and unavoidable when combined with the greenhouse gas emissions generated by other development in the area (Class I).

Cumulative Impacts. As analyzed in Section F.1.5, Cumulative Impact Analysis, the Partial Underground Alternative was found to cumulatively exceed regional emission thresholds and cumulatively exceed localized emission thresholds, resulting in significant unavoidable (Class I) cumulative air quality impacts. Cumulative impacts to greenhouse gas emissions for the Partial Underground Alternative would be similar to those described above for the Proposed Project. Therefore, the Partial Underground Alternative's cumulative contribution to greenhouse gases would be significant and unavoidable (Class I) when combined with other development in the area generating greenhouse gases.

No Project Alternative

If the No Project Alternative is selected, to address the overload conditions in the Maraschino Substation service area, SCE would add a third transformer and two 12 kV distribution lines (each approximately nine miles in length) at Maraschino Substation. These improvements would result in emissions from construction of the necessary facility upgrades, the likely use of emergency generators and other additional local electric generation, and additional transmission facility failures that would require emergency repair work. These activities would cause an increase in air pollutant emissions in the project area but are not expected to exceed daily regional thresholds (Class III).

As the No Project Alternative would require the operation of new electrical switchgear equipment and circuit breakers, an increase in escape of SF₆, would occur with the No Project Alternative similar to the Proposed Project. Therefore, the direct impact of the No Project Alternative greenhouse gas generation to climate change would be significant and unavoidable (Class I).

Cumulative Impacts. As analyzed in Section F.1.5, Cumulative Impact Analysis, the No Project Alternative's cumulative contribution to the combined effect of construction emissions impacting

SCAQMD daily regional thresholds and LST thresholds to nearby sensitive receptors would be less than significant during construction (Class III). As operation of the No Project Alternative would generate an increase in escape of SF₆, the direct impact of the No Project Alternative on greenhouse gases would be adverse and result in a significant unavoidable cumulative contribution (Class I) to climate change when combined with cumulative development also generating greenhouse gases.

ES.3.2 Land Use

ES.3.2.1 Proposed Project

The 115 kV subtransmission line replacement would cross the Sun Lakes Country Club golf course, run along the southern border of the AC Dysart Equestrian Park, and run approximately 0.3 mile west of Lion's Recreation Park. Installation of the fiber optic cable on the existing SCE poles and within existing underground conduit would occur adjacent to or through Norton Younglove Reserve, PGA of Southern California Golf Club, Oak Valley Golf Club, Sun Lakes Country Club golf course, Pass Valley Park, City of Redlands Community Park, Yucaipa Community Park, Flag Hill Veterans Memorial Park, and the San Bernardino National Forest Mill Creek Ranger Station. Mitigation presented in the Land Use analysis would require SCE to coordinate its construction schedule so that construction would not impact peak recreation uses or disrupt community facilities in order to reduce construction disturbances to sensitive land uses. Therefore, construction-related impacts to sensitive land uses would be reduced to a less-than-significant (Class II) level.

The proposed El Casco Substation would preclude the use of 28 acres within Norton Younglove Reserve. However, as part of the Proposed Project, SCE would provide the Park District with 28 acres of Public/Quasi-Public land of equivalent or better quality at a suitable location. Therefore, impacts resulting in loss of recreational lands would be less than significant (Class III).

Cumulative Impacts

As analyzed in Section F.1.5, Cumulative Impact Analysis, mitigation presented in the Land Use and Planning analysis would require SCE to coordinate its construction schedule so that construction would not impact peak recreation uses or disrupt community facilities in order to reduce construction disturbances to sensitive land uses. Therefore, the cumulative contribution of the Proposed Project to construction-related impacts to sensitive land uses would be reduced to a less-than-significant (Class II) level.

ES.3.2.2 Alternatives

CPUC's Northerly Route Alternative Option 3

Segment 1 of this alternative (the northerly El Casco-Banning 115 kV subtransmission line) would require construction of 9.5 miles of new 115 kV double-circuit subtransmission lines crossing a number of residential areas as well as crossing or passing other sensitive land uses, such as the Desert Lawn Memorial Park, Oak Valley Golf Club, Noble Creek Regional Park, Chavez Elementary School, and Beaumont High School. Mitigation presented in the Land Use and Planning analysis would require SCE to coordinate its construction schedule so that construction would not impact peak recreation uses or disrupt community facilities in order to reduce construction disturbances to sensitive land uses. Therefore, construction-related impacts to sensitive land uses from Route Alternative Option 3 construction would be reduced to a less-than-significant (Class II) level.

Similar to the Proposed Project, the El Casco Substation is included as part of Route Alternative Option 3. SCE would provide the Park District with 28 acres of Public/Quasi-Public land of equivalent or better quality at suitable location to reduce impacts to recreational lands. Impacts would be less than significant (Class III).

Cumulative Impacts. As analyzed in Section F.1.5, Cumulative Impact Analysis, mitigation presented in the Land Use analysis would require SCE to coordinate its construction schedule so that construction would not impact peak recreation uses or disrupt community facilities. This would reduce the Route Alternative Option 3 cumulative contribution to construction-related impacts to sensitive land uses to a less-than-significant (Class II) level.

Partial Underground Alternative

The Partial Underground Alternative 115 kV subtransmission line underground segment would cross Sun Lakes Country Club golf course, requiring extensive excavation and construction and disrupting use of the golf course for up to 10 months. While mitigation presented in the Land Use and Planning analysis would require SCE to coordinate its construction schedule with the Sun Lakes Country Club golf course, this impact would be significant and unavoidable (Class I).

Because the proposed El Casco Substation is included as part of the Partial Underground Alternative, SCE would provide the Park District with 28 acres of Public/Quasi-Public land of equivalent or better quality at a suitable location, therefore impacts to recreational lands would be less than significant (Class III).

Cumulative Impacts. While mitigation presented in the Land Use analysis would require SCE to coordinate its construction schedule so that construction would not impact recreational uses, construction would adversely impact the Sun Lakes Country Club golf course. However, because no cumulative projects identified in Section F would affect the Sun Lakes Country Club golf course, the Partial Underground Alternative's contribution to the overall cumulative disruption of recreational activities would be less than significant (Class II).

No Project Alternative

Under the No Project Alternative, the Proposed Project would not be implemented and, therefore, the impacts associated with the Proposed Project and alternatives as described in Section D.3 (Land Use) would not occur. As a result, construction and operational impacts would not occur to residential, commercial, agricultural, and recreational land uses adjacent to the Proposed Project or alternative routes. Upgrades at existing SCE facilities would have a minimal effect on surrounding land uses, but the construction of additional distribution lines could disturb land uses. It is not anticipated, however, that these impacts would be significant. Therefore, land use impacts associated with the No Project Alternative would be less than significant (Class III).

Cumulative Impacts. Under the No Project Alternative, no land use impacts associated with the Proposed Project or alternatives would occur. While modifications would be made at existing SCE facilities and additional distribution lines would be constructed, it is not anticipated that these activities would contribute to any cumulative impacts.

ES.3.3 Biological Resources

ES.3.3.1 Proposed Project

The majority of the Proposed Project, including the proposed El Casco Substation and 115 kV subtransmission line upgrades and replacements, would occur within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) area. The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan focusing on conservation of species and their associated habitats in western Riverside County. The MSHCP provides a streamlined pathway for environmental review and permitting processes for projects that affect biological resources. This is accomplished through established survey and analysis requirements that directly support the identified conservation goals of the MSHCP and that lead to development of a comprehensive biological resources reserve system that provides conservation of biological resources in perpetuity. Through compliance with the provisions of the MSHCP, project impacts to Covered Species and their habitats would be considered fully mitigated. However, further mitigation is recommended to reduce impacts to species not covered by the MSHCP, such as pre-construction surveys, avoidance and relocation, and restoration of impacted areas. All impacts to biological resources within the MSHCP area would be less than significant (Class II).

Power lines in general have the potential to impact bird species, particularly large species such as raptors, through electrocution. Additionally, species such as songbirds and waterfowl can collide with power lines. These risks are typically highest on lower-voltage lines (lower than 69 kV); however, mitigation is recommended that would have SCE construct the 115 kV subtransmission lines and structures to 2006 Avian Power Line Interaction Committee (APLIC) standards to reduce the risk of electrocution and/or collision to less-than-significant levels (Class II).

The fiber optic communication line would be attached to existing poles and installed in existing underground conduits and no impacts to biological resources would occur in relation to this component of the Proposed Project. Potential impacts to vegetation and wildlife would occur during installation of the microwave tower at the Mill Creek Communications Site. However, mitigation would require all construction activities to be limited to already-disturbed habitat at the site, and weed control measures and restoration of any additional project-related disturbance would ensure that impacts to the site would be less than significant (Class II).

Cumulative Impacts

As analyzed in Section F.1.5.3, Cumulative Impact Analysis, compliance with the MSHCP would mitigate impacts to biological resources in western Riverside County. However, the Proposed Project would be located both within and outside of the MSHCP planning area, and rapid ongoing development is impacting biological resources at a regional scale. Mitigation such as restoration/compensation, weed control, pre-construction surveys, avoidance and relocation of sensitive species, and reduction in lighting and noise would reduce impacts somewhat. However, cumulative impacts to biological resources, when combined with past, present, and reasonably foreseeable future projects in the area, would be considerable and unavoidable (Class I).

ES.3.3.2 Alternatives

CPUC's Northerly Route Alternative Option 3

The Route Alternative Option 3 115 kV subtransmission line route is the main difference between this alternative and the Proposed Project. However, the subtransmission line route is located within the same general region as the Proposed Project, and traverses the same vegetation and community types as the Proposed Project. As such, impacts to biological resources would be the same for Route Alternative Option 3 as for the Proposed Project, and would be less than significant with MSHCP compliance and mitigation, including restoration/compensation, weed control, pre-construction surveys, avoidance and relocation of sensitive species, and reduction in lighting and noise (Class II).

Cumulative Impacts. As discussed above for the Proposed Project, ongoing rapid development in northwestern Riverside County and southwestern San Bernardino County has a regional significant impact on biological resources. Mitigation such as restoration/compensation, weed control, pre-construction surveys, avoidance and relocation of sensitive species, and reduction in lighting and noise would be implemented, but impacts to biological resources would be cumulatively significant and unavoidable (Class I).

Partial Underground Alternative

The Partial Underground Alternative is identical to the Proposed Project with the exception of an approximately one-mile segment of the subtransmission line route where it passes through the Sun Lakes community. This segment of the line would be placed underground in two concrete-encased duct banks. Therefore, impacts to biological resources would be the same as for the Proposed Project in all areas except the underground portion, and would be less than significant with MSHCP compliance and the implementation of mitigation as discussed above (Class II).

The underground portion of this alternative is located in an existing subtransmission ROW in a developed area consisting of a golf course surrounded by homes. This area is dominated by turf grass and ornamental plantings. Although golf courses typically support some wildlife, species diversity is generally lower in these areas due to routine maintenance, herbicide and chemical fertilizer use, and the ongoing level of human activity. No additional impacts to biological resources are expected with the Partial Underground Alternative as compared to the Proposed Project.

Cumulative Impacts. Just as with the Proposed Project, the Partial Underground Alternative would combine with the effects of past, present, and reasonably foreseeable future projects in the region. Despite compliance with the MSHCP and the implementation of mitigation such as restoration/compensation, weed control, pre-construction surveys, avoidance and relocation of sensitive species, and reduction in lighting and noise, cumulative impacts of the Partial Underground Alternative would be significant and unavoidable (Class I).

No Project Alternative

Under the No Project Alternative, new electrical facilities including substation upgrades and two new distribution lines would be required. Although it is currently unknown where the 12 kV distribution lines would be constructed, it can be reasonably assumed that construction of these lines would likely result in similar impacts as the Proposed Project. Construction activities associated with the new 12 kV lines would likely occur in habitat similar to the Proposed Project as the project region contains large areas of similar habitat. Based on the types of activities required to construct the new 12 kV lines, the

impacts to biological resources would be similar to the Proposed Project. However, it is possible that the new lines could be constructed in areas that support higher densities of sensitive plants or wildlife, or occur in MSHCP criteria cells that require different mitigation or reporting. It is also possible that the route would occur in areas that would not be fully mitigated under the current MSHCP guidelines.

Cumulative Impacts. It is unknown what types of impacts to biological resources would occur from the No Action Alternative, as the locations of the new distribution lines is currently unknown. Based on the types of activities required to construct the new 12 kV lines, the impacts to biological resources would likely be similar to the Proposed Project. Furthermore, it is also possible that the required 12 kV route would cross through areas supporting sensitive habitat. Therefore, it is likely that the impacts of the No Project Alternative, when combined with impacts from past, present, or reasonably foreseeable future projects, would result in cumulatively significant and unavoidable biological impacts (Class I).

ES.3.4 Cultural Resources

ES.3.4.1 Proposed Project

One previously recorded cultural resource is located within the proposed El Casco Substation site and 20 previously detected cultural resources are located along the proposed 115 kV subtransmission line route. None of these resources are recommended eligible for listing on the National Register of Historic Places (NRHP), or are considered to be cultural resources for the purposes of CEQA. There are 37 cultural resources recorded along the El Casco Substation to San Bernardino Substation fiber optic segment, with five of these sites listed on the NRHP. As the Proposed Project would require grading within substation sites and within existing subtransmission line ROWs, mitigation presented within the cultural resources analysis would ensure that all ground-disturbing activities would be monitored by a qualified archaeologist, that known and recorded cultural resources will be avoided during construction, operation and maintenance, and would ensure that construction is temporarily halted in the event that an unanticipated archaeological resource is discovered. This mitigation would ensure that impacts to cultural resources are less than significant (Class II).

Impacts would occur to paleontological resources within portions of the Proposed Project where construction activities would excavate sensitive sedimentary units. SCE commits to fossil collection, salvage, and curation in APMs to reduce the impacts of construction on significant paleontological resources. In addition, mitigation is included in the cultural resources analysis requiring an inventory of paleontological resources, the development of a paleontological monitoring and treatment plan, the requirement of a monitor for paleontology during construction to conduct paleontological data recovery, and the training of construction personnel to identify paleontological resources. These measures would ensure that impacts are mitigated to less-than-significant levels (Class II).

Cumulative Impacts. Unknown and potentially significant cultural resources could exist within areas of ground disturbance during construction of the Proposed Project. However, as construction would preclude other construction projects from occurring within the same site, the procedures and provisions required by mitigation measures presented in the cultural resources analysis would ensure that the Proposed Project's cumulative contribution to previously undetected cultural resources would be less than significant (Class II).

ES.3.4.2 Alternatives

CPUC's Northerly Route Alternative Option 3

One portion of the Route Alternative Option 3 subtransmission line is located on the south side of Summit Drive in the City of Banning, and therefore passes through a potential historic district. Currently, this ROW contains a City of Banning distribution line on wood poles. The City of Banning street light poles are tapered metal poles capped with ball finials. Each pole has one arm that holds the light. Currently, there are no street light poles along Summit Drive. Rather, the street light arms are located on the existing distribution line poles. Replacement of the current wood poles with taller steel poles would have a visual impact on a neighborhood that is potentially eligible for the California Register of Historic Resources (CRHR) as a historic district due to the removal of the existing street lights. Inadvertent damage could also occur to mature trees along the street if the new poles are placed near them, thereby adversely impacting the historic qualities of the potential district. The siting of new steel poles for the 115 kV subtransmission line associated with this alternative would result in a significant impact resulting from the removal of, or damage to, elements (i.e., street lights and existing mature trees) that could contribute to the integrity of a potential historic district. Mitigation presented within the cultural resources analysis to reduce cultural resource impacts associated with Route Alternative Option 3 is identical to that described above for the Proposed Project. However, even with this mitigation incorporated, cultural resource impacts associated with Route Alternative Option 3 would be significant and unavoidable (Class I).

Disturbance to archaeological and paleontological resources resulting from Route Alternative Option 3 is similar to those described above for the Proposed Project. Mitigation presented within the cultural resources analysis to reduce cultural resource impacts associated with Route Alternative Option 3 is identical to that described above for the Proposed Project. This mitigation would ensure that impacts to archaeological and paleontological resources are less than significant (Class II).

Cumulative Impacts. The siting of new steel poles for the 115 kV subtransmission line associated with this alternative along Summit Drive in the City of Banning would result in a significant impact (Class I) resulting from the removal of, or damage to, elements (i.e., street lights and existing mature trees) that could contribute to the integrity of a potential historic district. It is likely that any other project in the same area as the alternative also would have significant impacts to the historic resources of the potential district. The implementation of this alternative along with other projects in the area would have a significant cumulative impact on historic resources (Class I).

Partial Underground Alternative

Although no known archaeological or paleontological resources were identified on the approximately one-mile section of the Partial Underground Alternative, and this change from the overhead alignment in the Proposed Project does not add any new archaeological or paleontological impacts, cultural resource impacts for the remainder of the route would be similar to that described above for the Proposed Project. Mitigation presented within the cultural resources analysis to reduce archaeological and paleontological resource impacts associated with the Partial Underground Alternative is identical to that described above for the Proposed Project. This mitigation would ensure that impacts to archaeological and paleontological resources are less than significant (Class II).

Cumulative Impacts. Cumulative cultural resource impacts associated with the Partial Underground Alternative would be identical to those presented above for the Proposed Project. Mitigation measures presented in the cultural resources analysis would ensure that the Partial Underground Alternative

cumulative contribution to previously undetected cultural resources would be less than significant (Class II).

No Project Alternative

Under the No Project Alternative, the implementation of any new electric facilities (i.e., upgrades to existing systems or the development of new systems) may result in impacts to cultural and paleontological resources that would result directly from ground-disturbing activities associated with construction. New adverse impacts to known CRHR-listed or CRHR-eligible sites and sensitive paleontological deposits resulting from activities such as tower construction, pole replacement, grading and use of new access roads, trenching, reconductoring, and materials laydown may occur. These impacts would be similar to Proposed Project impacts and would likely require similar mitigation measures to reduce impacts to less than significant levels (Class II).

Cumulative Impacts. Cumulative cultural and paleontological resource impacts for the No Project Alternative are the same as those identified for the Proposed Project, because the No Project Alternative would result in the eventual development of improved subtransmission line systems within the project area. Therefore, cumulative impacts from the No Project Alternative to cultural resources would be less than significant with mitigation incorporated (Class II).

ES.3.5 Geology and Soils

ES.3.5.1 Proposed Project

Construction and operation of the Proposed Project could result in the following specific geologic and soil impacts:

- Excavation associated with tower foundation construction and grading for temporary and permanent access roads and construction activities in areas of hilly or sloping terrain could result in increased slope instability, landslides, soil creep, or debris flows during construction.
- Soils with moderate to high potential for corrosion exist along the proposed route. Depending on the degree of corrosivity of subsurface soils, concrete, reinforcing steel in concrete structures, and bare-metal structures exposed to these soils could deteriorate, eventually leading to structural failures.
- The El Casco Substation site, the Mill Creek Communications site, and portions of the proposed 115 kV subtransmission route are located on or cross over sloping areas that are underlain by geologic formations prone to landslides.
- Moderate to strong groundshaking would be experienced along all portions of the project route in the event of an earthquake on the faults in the Project area.
- Portions of the proposed 115 kV subtransmission line and fiber optic cable route would cross active faults and fault zones.
- Expansive soils located along the ROW and substation sites may cause differential and cyclical foundation movements that can cause damage and/or distress to structures and equipment.

SCE has committed to implementing APMs, as identified in Section B (Project Description), to perform geotechnical studies to identify site-specific geologic conditions prior to final design of substation facilities and subtransmission line tower foundations. These APMs are considered part of the Proposed Project, and implementation of these measures would be monitored by CPUC and SCE. However, these impacts would be significant without mitigation. Mitigation presented in the Geology and Soils analysis would add specific requirements to the planned geotechnical investigations prior to final project design and would reduce these impacts to a less-than-significant level (Class II).

In addition to the above discussed impacts, excavation and grading for tower and substation foundations, work areas, and access roads could loosen soil or remove stabilizing vegetation and expose areas of loose soil. These areas, if not properly stabilized during construction, could be subject to increased soil loss and erosion by wind and stormwater runoff. SCE has committed to perform subtransmission line and substation construction activities in accordance with the soil erosion/water quality protection measures specified in the Construction Storm Water Pollution Prevention Plan (SWPPP). However, to ensure erosion impacts are minimized, mitigation presented in the Geology and Soils analysis would ensure that potential impacts from erosion related to grading and use of access roads and work areas in areas of moderate to severe erosion potential during construction would be reduced to a less-than-significant level (Class II).

Cumulative Impacts. The potential for the Proposed Project to combine with similar effects of other projects to create cumulative geological impacts would only occur if other projects were implemented on the same slopes at the same time as the Proposed Project. However, as construction of the Proposed Project would preclude other projects from being implemented concurrently on the same slopes, the Proposed Project would not have the potential to combine with similar effects from other projects and would not be cumulatively considerable. Therefore, less than significant cumulative impacts (Class III) would occur.

ES.3.5.2 Alternatives

CPUC's Northerly Route Alternative Option 3

This alternative traverses the same types of soils as the Proposed Project and therefore has the same potential for construction and operational geologic and soil impacts as that of the Proposed Project, as described above. These impacts would be significant without mitigation. Mitigation presented in the Geology and Soils analysis would add specific requirements to all planned geotechnical investigations prior to final project design and would reduce these impacts to a less-than-significant level (Class II).

Cumulative Impacts. This alternative would construct similar subtransmission line infrastructure as the Proposed Project and therefore has the same potential for cumulative geologic and soil construction impacts as that of the Proposed Project, as described above. As construction of Route Alternative Option 3 features would preclude other projects from being implemented concurrently on the same slopes, the Proposed Project would not have the potential to combine with similar effects from other projects and would not be cumulatively considerable. Therefore, less-than-significant cumulative impacts (Class III) would occur.

Partial Underground Alternative

This alternative would have identical Geology and Soils impacts as those identified for the Proposed Project at the substation sites, the Mill Creek Communication site, and the fiber optic communications system and would require the same mitigation recommended for the Proposed Project. This alternative would also result in identical impacts as the Proposed Project along the subtransmission line route. Installing a one-mile segment of the subtransmission line underground would not avoid or reduce impacts to geology and soils; however, it may result in increased potential for certain geology and soils impacts. These impacts would be significant without mitigation. Mitigation presented in the Geology and Soils analysis would add specific requirements to all planned geotechnical investigations prior to final project design and would reduce these impacts to a less-than-significant level (Class II).

Cumulative Impacts. Installing a one-mile segment of the subtransmission line underground would not alter project-specific impacts to geology and soils, as described above for the Proposed Project. Therefore, less than significant geology and soils cumulative impacts (Class III) would occur with Partial Underground Alternative construction.

No Project Alternative

If the No Project Alternative is selected, to address the overload conditions in the Maraschino Substation service area, SCE would add a third transformer and two 12 kV distribution lines (each approximately nine miles in length) at Maraschino Substation. Although it is currently unknown where the 12 kV distribution lines would be constructed, it can be reasonably assumed that construction of these lines would result in similar impacts as the Proposed Project. Any construction activities that require grading and excavation would have the potential to result in similar impacts related to soils (inducing slope instability, accelerating erosion, damage from corrosive, loose, compressible or unstable soils), and project structures would be susceptible to seismic-related impacts such as groundshaking, liquefaction, and surface fault ruptures. These impacts would require mitigation similar to the Proposed Project depending on the results of site-specific geotechnical investigations to characterize site-specific soils and seismic conditions.

Cumulative Impacts. Although it is currently unknown where the 12 kV distribution lines would be constructed under the No Project Alternative scenario, it can be reasonably assumed that construction of these lines would result in similar impacts as the Proposed Project, and therefore would not contribute to potentially significant cumulative geology and soils impacts.

ES.3.6 Hazards and Hazardous Materials

Two separate issues are addressed under public health and safety: hazardous materials and contamination, and electric and magnetic fields (EMF).

ES.3.6.1 Proposed Project

To minimize the potential for hazardous or flammable material spills or releases during construction, SCE and its contractors would implement Best Management Practices (BMPs) that include preparation of a Spill Prevention, Control, and Countermeasures Plan (SPCC); a Stormwater Pollution Prevention Plan (SWPPP); and a Fire Management Plan. To further reduce impacts, mitigation presented in the Hazards and Hazardous Materials analysis would include an environmental training and monitoring program, proper disposal of construction waste requirements, and emergency spill supplies and equipment requirements. These measures, which will also be required as part of the SWPPP required for the Proposed Project, would be implemented to reduce impacts from the transport, use, or disposal of hazardous materials to a less-than-significant level (Class II).

The proposed subtransmission line would cross several roadways, including: State Route 60 (SR-60), SR-79, San Timoteo Canyon Road, South Highland Springs Avenue, and several local roads. Construction activities associated with stringing the power line over these roads would result in temporary (approximately 10-minute) road closures. The temporary closures may impede traffic flow for short durations, and impact emergency evacuation routes. The inclusion of mitigation within the Transportation and Traffic analysis would ensure emergency response access would be available at all times through construction work zones. Therefore, emergency evacuation routes would not be affected and any potential impacts would be reduced to a less-than-significant level (Class II).

Construction activities could potentially result in the combustion of vegetation located close to the construction site. During operation of the Proposed Project, power lines may pose a fire hazard if a conducting object, such as a tree limb, comes in close proximity to a line or if a live-phase conductor falls to the ground. However, the risk associated with fire as a result of the Proposed Project construction and operation was found to be less than significant (Class II) with the implementation of mitigation presented in the Hazards and Hazardous Materials analysis requiring the preparation and implementation of a fire management plan, County Fire Department review of construction methods, requirements of safe welding procedures, and fire preventive construction equipment requirements.

Cumulative Impacts

Cumulative project development that would occur within 0.25 mile of the Proposed Project route would likely also involve the use of hazardous materials and would have the potential to result in similar impacts as the Proposed Project. However, as the Proposed Project includes BMPs and mitigation measures to reduce the potential for an accidental release of hazardous materials to occur, the Proposed Project's contribution to a potential cumulative hazardous material impact would be less than significant after mitigation (Class II). Cumulative development would also increase the potential for a fire to occur within the project area. Therefore, the Proposed Project, when combined with the effects of other past and reasonably foreseeable project, would contribute to a significant cumulative fire hazards impact (Class I).

ES.3.6.2 Alternatives

CPUC's Northerly Route Alternative Option 3

This alternative's potential for spills or releases of hazardous and flammable materials used during construction would be identical to those described above for the Proposed Project. BMPs and mitigation required for Route Alternative Option 3 would be implemented to reduce impacts from the transport, use, or disposal of hazardous materials to a less-than-significant level (Class II).

The Route Alternative Option 3 subtransmission line would cross several roadways, including: I-10, SR-60, SR-79, San Timoteo Canyon Road, South Highland Springs Avenue, and several local roads. The inclusion of mitigation identified within the Transportation and Traffic analysis would ensure that emergency response access would be available at all times through construction work zones. Therefore, emergency evacuation routes would not be affected and any potential impacts would be reduced to a less-than-significant level (Class II).

High fire risk is noted at the El Casco Substation and Zanja Substation sites and along the El Casco-Banning route between mileposts 0 and 3.17 and between mileposts 9.2 and 11 (approximately). High fire risk along the El Casco-Maraschino route is noted between mileposts 0 and 5.5 (approximately). The risk associated with fire as a result of the Route Alternative Option 3 construction and operation was found to be less than significant (Class II) with the implementation of mitigation presented in the Hazards and Hazardous Materials analysis requiring the preparation and implementation of a fire management plan, County Fire Department review of construction methods, requirements of safe welding procedures, and fire preventive construction equipment requirements.

Cumulative Impacts. The cumulative hazards and hazardous materials impacts associated with Route Alternative Option 3 would be similar to those presented above for the Proposed Project. Route Alternative Option 3 would include BMPs and mitigation measures to reduce the potential for an accidental release of hazardous materials to occur. Therefore, this alternative's contribution to a

potential cumulative hazardous material impact would be less than significant after mitigation (Class II). Because cumulative development would increase the potential for a fire to occur within area, the Route Alternative Option 3 cumulative contribution to fire hazard impacts would be significant (Class I).

Partial Underground Alternative

The Partial Underground Alternative's potential for spills or releases of hazardous and flammable materials used during construction would be identical to that described above for the Proposed Project. BMPs and mitigation required for the Partial Underground Alternative would be implemented to reduce impacts from the transport, use, or disposal of hazardous materials to a less-than-significant level (Class II). Furthermore, because the Partial Underground Alternative would travel the identical subtransmission line route as the Proposed Project, the impact to emergency evacuation routes and fire risk would be identical to those presented above for the Proposed Project (Class II).

Cumulative Impacts. The cumulative hazards and hazardous materials impacts associated with the Partial Underground Alternative would be similar to those presented above for the Proposed Project. Thus, the Partial Underground Alternative contribution to a potential cumulative hazardous material impact would be less than significant after mitigation (Class II), and the cumulative contribution to fire hazard impacts would be significant (Class I).

No Project Alternative

Without the Proposed Project to address the overload conditions in the Maraschino Substation service area, SCE would add a third transformer and two 12 kV distribution lines (each approximately nine miles in length) at Maraschino Substation. Although it is currently not known precisely where the 12 kV distribution lines would be constructed, it can be reasonably assumed that construction of these lines would result in similar impacts as the Proposed Project, and would require the same or similar mitigation measures as discussed above for the Proposed Project. Potential routes for these distribution lines would have to be investigated to determine if the potential sites are located near schools, within high fire hazard areas, or on properties that are included on a list of hazardous materials sites. Depending on the results of such investigations, additional mitigation measures, such as remediation of contaminated sites prior to construction or additional measures to reduce the risk of upset of hazardous materials or igniting a fire, may be required.

Cumulative Impacts. Although it is currently unknown where the required No Project Alternative 12 kV distribution lines would be constructed, it can be reasonably assumed that construction of these lines would result in similar impacts as the Proposed Project. Therefore, the No Project Alternative contribution to a potential cumulative hazardous material impact would be less than significant after mitigation (Class II) and the cumulative contribution to fire hazard impacts would be significant (Class I).

ES.3.6.3 EMF Issues

Recognizing that there is a great deal of public interest and concern regarding potential health effects from exposure to electric and magnetic fields (EMFs) from power lines, the EIR provides information regarding EMF associated with electric utility facilities and the potential effects of the Proposed Project related to public health and safety. Potential health effects from exposure to *electric fields* from power lines (effect 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) are typically not of 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* (invisible fields created by moving charges) from power lines. However, the EIR does not consider magnetic fields in the context of CEQA and determination of environmental impact. This is because (a) there is no agreement among scientists that EMF does create a potential health risk, and (b) there are no defined or adopted CEQA standards for defining health risk from EMF. As a result, EMF information is presented for the benefit of the public and decisionmakers.

Proposed Project

For the purpose of examining EMFs, SCE divided the Proposed Project into five segments, considering changes in characteristics of the subtransmission line corridor (i.e., changes in the number of transmission lines in the corridor, changes to structure type). SCE’s magnetic field computer modeling results graph the calculated magnetic field strength, without the Proposed Project (existing conditions) and with the Proposed Project, for an area extending 100 feet from each side of the subtransmission line. These results are shown below in Table ES-1.

Table ES-1. Comparison of Baseline and Expected Magnetic Fields Levels (mG) – Proposed Project¹

| Segment ID | Location | Left Side of ROW ^{2,3} | | | Right Side of ROW ^{2,3} | | |
|------------|---|---------------------------------|----------|--------|----------------------------------|----------|--------|
| | | Existing | Proposed | Change | Existing | Proposed | Change |
| 1 | El Casco Substation to Maraschino Loop West | 10.2 | 2.1 | -8.1 | 10.2 | 4.3 | -5.9 |
| 2 | Maraschino Loop West | 6.4 | 7.2 | 0.8 | 6.1 | 6.9 | 0.8 |
| 3 | Maraschino Loop South | 0 | 2.3 | 2.3 | 0 | 2.2 | 2.2 |
| 4 | El Casco-Banning between Maraschino Loop West and Maraschino Loop South | 0 | 5.1 | 5.1 | 0 | 4.8 | 4.8 |
| 5 | Maraschino Loop South to Banning Substation | 0 | 4.1 | 4.1 | 0 | 2.7 | 2.7 |

Source: SCE, 2007a

1. Following completion of Phase 2

2. As measured 50 feet from the subtransmission line

3. mG = milliGauss

Mitigation proposed within the EMF analysis for reducing magnetic fields for the Proposed Project is consistent with the CPUC’s Interim EMF Opinion Decision No. 93-11-013 (“1993 CPUC Decision”) and also with recommendations made by the U.S. National Institute of Environmental Health Sciences. The recommendations presented in the analysis meet CPUC-approved EMF Design Guidelines as well as all national and State safety standards for new electric facilities. Furthermore, the EMF Analysis presents mitigation to reduce impacts resulting from potential high frequency radio and television interference, and induced currents and voltages on conducting objects near the proposed subtransmission line to a less-than-significant (Class II) level. EMF impacts to the operation of cardiac pacemakers was found to be less-than-significant (Class III).

Alternatives

CPUC’s Northerly Route Alternative Option 3

As shown in the EMF analysis, there are no noticeable changes in magnetic fields by adding the Route Alternative Option 3 line within the existing SCE Devers-Vista 220 kV ROW. The reconductoring

activities of 115 kV subtransmission line proposed for Route Alternative Option 3 are limited in scope and do not provide significant opportunities to implement magnetic field reduction measures. However, implementation of the Route Alternative Option 3 would result in higher magnetic fields compared to the Proposed Project for Segment 5. The Proposed Project design has lower magnetic fields mainly due to the following design differences: the double circuit design of the Proposed Project has less phase-to-phase distance, is taller, and has phasing arrangements that reduce magnetic fields. The EMF Analysis presents mitigation to reduce potential high frequency radio and television interference and induced currents and voltages on conducting objects near the proposed subtransmission lines impacts to a less-than-significant (Class II) level. EMF impacts to the operation of cardiac pacemakers was found to be less-than-significant (Class III).

Partial Underground Alternative

As discussed in the EMF analysis, EMF levels along the underground portion of the ROW within the Sun Lakes Community would be reduced compared to the Proposed Project. However, the remainder of the subtransmission line route would result in identical EMF levels as presented above in Table ES-1. The EMF Analysis presents mitigation to reduce potential high frequency radio and television interference and induced currents and voltages on conducting objects near the proposed subtransmission lines impacts to a less-than-significant (Class II) level. EMF-related impacts to the operation of cardiac pacemakers was found to be less-than-significant (Class III).

No Project Alternative

Under the No Project Alternative, neither the Proposed Project nor its alternatives would be built and none of the impacts described above would occur. However, without the Proposed Project or alternatives, overload of the existing capacities would occur at five distribution stations that are currently served by the Vista and Devers 115 kV Systems. To address the overload conditions in the Maraschino service area, SCE would add a third transformer and two 12 kV distribution lines (each about nine miles in length). Impacts with regard to radio and television interference, induced shock, and effects on pacemakers from two 12 kV distribution lines would likely be incrementally less than those of the Proposed Project or alternatives which would each be of higher voltage than these distribution lines.

ES.3.7 Hydrology and Water Quality

Proposed Project

Surface water and groundwater quality could potentially be impacted during construction activities if any potentially harmful materials are accidentally spilled. SCE has committed to implementing APMs, as identified in Section B (Project Description). These measures include: avoiding the potential to degrade surface water quality by reducing the potential for erosion and sedimentation to occur during construction; requiring that the flood carrying capacity of San Timoteo Creek be maintained if construction required the creek to be altered; require training construction workers in spill prevention and response procedures; requiring excess water and liquid concrete from pole foundations be directed to bermed areas where water could evaporate and the set concrete be removed without impacts to surface waters; requiring that all horizontal directional drilling (HDD) be performed in accordance with NPDES requirements; and require preparation and implementation of a Hazardous Substance Control and Emergency Response Plan. In addition, SCE has committed to perform subtransmission line and substation construction activities in accordance with the soil erosion/water quality protection measures specified in the Construction Stormwater Pollution Prevention Plan (SWPPP). Furthermore, the

Hydrology and Water Quality analysis includes mitigation to further reduce the potential for a release during HDD activities including: prevention of frac-out, implement HDD BMPs, prepare and implement frac-out response plan, and develop and implement a groundwater remediation plan. These mitigation measures add specific requirements to the planned APMs, and would ensure that impacts to water quality as a result of construction activities are reduced to a less-than-significant level (Class II).

Portions of the subtransmission line route are in locations that are susceptible to flooding when heavy rains occur within steep mountainous areas. The placement of towers in these areas is not expected to cause diversion of flows or increased flood risk for adjacent property. However, mitigation is included in the Hydrology and Water Quality analysis requiring that all aboveground structures shall be protected against flood and erosion damage to reduce any potential flood impacts to a less-than-significant level (Class II).

Cumulative Impacts

Over time sediment and hazardous materials from cumulative project development would be expected to eventually accumulate sediment and degrade water quality in downstream water bodies such as San Timoteo Creek, the Santa Ana River, Potrero Creek, the San Jacinto River, Canyon Lake, Lake Elsinore, the San Gorgonio River, Whitewater River, and the Salton Sea. Therefore, the Proposed Project, when combined with the effects of other past and reasonably foreseeable project, would contribute to significant unavoidable cumulative hydrology and water quality impacts (Class I).

Alternatives

CPUC's Northerly Route Alternative Option 3

Route Alternative Option 3 would traverse the same types of soils and slopes as the Proposed Project and therefore would have the same potential during construction to affect surface water and groundwater quality. The Hydrology and Water Quality analysis includes APMs and mitigation reducing potential water quality impacts from erosion and hazardous material release to a less-than-significant level (Class II). Furthermore, while Route Alternative Option 3 proposes an alternate subtransmission line route, mitigation is included in the Hydrology and Water Quality analysis requiring that all aboveground structures shall be protected against flood and erosion damage to reduce any potential flood impacts to proposed structures to a less-than-significant level (Class II).

Cumulative Impacts. Cumulative impacts associated with Route Alternative Option 3 would be identical to those presented above for the Proposed Project. The construction and operation of Route Alternative Option 3, when combined with the effects of reasonably foreseeable projects in the area, would contribute to significant unavoidable cumulative hydrology and water quality impacts (Class I).

Partial Underground Alternative

Excavation and trenching activities required to install the underground segment of this alternative would be much more intensive and of substantially longer duration (10 months for the underground segment) than that of the above ground portions of the subtransmission route. These activities would result in areas of exposed and stockpiled soil that would be subject to potential erosion. Although there are no natural watercourses or drainages located along this portion of the route, drainage from the construction area would run into the sewer system within the roads of the Sun Lakes Community, which would ultimately travel downstream to other drainages within the watershed. The Hydrology and Water Quality analysis includes mitigation and APMs reducing potential water quality impacts from soil erosion and hazardous

material release to watersheds and groundwater to a less-than-significant level (Class II). The remaining Partial Underground Alternative activities would result in identical surface water, groundwater, and flooding impacts as those presented above for the Proposed Project, resulting in less-than-significant impacts after the implementation of APMs and mitigation (Class II).

Cumulative Impacts. Cumulative impacts associated with the Partial Underground Alternative would be identical to those presented above for the Proposed Project. The construction and operation of the Partial Underground Alternative, when combined with the effects of reasonably foreseeable projects in the area, would contribute to significant unavoidable cumulative hydrology and water quality impacts (Class I.)

No Project Alternative

Although it is currently unknown where the 12 kV distribution lines would be constructed, it can be reasonably assumed that construction of these lines would result in similar hydrology and water quality impacts as presented above for the Proposed Project. Any construction activities that require grading and excavation would have the potential to degrade surface water quality through accidental releases of hazardous materials if such activities are located near or within a drainage or watercourse. Mitigation and BMPs similar to that presented for the Proposed Project would be required to reduce No Project Alternative hydrology and water quality impacts to a less-than-significant level (Class II).

Cumulative Impacts. Cumulative impacts associated with the No Project Alternative would be identical to those presented above for the Proposed Project. The construction and operation of required No Project Alternative features, when combined with the effects of reasonably foreseeable projects in the area, would contribute to significant unavoidable cumulative hydrology and water quality impacts (Class I).

ES.3.8 Noise

ES.3.8.1 Proposed Project

SCE has committed to implementing three APMs to reduce noise and vibration impacts during construction. The implementation of these APMs would reduce temporary construction noise and vibration impacts associated with the Proposed Project to a less-than-significant (Class III) level.

The proposed 115 kV subtransmission line would be routed through the Cities of Banning, Beaumont, and unincorporated portions of Riverside County within approximately 0.25 mile (1,320 feet) of residential homes in the vicinity of the Maraschino Substation (City of Beaumont); residential homes near Manzanita Park Road (County of Riverside); residential neighborhoods between Highland Springs Avenue and Highland Home Road (City of Banning); and isolated residential homes south of the existing Banning Substation (City of Banning). While the Proposed Project would be located within an existing SCE ROW through these areas, the existing 115 kV line only carries current during emergency events, and therefore does not contribute noise to the ambient noise conditions of the area. Operation of the Proposed Project would introduce a permanently load carrying line and regular corona discharge noise to the ROW through these residential neighborhoods not currently exposed to regular corona noise. As such, corona noise would be a significant unavoidable impact of the Proposed Project (Class I).

Cumulative Impacts

Construction activities associated with other projects located within 0.25 mile of the Proposed Project that would occur at the same time as the Proposed Project could possibly violate local noise standards.

However, the implementation of APMs associated with the Proposed Project to reduce construction noise and vibration would result in a less-than-significant (Class III) cumulative contribution to construction noise impacts. Residential receptors located directly adjacent to the Proposed Project would be impacted by operational noise from the subtransmission line ROW. Cumulative development within 600 feet of these receptors would combine with this impact to further increase ambient noise levels. Therefore, the effect of operational corona noise combined with other proposed development projects located within close proximity to the proposed subtransmission line would be cumulatively significant and unavoidable (Class I).

ES.3.8.2 Alternatives

CPUC's Northerly Route Alternative Option 3

Receptors located directly adjacent to construction sites along the 115 kV subtransmission line route proposed for the Route Alternative Option 3 would experience temporary significant noise and vibration impacts from construction activities. SCE has committed to implementing three APMs to reduce noise and vibration impacts associated with construction. The implementation of these APMs would reduce temporary construction noise impacts associated with Route Alternative Option 3 to a less-than-significant (Class III) level.

Segments of the Route Alternative Option 3 proposed 115 kV subtransmission line would expose receptors to an increase in corona noise over existing conditions. This impact would be a significant unavoidable impact of the Route Alternative Option 3 (Class I).

Cumulative Impacts. Cumulative construction impacts for the Route Alternative Option 3 would be similar to that presented above for the Proposed Project. Construction activities associated with other projects located within 0.25 mile of Route Alternative Option 3 construction sites that would occur at the same time could possibly violate local noise standards. However, the implementation of APMs would result in a less-than-significant (Class III) cumulative contribution to construction noise impacts. Cumulative development within 600 feet of the Route Alternative Option 3 subtransmission line ROW could combine with corona noise to further increase ambient noise levels. Therefore, cumulatively significant and unavoidable (Class I) permanent noise impacts could occur.

Partial Underground Alternative

Implementation of the Partial Underground Alternative would result in a large amount of heavy construction equipment along the underground segment of the route, and receptors located directly adjacent to construction sites would experience temporary significant noise and vibration impacts from construction activities. It should be noted that construction of this alternative would take 10 months. Therefore, construction noise impacts to surrounding receptors along the underground segment would occur within this small isolated area and would occur for an extended duration. However, due to the temporary nature of construction noise and the implementation of APMs to reduce construction noise, construction noise impacts associated with the Partial Underground Alternative would be less than significant (Class III).

The permanent noise sources that would occur with operation of the Partial Underground Alternative are limited to the corona effect of the overhead subtransmission line and routine inspection and maintenance of the line. For the segment of proposed new 115 kV subtransmission line to be located underground, residential receptors located along the one-mile portion of the alignment through the Sun Lakes community beginning just east of Highland Springs Avenue and ending just east of S. Riviera Avenue and west of S. Highland Home Road would not experience any operational corona discharge

noise. However, because the remaining portion of the proposed 115 kV subtransmission line east of the underground location would introduce a permanent load-carrying line and regular corona discharge noise to adjacent residential receptors not currently exposed to regular corona noise, corona noise would be a significant unavoidable (Class I) impact of the Partial Underground Alternative in those areas.

Cumulative Impacts. Cumulative construction impacts for the Partial Underground Alternative would be similar to those presented above for the Proposed Project. Construction activities associated with other projects located within 0.25 mile of Partial Underground Alternative construction sites that would occur at the same time could possibly violate local noise standards. However, the implementation of APMs would result in a less-than-significant (Class III) cumulative contribution to construction noise impacts. Cumulative development within 600 feet of the Partial Underground Alternative subtransmission line ROW experiencing a new source of permanent corona noise could combine with other proximate development to further increase ambient noise levels. Therefore, cumulatively significant and unavoidable (Class I) permanent noise impacts could occur.

No Project Alternative

To address the overload conditions in the Maraschino Substation service area, SCE would add a third 28 MVA transformer and two 12 kV distribution lines (each approximately nine miles in length) at Maraschino Substation in 2007. In addition, switchrack rebuilds at Banning and Zanja Substations would need to be completed. These activities would generate short-term temporary construction noise impacts to surrounding receptors. The implementation of APMs similar to those for the Proposed Project would be required to reduce temporary construction noise impacts associated with the No Project Alternative to a less-than-significant (Class III) level.

The No Project Alternative would introduce a permanently load carrying line and regular corona discharge noise to residential receptors along the Banning to Maraschino line segment not currently exposed to regular corona noise. Furthermore, the location of the required new 12 kV lines is unknown; however, it is likely that they would also impact sensitive receptors. Therefore, the No Project Alternative at some point would result in a new permanent source of corona noise, and is considered a significant unavoidable (Class I) impact of the No Project Alternative.

Cumulative Impacts. Construction of required No Project Alternative upgrades could combine with other proximate construction projects to create cumulative construction noise impacts. However, it is assumed that APMs presented for the Proposed Project to reduce noise impacts would be implemented by SCE during the construction of electric facility upgrades required under the No Project Alternative. The implementation of these APMs would reduce the No Project Alternatives contribution to cumulative construction noise to a less-than-significant (Class III) level.

The No Project Alternative would require the construction of two 12 kV distribution lines (each approximately nine miles in length) at Maraschino Substation. As the location of these ROWs is unknown, it is possible that corona noise associated with these new 12 kV lines could impact sensitive receptors. While the corona noise associated with a 12 kV line would be minimal, it would be a permanent noise source over existing conditions. Furthermore, because the line between Maraschino and Banning Substations is used as the emergency line to Maraschino Substation, current only flows through the line when it is needed to serve loads. In the event the Proposed Project or an alternative to the Proposed Project would not occur, the existing single-circuit 115 kV subtransmission line along this segment would have to carry load at all times. Therefore, the No Project Alternative would introduce a

permanently load carrying line and regular corona discharge noise to residential receptors along this segment not currently exposed to regular corona noise. The addition of approved or pending projects that could occur within 600 feet of these required new 12 kV ROWs could combine with this impact to further increase ambient noise levels to immediately located receptors. Therefore, the combined effect of operational corona noise combined with other proposed development projects located within close proximity to the proposed subtransmission line would be cumulatively significant (Class I).

ES.3.9 Public Services and Utilities

ES.3.9.1 Proposed Project

The Proposed Project would install fiber optic cables within public streets and on existing SCE structures between the Cities of Redlands and Banning. Natural gas and water pipelines are likely located within public streets and service could potentially be temporarily disrupted during planned construction of the underground fiber optic cable installation if required. Mitigation presented in the Public Services and Utilities analysis would inform those affected by any planned utility service outages during construction and would reduce this impact to a less-than-significant level (Class II).

The risk associated with fire as a result of the Proposed Project construction and operation is found to be less than significant (Class II) with the implementation of mitigation presented in the Hazards and Hazardous Materials analysis requiring the preparation and implementation of a fire management plan, County Fire Department review of construction methods, requirements of safe welding procedures, and fire preventive construction equipment requirements. The inclusion of mitigation within the Transportation and Traffic analysis would ensure emergency response access would be available at all times through construction work zones. Furthermore, the Proposed Project would not result in an increase to the local population and would not increase any demands on schools or lower the long-term level of service for fire protection or police protection. All utility demands would be temporary and short-term during construction. Therefore, the service capacities of local public services and utilities serving the area would not be affected.

Cumulative Impacts. During construction, should construction activities from identified cumulative projects occur at the same time as Proposed Project construction, cumulative impacts could occur to public services as a result of combined demand during construction. However, as Proposed Project construction would be short-term and temporary in nature, the only cumulative demand that could be significant would be areas limiting emergency service access. However, the inclusion of mitigation presented within the transportation and traffic analysis ensuring emergency access would be provided through construction zones would reduce the Proposed Project's cumulative contribution to this impact to a less-than-significant level (Class II).

ES.3.9.2 Alternatives

CPUC's Northerly Route Alternative Option 3

Impacts to public services and utilities during construction of Route Alternative Option 3 would be identical to those presented above for the Proposed Project. The risk associated with fire during construction and operation of Route Alternative Option 3 would be identical to that of the Proposed Project. The only potential impact during construction could result during subtransmission line stringing activities limiting emergency access. This impact is found to be less than significant (Class II) with the implementation of mitigation presented in the Hazards and Hazardous Materials and the Transportation and Traffic analyses.

Cumulative Impacts. Cumulative impacts associated with Route Alternative Option 3 would be identical to those presented above for the Proposed Project. Because construction would be short-term and temporary in nature, the only cumulative public service or utility impact that could be significant would be areas limiting emergency service access. However, the inclusion of mitigation presented within the transportation and traffic analysis ensuring emergency access would be provided through construction zones would reduce the Route Alternative Option 3 cumulative contribution to this impact to a less-than-significant level (Class II).

Partial Underground Alternative

Within the underground segment of the proposed Partial Underground Alternative, there is a high-pressure natural gas line co-located with SCE's existing 115 kV subtransmission line through the Sun Lakes community. Both the existing 115 kV line and the natural gas line are within a 100-foot utility corridor that runs east to west through the Sun Lakes community. SCE retains an easement along the northern 50 feet of the corridor, while the Southern California Gas Company retains the easement along the southern 50 feet of the corridor. These distances provide adequate separation between the existing high-pressure gas line and any proposed underground electric facilities (i.e., new ducts and vaults). While SCE is required by State law to contact Underground Service Alert and manually probe for existing buried utilities in the ROW prior to any powered-equipment drilling or excavation, this alternative would result in extensive underground trenching near this existing high-pressure gas line. Mitigation presented in the Public Services and Utilities analysis would require SCE to coordinate with Southern California Gas prior to construction and would reduce this impact to a less-than-significant level (Class II). The remaining impacts to public services and utilities during construction of the Partial Underground Alternative would be identical to those presented above for the Proposed Project.

Cumulative Impacts. Cumulative impacts associated with Route Alternative Option 3 would be identical to those presented above for the Proposed Project.

No Project Alternative

The No Project Alternative would require the construction of two 12 kV distribution lines (each approximately nine miles in length) at Maraschino Substation. As the location of these ROWs is unknown, it is possible that these new 12 kV lines could result in collocation impacts with existing utilities and result in short-term temporary road or lane closures during construction, disrupting emergency vehicle access. Therefore, the No Project Alternative would require mitigation similar to mitigation proposed in the Public Services and Utilities analysis requiring notification of any utility service interruption and those proposed within the Transportation and Traffic analysis ensuring emergency response access would be available at all times through construction work zones. Mitigation of this nature would be recommended to reduce potentially significant impacts associated with the No Project Alternative to less-than-significant levels (Class II).

Cumulative Impacts. As the construction of required new No Project Alternative improvements would be temporary and short-term, similar to the analysis presented above for the Proposed Project, any increase in utility use or public service demand would be temporary resulting in a less-than-significant (Class III) cumulative contribution to demands being placed on utility providers serving the area.

ES.3.10 Transportation and Traffic

ES.3.10.1 Proposed Project

Overhead stringing activities associated with the proposed 115 kV subtransmission line and fiber optic cable would cross a number of local roadways and a few arterial roadways. Portions of the proposed fiber optic system (approximately eight miles) would be installed underground within public roadways. In addition, delivery of large and heavy pieces of material (e.g., lattice steel tower and tubular steel pole parts) via truck may require temporary street closures and would likely require issuance of a permit from the agency regulating the affected roadway. Mitigation presented in the Transportation and Traffic analysis would require the preparation of transportation management plans, restrict the amount of lane and roadway closures, inform those affected by any planned lane or roadway closures, and require coordination with those affected during construction thus reducing these impacts to a less-than-significant level (Class II).

During construction, there is the potential for unexpected physical damage to roads, sidewalks, medians, etc., within public roads or sidewalks to occur as a result of construction-related vehicle and equipment use. Mitigation presented in the Transportation and Traffic analysis would require that any damage to existing transportation facilities be repaired during construction, thus reducing this impact to a less-than-significant level (Class II).

Due to the topography, helicopters may be required at SCE's existing Mill Creek Communications Site within the San Bernardino National Forest (SBNF) for erection of the proposed microwave tower. To ensure that helicopter use during Proposed Project construction would not disrupt the use of airspace, mitigation presented in the Transportation and Traffic analysis would require the preparation of a helicopter lift plan prior to any helicopter construction, thus reducing this impact to a less-than-significant level (Class II).

Cumulative Impacts. In the event that construction of the Proposed Project and any identified cumulative projects along the subtransmission line ROW were to occur simultaneously, cumulative impacts resulting in temporary lane closures and disruption of traffic flows could occur. Therefore, temporary impacts resulting from lane closures associated with construction of the Proposed Project could combine with other construction projects along the subtransmission and fiber optic ROW's to create a temporary significant cumulative impact. However, with implementation of project-specific mitigation recommended to ensure that potentially significant impacts associated with short-term lane closures during construction are reduced, the Proposed Project's cumulative contribution to this impact would be less than significant (Class II).

ES.3.10.2 Alternatives

CPUC's Northerly Route Alternative Option 3

Stringing activities associated with the Route Alternative Option 3 115 kV subtransmission line would cross a number of local roadways and larger arterial roadways (as well as the I-10 Freeway within the Cities of Banning and Beaumont), potentially interfering with emergency response access. These activities would also disrupt business and residential home access, result in a loss of street parking, disrupt public transportation service, and disrupt pedestrian and bicycle routes. In addition, the El Casco to Banning Subtransmission Line - Segment 2 would be implemented within an existing SCE ROW and a City of Banning utility ROW directly adjacent to residential roadways. The replacement of existing single-circuit wood poles with single-circuit steel poles could result in temporary road or lane

closures during installation due to the small size of the SCE and City of Banning utility ROWs and the proximity to local roadways. Furthermore, Route Alternative Option 3 construction activities would cross the Union Pacific Railroad line at two locations. Mitigation presented in the Transportation and Traffic analysis would require the preparation of transportation management plans, restrict the amount of lane and roadway closures, inform those affected by any planned lane or roadway closures, and require coordination with those affected during construction thus reducing these impacts to a less-than-significant level (Class II).

The potential for unexpected physical damage to roads, sidewalks, medians, etc., for Route Alternative Option 3 would be identical to those presented above for the Proposed Project. With recommended mitigation measures, this impact would be reduced to a less-than-significant level (Class II). Furthermore, to ensure that possible helicopter use during Route Alternative Option 3 construction would not disrupt the use of airspace, mitigation presented in the Transportation and Traffic analysis would require the preparation of a helicopter lift plan prior to any helicopter construction thus reducing this impact to a less-than-significant level (Class II).

Cumulative Impacts. While the Route Alternative Option 3 proposed subtransmission line ROW would differ from that of the Proposed Project route, the potential for construction activities to combine with nearby cumulative development to result in an increase in temporary lane closures would be similar. Mitigation measures ensuring that potentially significant impacts associated with short-term lane closures during construction are reduced would reduce the Route Alternative Option 3 cumulative contribution to this impact to a less-than-significant level (Class II).

Partial Underground Alternative

During construction, road closures and detours would be required, because trenching for underground construction would cross Pine Valley Road, Birdie Drive, Fairway Oaks Avenue, and S. Riviera Avenue. During non-work hours, any open trench would be covered by either heavy-duty plywood (in non-traffic areas) or steel plates (in roadways). The remaining 115 kV and fiber optic stringing activities would be identical to the Proposed Project and would require short-term temporary closure of traffic lanes and roadways. Mitigation presented in the Transportation and Traffic analysis would require the preparation of transportation management plans, restrict the amount of lane and roadway closures, inform those affected by any planned lane or roadway closures, and require coordination with those affected during construction, thus reducing these impacts to a less-than-significant level (Class II).

The potential for unexpected physical damage to roads, sidewalks, medians, etc., resulting from the Partial Underground Alternative would be identical as that presented above for the Proposed Project. Recommended mitigation measures would reduce this impact to a less-than-significant level (Class II). Furthermore, to ensure that possible helicopter use (at the Mill Creek Communications Site) during Partial Underground Alternative construction would not disrupt the use of airspace, mitigation presented in the Transportation and Traffic analysis would require the preparation of a helicopter lift plan prior to any helicopter construction, thus reducing this impact to a less-than-significant level (Class II).

Cumulative Impacts. The potential for Partial Underground Alternative construction activities to combine with nearby cumulative development and result in an increase in temporary lane closures would be similar to that presented above for the Proposed Project. Mitigation recommended for the Partial Underground Alternative to ensure that potentially significant impacts associated with short-term

lane closures during construction are reduced would reduce the cumulative contribution to this impact to a less-than-significant level (Class II).

No Project Alternative

The No Project Alternative would require the construction of two 12 kV distribution lines (each approximately nine miles in length) at Maraschino Substation. The location of these ROWs is unknown at this time, and it is possible that these new 12 kV lines could cross existing roadways and result in short-term temporary road or lane closures during construction. Therefore, the No Project Alternative would result in construction-related temporary traffic impacts and potential roadway/lane closures requiring mitigation similar or identical to that described in the Transportation and Traffic analysis to prepare transportation management plans, restrict the amount of lane and roadway closures, inform those affected by any planned lane or roadway closures, and require coordination with those affected during construction. Mitigation of this nature would be recommended to reduce potentially significant impacts associated with the No Project Alternative to less-than-significant levels (Class II).

Cumulative Impacts. The location of the potential 12 kV distribution line ROWs is unknown under the No Project Alternative scenario. It is possible that these new 12 kV lines could cross existing roadways and result in short-term temporary road or lane closures during construction. The facility upgrade activities that could occur under the No Project Alternative could combine with construction impacts from cumulative construction projects in the area to result in cumulative traffic and disruption impacts from temporary lane closures. Therefore, the No Project Alternative would require mitigation similar or identical to that included in the Transportation and Traffic analysis for the Proposed Project to reduce the No Project Alternative cumulative contribution to this impact to a less-than-significant level (Class II).

ES.3.11 Visual Resources

ES.3.11.1 Proposed Project

Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the construction and staging areas. Mitigation measures included in the Visual Resources analysis would reduce visibility of construction activities and equipment and reduce construction night lighting impacts to reduce the impacts to levels that would be less than significant (Class II).

Land scarring would occur from use of staging areas, construction of new access and spur roads, and activities adjacent to construction sites (El Casco Substation) and along the ROW. Long-term land scarring and vegetation clearance impacts would be mitigated by reducing in-line views of land scars and reducing visual contrast from unnatural vegetation lines as presented in the visual resources analysis. The implementation of these measures would reduce these impacts to a less-than-significant level (Class II).

Once operational, the development of Proposed Project structures would result in a visual increase to structure contrast, industrial character of the area, result in existing view blockage, skylining, and glare impacts when viewed from certain key viewpoint along the Proposed Project subtransmission line route and substation sites. The locations of these key viewpoints is presented in the visual resources analysis. To reduce these operational visual impacts, mitigation is presented to reduce visibility of the El Casco Substation site, reduce visibility of the Zanja Substation modifications, and reduce operation night

lighting impacts. The implementation of these measures would reduce the visual impacts associated with the Proposed Project at key viewpoints to less than significant (Class II).

Cumulative Impacts. There are six identified residential cumulative projects that, when constructed, would be visible within the same field of view as the Proposed Project. All six of these residential development projects would (a) be consistent with other residential uses in the immediate area and region; (b) not appreciably change the character of the existing, rapidly developing suburban/urban landscape; and (c) not share the same or similar industrial character as the Proposed Project. On that basis, the Proposed Project would not result in cumulative visual impacts with the six residential projects. However, in all six cases, substantial view blockage of background hills and sky would occur when seen from viewpoints north of the developments. On its own, view blockage impacts caused by the Proposed Project would be adverse but less than significant. However, in conjunction with the substantial view blockage that would occur in combination with the residential projects, the resulting cumulative visual impact would be significant (Class I).

Although the Proposed Project is replacing existing wood-pole structures along the subtransmission line ROW, the new steel-pole structures would have a stronger industrial character. On its own, the increase in industrial character and view blockage caused by the proposed subtransmission line would result in adverse but less than significant impacts. However, the Proposed Project in conjunction with the highly industrial character of the identified nearby DPV2 500 kV Transmission Line Project (the Devers-Valley portion) would increase the combined industrial character and view blockage, resulting in a significant (Class I) cumulative visual impact.

ES.3.11.2 Alternatives

CPUC's Northerly Route Alternative Option 3

Construction of Route Alternative Option 3 would result in similar visual intrusion from construction equipment and similar visual impacts would also result from the temporary alteration of landforms and vegetation clearance as described above for the Proposed Project. The implementation of identical mitigation presented for the Proposed Project as described above would reduce temporary visual impacts from construction to a less-than-significant level (Class II).

Long-term, operational visual impacts associated with Route Alternative Option 3 would be similar to those described for the Proposed Project, but would include a different set of key viewpoints from which visual impacts were analyzed. The location of these key viewpoints is described within the Visual Resources analysis. In addition to the 10 key viewpoints previously presented for the Proposed Project (for common project areas), three representative key viewpoints were selected to characterize the visual impacts that would occur from implementation of the northern subtransmission component of the Route Alternative Option 3. The increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 11 on westbound Summit Drive (located just south of the SCE Devers-Vista ROW represents a significant visual impact (Class I). Operational visual impacts at the remaining two Route Alternative Option 3 specific viewpoints would not be significant with the implementation of mitigation measures identified in the Visual Resources analysis. Impacts at these two viewpoints would be less than significant (Class II).

Cumulative Impacts. Sixteen identified residential cumulative projects were identified that, when constructed, would be visible within the same field of view as Route Alternative Option 3. Identical to the analysis presented above for the Proposed Project, on its own, the majority of view blockage impacts (except at Key Viewpoint 11) caused by Route Alternative Option 3 would be adverse but less

than significant. However, in conjunction with the substantial view blockage that would occur in combination with the residential projects, the resulting cumulative visual impact would be significant (Class I). Furthermore, due to Route Alternative Option 3 proximity to the identified nearby DPV2 500 kV transmission line project, the combined increase in industrial character and view blockage would result in a significant (Class I) cumulative visual impact from new tower construction associated with Route Alternative Option 3.

Partial Underground Alternative

While construction of the Partial Underground Alternative would result in an increase in construction duration and intensity within the underground segment of subtransmission line, the overall visual impacts during construction would result in similar visual intrusion impacts and temporary alteration of landforms and vegetation clearance as described above for the Proposed Project. The implementation of identical mitigation presented for the Proposed Project as described above would reduce temporary visual impacts from construction associated with the Partial Underground Alternative to a less than significant level (Class II).

Long-term, operational visual impacts associated with the Partial Underground Alternative would be similar to those described for the Proposed Project; however, there would be an elimination of visual impacts along one key viewpoint from South Highland Home Road to adjacent residences and the Sun Lakes development in general. As this segment of subtransmission line would be placed underground, no visual impacts would occur along this segment. However, operational visual impacts for the remaining portions of the Partial Underground Alternative would be identical to those of the Proposed Project. The implementation of mitigation measures identified for the Proposed Project would be applicable to the Partial Underground Alternative to reduce operational visual impacts to a less than significant level (Class II).

Cumulative Impacts. The cumulative construction impacts associated with the Partial Underground Alternative would be identical to those of the Proposed Project. Similar mitigation would be required during construction to reduce the visual impacts associated with construction activities to a less than significant level (Class II).

The one slight variation is the operational cumulative interaction between the transition structures of the underground segment and the 500 kV lattice structures associated with the Devers-Valley segment of the DPV2 500 kV Transmission Line Project (No. A2). As for the Proposed Project (and CPUC's Northerly Route Alternative Option 3), the increase in industrial character and view blockage caused by the proposed subtransmission line (and in this case, the transition structures) would result in adverse but less than significant impacts. However, in conjunction with the highly industrial character of the DPV2 500 kV Project (No. A2) structures that would be placed in the near the Devers-Valley No. 1 500 kV Transmission Line corridor to the immediate south of the Sun Lakes development, the combined increase in industrial character and view blockage would result in a significant (Class I) cumulative visual impact.

No Project Alternative

The construction impacts associated with the No Project Alternative would be similar to those of the Proposed Project. The reader is therefore, referred to the discussion of the Proposed Project cumulative impacts above. Similar mitigation would be required during construction to reduce the visual impacts associated with construction activities to a less than significant level (Class II). The addition of two wood pole, 12 kV distribution lines within established suburban/urban landscapes, while visible to

travelers on local roads or residents in the immediate vicinity of the routes, would not appear out of character, particularly in landscapes with other utility infrastructure in the vicinity. Without knowing the actual location of the routes, it is reasonable to assume that the overall visual sensitivity along the ROWs would not exceed moderate-to-high in the project vicinity. It is also reasonable to assume that the increased structure contrast, industrial character, skylining, and view blockage that would result from the distribution lines would cause a low to low-to-moderate visual contrast and that the subordinate to co-dominant structures and conductors would cause no greater than a moderate degree of view blockage of background sky and hills. The resulting visual change along these two routes would not exceed a moderate level, and in the context of a moderate-to-high overall visual sensitivity (at the most), the resulting visual impacts would be adverse but less than significant (Class III).

Cumulative Impacts. The cumulative impacts associated with the No Project Alternative would be similar to those of the Proposed Project though at a substantially reduced scale given the substantially reduced scale of the facility upgrades under this alternative. The modifications of the substations would be sufficiently limited such that cumulative visual impacts associated with the substations are not anticipated. However, specific cumulative projects associated with the distribution lines cannot be identified at this time because the distribution routes are not known. Yet, the resulting cumulative visual impacts would certainly be less than would occur with either the Proposed Project or the other alternatives (Class III).

ES.3.12 Effects Found Not to Be Significant

The primary intent of the above Executive Summary is to summarize the potentially significant impacts associated with the Proposed Project and alternatives to the Proposed Project. Significant impacts requiring mitigation measures (Class II), and significant unavoidable impacts (Class I) of the Proposed Project and alternatives are included within the full analysis of all environmental issue areas presented in Section D (Environmental Analysis). A number of impacts were found to be less than significant (Class III) requiring no mitigation. The reader is therefore referred to each individual issue area analysis presented in Section D for a full analysis of each issue area including impacts of the Proposed Project and Alternatives found to be less than significant. All Class III impacts associated with the Proposed Project and Alternatives are identified below in Impact Summary Tables at the end of this Executive Summary.

In addition to all identified issue areas and impacts fully analyzed in Section D (Environmental Analysis), in conducting the preliminary environmental review of the Proposed Project, it was determined that the Proposed Project would have no impacts to both mineral resources and population and housing. A brief discussion of these resources and issues, and the reasons why no significant impacts were identified related to these resources or issues is provided in Section D.13 (Effects Found not to be Significant) of the EIR.

ES.3.13 Summary of Other Considerations

In addition to all identified issue areas and impacts fully analyzed in Section D (Environmental Analysis), Section F (Other Considerations) of this EIR includes a discussion and analysis of other environmental considerations of the Proposed Project and Alternatives. These issues include growth-inducing and cumulative impacts (as required by CEQA), and other important concerns associated with the environmental assessment of the Proposed Project including: greenhouse gases, impacts to property values, terrorism impacts, and a summary of EMF impacts (Section D.7.7 of this EIR provides detailed information regarding EMF associated with electric utility facilities and the potential effects of the

Proposed Project and alternatives related to public health and safety). The reader is, therefore, referred to Section F (Other Considerations) for a full analysis of these issues.

ES.4 SUMMARY COMPARISON OF THE PROPOSED PROJECT AND ALTERNATIVES

ES.4.1 Methodology

CEQA requires identification of an environmentally superior alternative if the No Project Alternative is found to have the least impacts, 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 and permanent loss of habitat or loss of use of recreational facilities). 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 during scoping, an intensive evaluation process was completed that resulted in the determination that the EIR would analyze two subtransmission line alternatives, including the CPUC's Northerly Route Alternative Option 3 and the Partial Underground Alternative. A No Project Alternative was also identified and the scenario was defined. While six other alternatives were evaluated, they did not meet CEQA criteria for analysis (as defined in Section 2 above). The second step required assessment of the environmental impacts of the Proposed Project and the 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., air quality, visual resources, biological resources, land use, and recreation), determining an environmentally superior alternative is difficult because of the many factors that must be balanced. While the EIR identifies an environmentally superior alternative, it is possible that the ultimate decision-makers could balance the importance of each impact area differently and reach a different conclusion. Section E (Comparison of Alternatives) of this EIR provides the detailed comparison of alternatives.

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

Table ES-2 lists the significant unavoidable (Class I) impacts of the Proposed Project and all project alternatives analyzed within Section D, Environmental Analysis, and cumulative impacts analyzed in Section F, Other Considerations.

Table ES-2. Significant Unavoidable (Class I) Impacts of the Proposed Project and Alternatives

| | Significant Impacts (Class I) |
|------------------|---|
| Proposed Project | AQ-1 (Construction emissions exceed regional significance criteria); AQ-2 (Construction emissions exceed localized significance criteria); AQ-3 (Emissions contribute to climate change); N-3 (Noise from operation of the overhead subtransmission line); Cumulatively exceed regional emission thresholds; Cumulatively exceed localized emission thresholds; Cumulatively increase greenhouse gas emissions impacting climate change; |

Table ES-2. Significant Unavoidable (Class I) Impacts of the Proposed Project and Alternatives

| | Significant Impacts (Class I) |
|---|---|
| | <p>Cumulatively cause temporary or permanent loss of native vegetation communities; Cumulatively cause loss of foraging or breeding habitat for wildlife; Cumulatively introduce non-native and invasive plant species; Cumulatively result in a loss of nesting birds; Cumulatively result in indirect or direct loss of listed plants; Cumulatively result in indirect or direct loss of Quino Checkerspot habitat; Cumulatively result in habitat loss or disturbance to listed birds including migratory birds and raptors; Cumulatively result in the electrocution of listed and special-status bird species; Cumulatively result in subtransmission line collisions by listed and special-status bird species; Cumulatively result in the loss of special-status plant species; Cumulatively result in indirect or direct loss of individuals or a direct loss of habitat for sensitive wildlife; Cumulatively result in the loss of special-status reptile species; Cumulatively result in the loss of burrowing owls; Cumulatively result in the loss of foraging habitat or disruption of nesting for special-status raptor species; Cumulatively result in the loss of the American badger; Cumulatively result in loss of special-status rodent species; Cumulatively result in the loss of jurisdictional waters and wetlands; and Cumulatively result in the loss or restriction of habitat connectivity in Constrained Linkage 22; Cumulatively expose people or structures to a significant risk of loss, injury or death involving wildland fires; Construction activities would cumulatively degrade surface water and groundwater quality; Operational activities would cumulatively degrade surface water and groundwater quality; Cumulatively result in a substantial permanent increase in ambient noise levels; Cumulative impacts to a perceived increase in industrialization of the landscape.</p> |
| <p>Northerly Route Alternative Option 3</p> | <p>AQ-1 (Construction emissions exceed regional significance criteria); AQ-2 (Construction emissions exceed localized significance criteria); AQ-3 (Emissions contribute to climate change); N-3 (Noise from operation of the overhead subtransmission line); CR-4 (Pole Replacement Has the Potential to Indirectly Impact Historical Resources); V-13 (Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 11 on westbound Summit Drive).</p> <p>Cumulatively exceed regional emission thresholds; Cumulatively exceed localized emission thresholds; Cumulatively increase greenhouse gas emissions impacting climate change; Cumulatively cause temporary or permanent loss of native vegetation communities; Cumulatively cause loss of foraging or breeding habitat for wildlife; Cumulatively introduce non-native and invasive plant species; Cumulatively result in a loss of nesting birds; Cumulatively result in indirect or direct loss of listed plants; Cumulatively result in indirect or direct loss of Quino Checkerspot habitat; Cumulatively result in habitat loss or disturbance to listed birds including migratory birds and raptors; Cumulatively result in the electrocution of listed and special-status bird species; Cumulatively result in subtransmission line collisions by listed and special-status bird species; Cumulatively result in the loss of special-status plant species; Cumulatively result in indirect or direct loss of individuals or a direct loss of habitat for sensitive wildlife; Cumulatively result in the loss of special-status reptile species; Cumulatively result in the loss of burrowing owls; Cumulatively result in the loss of foraging habitat or disruption of nesting for special-status raptor species; Cumulatively result in the loss of the American badger; Cumulatively result in loss of special-status rodent species; Cumulatively result in the loss of jurisdictional waters and wetlands; and Cumulatively result in the loss or restriction of habitat connectivity in Constrained Linkage 22; Cumulatively expose people or structures to a significant risk of loss, injury or death involving wildland fires; Construction activities would cumulatively degrade surface water and groundwater quality; Operational activities would cumulatively degrade surface water and groundwater quality; Cumulatively result in a substantial permanent increase in ambient noise levels; Cumulative impacts to a perceived increase in industrialization of the landscape.</p> |
| <p>Partial Underground Alternative</p> | <p>AQ-1 (Construction emissions exceed regional significance criteria); AQ-2 (Construction emissions exceed localized significance criteria); AQ-3 (Emissions contribute to climate change); LU-2 (Construction would temporarily disturb the land uses it traverses or adjacent land uses); LU-8 (Construction or operation would disrupt recreational activities such that recreational values would be reduced); N-3 (Noise from operation of the overhead subtransmission line).</p> <p>Cumulatively exceed regional emission thresholds; Cumulatively exceed localized emission thresholds; Cumulatively increase greenhouse gas emissions impacting climate change; Cumulative impacts to a perceived increase in industrialization of the landscape; Cumulatively cause temporary or permanent loss of native vegetation communities; Cumulatively cause loss of</p> |

Table ES-2. Significant Unavoidable (Class I) Impacts of the Proposed Project and Alternatives

| | Significant Impacts (Class I) |
|------------------------|---|
| | foraging or breeding habitat for wildlife; Cumulatively introduce non-native and invasive plant species; Cumulatively result in a loss of nesting birds; Cumulatively result in indirect or direct loss of listed plants; Cumulatively result in indirect or direct loss of Quino Checkerspot habitat; Cumulatively result in habitat loss or disturbance to listed birds including migratory birds and raptors; Cumulatively result in the electrocution of listed and special-status bird species; Cumulatively result in subtransmission line collisions by listed and special-status bird species; Cumulatively result in the loss of special-status plant species; Cumulatively result in indirect or direct loss of individuals or a direct loss of habitat for sensitive wildlife; Cumulatively result in the loss of special-status reptile species; Cumulatively result in the loss of burrowing owls; Cumulatively result in the loss of foraging habitat or disruption of nesting for special-status raptor species; Cumulatively result in the loss of the American badger; Cumulatively result in loss of special-status rodent species; Cumulatively result in the loss of jurisdictional waters and wetlands; and Cumulatively result in the loss or restriction of habitat connectivity in Constrained Linkage 22; Cumulatively expose people or structures to a significant risk of loss, injury or death involving wildland fires; Construction activities would cumulatively degrade surface water and groundwater quality; Operational activities would cumulatively degrade surface water and groundwater quality; Cumulatively result in a substantial permanent increase in ambient noise levels. |
| No Project Alternative | AQ-3 (Emissions contribute to climate change); N-3 (Noise from operation of the overhead subtransmission line). Cumulatively increase greenhouse gas emissions impacting climate change; Cumulatively cause temporary or permanent loss of native vegetation communities; Cumulatively cause loss of foraging or breeding habitat for wildlife; Cumulatively introduce non-native and invasive plant species; Cumulatively result in a loss of nesting birds; Cumulatively result in indirect or direct loss of listed plants; Cumulatively result in indirect or direct loss of Quino Checkerspot habitat; Cumulatively result in habitat loss or disturbance to listed birds including migratory birds and raptors; Cumulatively result in the electrocution of listed and special-status bird species; Cumulatively result in subtransmission line collisions by listed and special-status bird species; Cumulatively result in the loss of special-status plant species; Cumulatively result in indirect or direct loss of individuals or a direct loss of habitat for sensitive wildlife; Cumulatively result in the loss of special-status reptile species; Cumulatively result in the loss of burrowing owls; Cumulatively result in the loss of foraging habitat or disruption of nesting for special-status raptor species; Cumulatively result in the loss of the American badger; Cumulatively result in loss of special-status rodent species; Cumulatively result in the loss of jurisdictional waters and wetlands; and Cumulatively result in the loss or restriction of habitat connectivity in Constrained Linkage 22; Cumulatively result in a substantial permanent increase in ambient noise levels. |

ES.4.3 Environmentally Superior Alternative

Table ES-3 shows that the significant and unmitigable long-term impacts of the Proposed Project are identical and shared amongst all three options, with the CPUC's Northerly Route Alternative Option 3 resulting in two additional significant long-term historic, visual, and cumulative impacts. As shown in Table ES-3, out of the 11 environmental resource areas analyzed in detail, the Partial Underground Alternative is the preferred alternative in three issue areas. With respect to the remaining eight issue areas, there are no significant preferences. Out of the three options for project implementation, the Partial Underground Alternative would have the least long-term impacts, and the majority of short-term impacts can be mitigated to less-than-significant levels.

Table ES-3. Proposed Project vs. CPUC's Northerly Route Alternative Option 3 and Partial Underground Alternative

| Issue Area | Proposed Project | Route Alternative Option 3 | Partial Underground Alternative |
|--|---|---|---|
| Air Quality | No Preference. Construction would result in the lowest construction emissions. Operation and maintenance would result in less than significant long-term emissions. | No Preference. Construction would result in higher NOx and PM10 construction emissions when compared to the Proposed Project. Operation and maintenance would result in similar less than significant long-term emissions in comparison to the Proposed Project. | No Preference. Construction would result in the highest NOx and PM10 emissions and highest localized impacts to sensitive receptors due to the large amount of grading and extended construction period in the Sun Lakes community. Operation and maintenance would result in similar less than significant long-term emissions in comparison to the Proposed Project. |
| Land Use | Would traverse adjacent to (approximately 237 residential structures) in existing 115 kV subtransmission line ROW resulting in less than significant long term land use impacts. | Would traverse a large amount of residential development (approximately 303 residential structures) within the City of Banning. Operation and maintenance would have significant long-term impacts on a greater number of residences when compared to the Proposed Project. | Preferred. Similar to the Proposed Project, would traverse adjacent to (approximately 237 residential structures) in existing 115 kV subtransmission line ROW. For duration of 10-month construction activities, land uses would be precluded. However, when compared to the Proposed Project, long-term use of the golf course in Sun Lakes would be improved. |
| Biological Resources | No Preference. Construction would result in the least amount of ground disturbance. Operation and maintenance would result in similar less than significant long-term biological resource impacts. | No Preference. Reroute of 115 kV subtransmission line would increase total ground disturbance and cross a broad riparian area north of San Timoteo Creek during construction. Operation and maintenance would result in similar less than significant long-term biological resource impacts. | No Preference. Extended duration of construction at underground segment would increase wildlife disruption. Operation and maintenance would result in similar less than significant long-term biological resource impacts. |
| Cultural Resources | Preferred. Construction would have the least potential to impact undiscovered cultural resources. Operation and maintenance would result in no long-term cultural resource impacts. | Similar construction impacts to cultural resources as the Proposed Project. Operation would result in significant long-term impacts to a potential historic district along Summit Drive in the City of Banning | Increased amount of required grading during construction would result in the highest possibility of encountering undiscovered buried resources. Similar to the Proposed Project, operation and maintenance would result in no long-term cultural resource impacts. |
| Geology and Soils | No Preference. Construction would result in the least amount of ground disturbance during construction. Operation and maintenance would result in less than significant long-term geology and soils impacts. | No Preference. Would increase the total number of subtransmission line poles required and amount of ground disturbed during construction. Operation and maintenance would result in similar less than significant long-term geology and soils impacts when compared to the Proposed Project. | No Preference. Extensive trenching required would increase amount of soil disturbed and risk of erosion during construction. Operation and maintenance would result in similar less than significant long-term geology and soils impacts when compared to the Proposed Project. |
| Hazards and Hazardous Materials ² | No Preference. Has fewest identified contaminated sites near construction zones. Operation and maintenance would result in less than significant long-term hazards and hazardous materials impacts. | No Preference. Has the most identified contaminated sites near construction zones. Operation and maintenance would result in similar less than significant long-term hazards and hazardous materials impacts when compared to the Proposed Project. | No Preference. Required trenching would increase construction activities and risk of hazardous materials used during construction. Operation and maintenance would result in similar less than significant long-term hazards and hazardous materials impacts when compared to the Proposed Project. |

² EMF impacts are not considered in this analysis as EMF is not considered a CEQA issue.

Table ES-3. Proposed Project vs. CPUC’s Northerly Route Alternative Option 3 and Partial Underground Alternative

| Issue Area | Proposed Project | Route Alternative Option 3 | Partial Underground Alternative |
|-------------------------------|---|---|---|
| Hydrology and Water Quality | No Preference. Construction would result in the least amount of ground disturbance and potential surface water quality impacts. Operation and maintenance would result in less than significant long-term hydrology and water quality impacts. | No Preference. Would increase the total amount of ground disturbed thus increasing the risk to surface water quality during construction. Operation and maintenance would result in similar less than significant long-term hydrology and water quality impacts when compared to the Proposed Project. | No Preference. Extensive trenching required would increase the possibility of impacts to groundwater during construction. Operation and maintenance would result in similar less than significant long-term hydrology and water quality impacts when compared to the Proposed Project. |
| Noise | Construction would result in the least amount of residences impacted. Operation would result in significant long-term corona noise impacts. | Construction would result in the most amount of residences impacted. Operation would result in more residential receptors exposed to significant long-term corona noise impacts when compared to the Proposed Project. | Preferred. Construction would result in the identical number of residences impacted as the Proposed Project. However, extensive construction noise for 10 months would occur at underground segment. Once operational, the underground subtransmission line would reduce corona noise impacts on residential receptors in the Sun Lakes Community when compared to the Proposed Project. |
| Public Services and Utilities | No Preference. Construction would result in the least amount of generated solid waste and shortest construction schedule. Operation and maintenance would result in less than significant long-term public services and utilities impacts. | No Preference. Construction would require the removal of more poles during construction, thus increasing solid waste. Operation and maintenance would result in similar less than significant long-term public services and utilities impacts when compared to the Proposed Project. | No Preference. Construction would result in an increase in soil spoils due to underground construction. Trenching would require an increase in water use for dust suppression. However, operation and maintenance would result in similar less than significant long-term public services and utilities impacts when compared to the Proposed Project. |
| Transportation and Traffic | No Preference. Construction would travel through the least amount of residential development. Operation and maintenance would result in less than significant long-term transportation and traffic impacts. | No Preference. Construction activities within City of Banning residential neighborhoods would likely result in more traffic delays. Operation and maintenance would result in similar less than significant long-term transportation and traffic impacts when compared to the Proposed Project. | No Preference. Extended construction duration within the Sun Lakes community would increase roadway delays. However, operation and maintenance would result in similar less than significant long-term transportation and traffic impacts when compared to the Proposed Project. |
| Visual Resources | Construction would result in the least amount of residences impacted. Operation would require mitigation to decrease long-term visual impacts. | Construction would result in the most amount of residences impacted. Operation would result in a significant unavoidable visual impact to views from Summit Drive. | Preferred. Construction would result in the identical number of residences impacted as the Proposed Project. However, the underground segment of subtransmission line would eliminate existing above-ground visible 115 kV subtransmission line wood poles in the Sun Lakes Community. |

Note: 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 than the long-term effects when comparing project alternatives.

The Partial Underground Alternative is preferred over the Proposed Project in three issue areas (land use, noise, and visual) along the approximate one-mile portion of the route through the Sun Lakes community. Any benefits along the one-mile underground portion would only be experienced in the long-term once the project is implemented.

Although the Partial Underground Alternative was developed predominantly in response to the concerns of the citizens of the Sun Lakes community expressed during the public scoping period for the EIR, the EIR preparers did consider potentially undergrounding a longer portion of the 115 kV subtransmission line between the Maraschino and Banning Substations to reduce impacts on the communities adjacent to SCE's existing 115 kV ROW. The majority of the route for the Proposed Project and the Partial Underground Alternative (which is an identical route) traverses adjacent to open space areas. Undergrounding the route west (e.g., adjacent to the Four Seasons Development) of Highland Springs Avenue was not studied in detail, because undergrounding the 115 kV subtransmission line would not provide any significant benefits to the residential developments in this area. The characteristics of the existing 115 kV subtransmission line ROW adjacent to the Four Seasons Development differ greatly from the Sun Lakes Development in that the ROW does not traverse through the development. Therefore, sensitive land uses such as residences and recreational resources are not impacted by the overhead subtransmission line to the same degree as they would be through the Sun Lakes community. In addition, undergrounding the route immediately to the east of the Sun Lakes community was not studied in detail because this area is mainly undeveloped open space with sensitive biological resources, and no sensitive receptors or residential land uses occur along this portion of the ROW.

Conclusion

The Partial Underground Alternative is feasible and meets most of the project objectives, and would result in permanent beneficial visual impacts by removing the existing H-frame wood poles through the Sun Lakes community, and placing the new 115 kV double-circuit line underground. Furthermore, this alternative would remove the subtransmission line, such that it would no longer obstruct activities associated with the Sun Lakes Country Club golf course resulting in permanent beneficial impacts to an existing recreational facility. The new adverse environmental impacts that would be created by this alternative predominantly would be short-term construction-related impacts associated with underground trenching activities. These impacts are both temporary (once construction ends the impacts go away) and in many respects are mitigable. Therefore, the Environmentally Superior Alternative would be the Partial Underground Alternative.

Impacts of the Environmentally Superior Alternative are defined in each issue area's impact analysis as presented in Section D (Environmental Analysis) within this EIR.

ES.4.4 Environmentally Superior Alternative vs. No Project Alternative

The Environmentally Superior Alternative would be located in an existing SCE 115 kV subtransmission line ROW, and would replace an existing single-circuit 115 kV subtransmission line on wood poles with a double-circuit 115 kV subtransmission line on steel poles and underground for a one-mile portion. Because the main components of the subtransmission line development would occur in existing ROWs, the Environmentally Superior Alternative would have minimal or improved long-term impacts on residences or other sensitive land uses. The Environmentally Superior Alternative would also include development of a new substation, and upgrades to existing substations (within substation boundaries) and associated telecommunications facilities (i.e., fiber optic line in existing underground conduits and on existing SCE subtransmission poles, and upgrades to the Mill Creek Communications Site).

Without upgrades to the existing system, to address the overload conditions in the Maraschino Substation service area, SCE would add a third 28 MVA transformer and two 12 kV distribution lines (each approximately 9 miles in length) at Maraschino Substation. In addition, switchrack rebuilds at Banning and Zanja Substations would need to be completed. These activities would generate short-term temporary construction impacts similar to those of the Partial Underground Alternative (Environmentally Superior

Alternative), including significant unavoidable air quality emissions, short-term noise generation, temporary traffic delays and lane closures, impacts to biological resources, and potential cultural resource impacts. Furthermore, because the location of the required new 12 kV distribution lines is unknown under the No Project Alternative scenario, it is assumed that this required improvement to SCE's existing system would result in similar operational visual impacts, noise impacts, and land use impacts as the Environmentally Superior Alternative. Therefore, APMs and mitigation similar to those recommended within this EIR to reduce impacts associated with the Partial Underground Alternative would need to be implemented by SCE for system upgrades required under the No Project Alternative scenario to reduce environmental impacts.

Electrical infrastructure improvements required for the No Project alternative would likely result in similar environmental impacts as those described in Section D (Environmental Analysis) for the Environmentally Superior Alternative (the proposed El Casco System Project with partial undergrounding of the route for one-mile), but these impacts would likely occur in different locations within the project area. Because of the eventual system upgrades needed in the project area, it is unlikely that the No Project Alternative would provide any clear advantage over the Environmentally Superior Alternative in the long-term.

ES.5. IMPACT SUMMARY TABLES

Table ES-4, ES-5 and ES-6 on the following pages summarize all identified impacts of the Proposed Project (Table ES-4) and alternatives (Tables ES-5 and ES-6). For each impact, the following information is presented: impact number and title, impact class (Class I, II, III, or IV), and applicable mitigation measure.

Table ES-4. Summary of Impacts and Mitigation for the Proposed Project

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|---|
| Air Quality | | |
| Impact AQ-1: Construction emissions exceed regional significance criteria | Class I | AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions APM AQ-1; APM AQ-2; APM AQ-3; APM AQ-4; APM AQ-5; APM AQ-6; APM AQ-7; APM AQ-8; APM AQ-9; APM AQ-10; APM AQ-11; APM AQ-12; APM AQ-13; APM AQ-14; APM AQ-15; APM AQ-16 |
| Impact AQ-2: Construction emissions exceed localized significance criteria | Class I | AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions APM AQ-1; APM AQ-2; APM AQ-3; APM AQ-4; APM AQ-5; APM AQ-6; APM AQ-7; APM AQ-8; APM AQ-9; APM AQ-10; APM AQ-11; APM AQ-12; APM AQ-13; APM AQ-14; APM AQ-15; APM AQ-16 |
| Impact AQ-3: Emissions Contribute to Climate Change | Class I | AQ-3: Avoid Sulfur Hexafluoride Emissions |
| Land Use | | |
| Impact LU-1: Conflict with applicable land use plans, policies, or regulations | Class III | None |
| Impact LU-2: Construction would temporarily disturb the land uses it traverses or adjacent land uses | Class II | LU-2a: Coordinate Construction Schedule with Public and Community Facilities LU-2b: Prepare Construction Notification Plan |
| Impact LU-3: Operation of the Project would result in permanent preclusion of land uses it traverses or adjacent land uses | Class III | None |
| Impact LU-4: Construction or operation would convert Farmland to non-agricultural use | Class III | None |
| Impact LU-5: Construction or operation would interfere with agricultural operations | Class III | None |
| Impact LU-6: Construction or operation would conflict with a Williamson Act contract | Class III | None |
| Impact LU-7: Construction or operation would result in the physical deterioration of a recreational facility due to increased use | No Impact | None |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-4. Summary of Impacts and Mitigation for the Proposed Project

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|---|
| Impact LU-8: Construction or operation would disrupt recreational activities such that recreational values would be reduced | Class II | LU-2a: Coordinate Construction Schedule with Public and Community Facilities LU-2b: Prepare Construction Notification Plan |
| Biological Resources | | |
| Impact B-1: The Project would cause temporary or permanent loss of native vegetation communities | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-1; APM BIO-4 |
| Impact B-2: The Project would cause loss of foraging or breeding habitat for wildlife | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-1; APM BIO-4 |
| Impact B-3: The Project would introduce non-native and invasive plant species | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-3a: Implement Weed Control Measures B-3b: Landscape with Native or Non-invasive Plant Species |
| Impact B-4: The Project would result in a loss of nesting birds | Class II | B-4: Conduct Pre-Construction Surveys and Monitoring for Breeding Birds APM BIO-2 |
| Impact B-5: The Project would result in permanent disturbance to wildlife at the proposed El Casco Substation site due to noise and increased human presence | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-4: Conduct Pre-Construction Surveys and Monitoring for Breeding Birds. B-5a: Reduce Noise Levels during Construction B-5b: Use Magnetic Coils at Entrance Gate B-5c: Use Shielded Lighting and Schedule Daylight Maintenance APM BIO-7 |
| Impact B-6: Construction activities would result in indirect or direct loss of listed plants | Class II | B-6: Conduct Surveys for Sensitive Plant Species and Flag for Avoidance APM BIO-1 APM BIO-4 |
| Impact B-7: Construction activities would result in indirect or direct loss of Quino Checkerspot habitat | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-3a: Implement Weed Control Measures APM BIO-4 |
| Impact B-8: The Project would result in habitat loss or disturbance to listed birds, including migratory birds and raptors | Class II | B-4: Conduct Pre-construction Surveys and Monitoring for Breeding Birds APM BIO-2 |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-4. Summary of Impacts and Mitigation for the Proposed Project

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|--|
| Impact B-9: The Project would result in the electrocution of listed bird species | Class II | B-9: Construct to 2006 APLIC Guidelines |
| Impact B-10: The Project would result in subtransmission line collisions by listed bird species | Class II | B-10: Utilize Collision-Reducing Techniques |
| Impact B-11: The Project would result in the loss of special-status plant species | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-3a: Implement Weed Control Measures B-6 Conduct Surveys for Sensitive Plant Species and Flag for Avoidance APM BIO-4 |
| Impact B-12: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-4 |
| Impact B-13: The Project would result in the loss of special-status reptile species | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-3a: Implement Weed Control Measures B-13a: Conduct Pre-Construction Surveys and Relocate Sensitive Reptiles B-13b: Monitor and Relocate Species during Grading of Substation APM BIO-8; APM BIO-12 |
| Impact B-14: The Project would result in the loss of burrowing owls | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-4 |
| Impact B-15: The Project would result in the loss of foraging habitat or disruption of nesting for special-status raptor species | Class II | B-4: Conduct pre-construction surveys and monitoring for breeding birds APM BIO-2 |
| Impact B-16: The Project would result in electrocution of special-status bird species | Class II | B-9: Construct to 2006 APLIC Guidelines |
| Impact B-17: The Project would result in subtransmission line collision by special-status bird species | Class II | B-10: Utilize Collision-reducing Techniques |
| Impact B-18: The Project would result in the loss of the American badger | Class II | B-18: Avoid Active Burrows or Nests and Relocate during the Non-Breeding Season |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-4. Summary of Impacts and Mitigation for the Proposed Project

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|--|
| Impact B-19: The Project would result in loss of special-status rodent species | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-18: Avoid Active Burrows or Nests and Relocate during the Non-Breeding Season B-19: Avoid Burrow Areas APM BIO-4 |
| Impact B-20: The Project would result in the loss of jurisdictional waters and wetlands | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance |
| Impact B-21: The Project would result in the loss or restriction of habitat connectivity in Constrained Linkage 22 | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-5a: Reduce Noise Levels during Construction B-5b: Use Magnetic Coils at Entrance Gate B-5c: Use Shielded Lighting and Schedule Daylight Maintenance APM BIO-4; APM BIO-5; APM BIO-7 |
| Impact B-22: The Project would conflict with the MSHCP | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-5a: Reduce Noise Levels during Construction B-5b: Use Magnetic Coils at Entrance Gate B-5c : Use Shielded Lighting and Schedule Daylight Maintenance APM BIO-4 |
| Cultural Resources | | |
| Impact CR-1: Project Construction Has the Potential to Affect Known Archaeological Resources | Class II | CR-1a: Avoid Environmentally Sensitive Areas CR-1b: Cultural Resources Treatment Plan (CRTP) CR-1c: Construction Monitoring APM CUL-1; APM CUL-2; APM CUL-3; APM CUL-4 |
| Impact CR-2: Unanticipated Archaeological Discoveries May Be Damaged or Destroyed During Project Construction | Class II | CR-1a: Avoid Environmentally Sensitive Areas CR-1c: Construction Monitoring CR-2: Treatment of New Discoveries |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-4. Summary of Impacts and Mitigation for the Proposed Project

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|--|
| Impact CR-3: Project Construction Would Affect Significant Paleontological Resources | Class II | CR-3a: Inventory Paleontological Resources in Final APE CR-3b: Develop Paleontological Monitoring and Treatment Plan CR-3c: Monitor Construction for Paleontology CR-3d: Conduct Paleontological Data Recovery CR-3e: Train Construction Personnel APM PALEO-1; APM PALEO-2; APM PALEO-3; APM PALEO-4; APM PALEO-5; APM PALEO-6 |
| Geology and Soils | | |
| Impact GEO-1: Construction activities would cause slope instability | Class II | GEO-1: Protect Against Slope Instability APM GEO-1 |
| Impact GEO-2: Construction activities would accelerate erosion | Class II | GEO-2: Minimize Soil Erosion |
| Impact GEO-3: Project structures would be damaged by corrosive soils | Class II | GEO-3: Geotechnical Studies for Corrosive Soils APM GEO-1 |
| Impact GEO-4: Project structures would be damaged by unstable soils, landslides, earthflows, and/or debris flows | Class II | GEO-4: Geotechnical Surveys for Landslides APM GEO-1 |
| Impact GEO-5: Project structures would be damaged by seismically induced groundshaking and ground failure, including liquefaction and lateral spreading | Class II | GEO-5a: Reduce Effects of Groundshaking GEO-5b: Protect Against Liquefaction and Lateral Spreading APM GEO-2 |
| Impact GEO-6: Project structures would be damaged by surface fault rupture at crossings of active and potentially active faults | Class II | GEO-6: Minimize Project Structures within Active Fault Zones APM GEO-2; APM GEO-3 |
| Impact GEO-7: Expansive, soft, loose and/or compressible soils would damage Project structures | Class II | GEO-7; Implement Standard Engineering Methods for Problematic Soils APM GEO-1 |
| Hazards and Hazardous Materials | | |
| Impact HAZ-1: The project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials | Class II | HAZ-1a: Environmental Training and Monitoring Program HAZ-1b: Proper Disposal of Construction Waste HAZ-1c: Emergency Spill Supplies and Equipment APM HAZ-1 |
| Impact HAZ-2: The project would 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 | Class II | HAZ-1a: Environmental Training and Monitoring Program HAZ-1b: Proper Disposal of Construction Waste HAZ-1c: Emergency Spill Supplies and Equipment |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-4. Summary of Impacts and Mitigation for the Proposed Project

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|--|
| Impact HAZ-3: The project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school | Class II | HAZ-1a: Environmental Training and Monitoring Program HAZ-1b: Proper Disposal of Construction Waste HAZ-1c: Emergency Spill Supplies and Equipment |
| Impact HAZ-4: The project would 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 create a significant hazard to the public or the environment | Class III | None |
| Impact HAZ-5: For a project located within two miles of a public airport, would the project result in a safety hazard for people residing or working in the Project area | No Impact | None |
| Impact HAZ-6: The project would result in a safety hazard related to a private airstrip for people residing or working in the Project area | No Impact | None |
| Impact HAZ-7: The project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. | Class II | T-3: Ensure Emergency Response Access |
| Impact HAZ-8: The project would expose people or structures to a significant risk of loss, injury or death involving wildland fires | Class II | HAZ-8a: Prepare and Implement Fire Management Plan HAZ-8b: County Fire Department Review of Construction Methods HAZ-8c: Practice Safe Welding Procedures HAZ-8d: Fire Preventive Construction Equipment Requirements APM HAZ-1 |
| Hydrology and Water Quality | | |
| Impact HYD-1: Soil erosion and sedimentation caused by construction activities would degrade water quality | Class II | HYD-1a: Implementation of Erosion and Sediment BMPs HYD-1b: Timing of Construction Activities HYD-1c: Dispersion of Subsurface Drainage from Slope Construction Areas HYD-1d: Control of Side-Cast Material, Right-of-Way Debris, and Roadway Debris GEO-1: Protect Against Slope Instability GEO-2a: Minimization of Soil Erosion GEO-2b: Road Surface Treatment APM HYDRO-1; APM HYDRO-2a; APM HYDRO-2c; APM HYDRO-7; APM GEO-1 |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-4. Summary of Impacts and Mitigation for the Proposed Project

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|---|
| Impact HYD-2: Degradation of surface water or groundwater quality would occur from the accidental release of potentially harmful materials during construction activities | Class II | HYD-2a: Prevent Frac-out HYD-2b: Implement HDD BMPs HYD-2c: Prepare and Implement Frac-out Response Plan HYD-2d: Develop and Implement a Groundwater Remediation Plan APM HYDRO-2a; APM HYDRO-2b; APM HYDRO-2c; APM HYDRO-2d; APM HYDRO-3; APM-HYDRO-6; APM HYDRO-8 |
| Impact HYD-3: Degradation of surface water or groundwater quality would result from the accidental release of potentially harmful materials during operational activities | Class III | APM HYDRO-2; APM HYDRO-8 |
| Impact HYD-4: Disturbance of existing groundwater resources | Class II | HYD-2d: Develop and Implement a Groundwater Remediation Plan APM HYDRO-1, APM HYDRO-2a, APM HYDRO-2c; APM HYDRO-4; APM HYDRO 8 |
| Impact HYD-5: Increased runoff from the creation of new impervious areas | Class III | None |
| Impact HYD-6: Runoff introduced as a result of permanent Project features would cause the overloading of a local stormwater drainage system | Class III | APM HYDRO-2b |
| Impact HYD-7: Transmission towers or other above-ground project features located in a floodplain or watercourse could result in flooding, flood diversions, or erosion | Class II | HYD-7: Aboveground Structures Shall be Protected Against Flood and Erosion Damage |
| Impact HYD-8: Result in damage from inundation by tsunami, seiche, or mudflow | No Impact | None |
| Impact HYD-9: Expose people or structures to flooding as a result of failure of a levee or dam | No Impact | None |
| Noise | | |
| Impact N-1: Construction activities would temporarily increase local noise levels, impacting sensitive receptors and exceeding applicable noise regulations | Class III | APM NOI-1; APM NOI-2; APM NOI-3 |
| Impact N-2: Ground-borne vibration could cause a temporary nuisance during construction | Class III | APM NOI-1; APM NOI-2; APM NOI-3 |
| Impact N-3: Noise from operation of the overhead subtransmission line | Class I | None |
| Public Services and Utilities | | |
| Impact U-1: Utility system disruptions | Class II | U-1a: Notification of Utility Service Interruption |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-4. Summary of Impacts and Mitigation for the Proposed Project

| Impact | Impact Class^a | Mitigation Measure(s)^b |
|--|---------------------------------|--|
| Impact U-2: Require the need for new or physically altered public service facilities in order to maintain acceptable service ratios, response times, or other performance objectives | Class II | HAZ-8a: Prepare and Implement Fire Management Plan HAZ-8b: County Fire Department Review of Construction Methods HAZ-8c: Practice Safe Welding Procedures HAZ-8d: Fire Preventive Construction Equipment Requirements T-3: Ensure Emergency Response Access APM HAZ-1 |
| Impact U-3: Project-required utility and public service demands | Class III | None |
| Transportation and Traffic | | |
| Impact T-1: Temporary road and lane closures | Class II | T-1a: Roadway Capacity Maintenance T-1b: Work Zone Minimization T-1c: Prepare Transportation Management Plans T-1d: Restrict Lane Closures |
| Impact T-2: Traffic generated by construction | Class III | None |
| Impact T-3: Construction interference with emergency response | Class II | T-3: Ensure Emergency Response Access |
| Impact T-4: Loss of business and residential access | Class II | T-4: Public Notification |
| Impact T-5: Loss of parking | Class II | T-5: Parking Impact Provisions |
| Impact T-6: Disruption of public transit | Class II | T-6: Coordination with School Bus Routes and Transit Services |
| Impact T-7: Disruption of rail service | Class II | T-7: Coordination with Union Pacific Railroad |
| Impact T-8: Construction activities would cause temporary road closures that would impede pedestrian and/or bicycle movements | Class II | T-8: Pedestrian and Bicycle Facility Provisions |
| Impact T-9: Construction activities would cause physical damage to road ROWs | Class II | T-9: Repair Damaged Road ROWs |
| Impact T-10: Construction activities would affect aviation activities | Class II | T-10: Helicopter Lift Plan |
| Impact T-11: Construction and operations would affect aviation activities associated with public airports | Class III | None |
| Visual Resources | | |
| Impact V-1: Short-term visibility of construction activities, equipment, and night lighting | Class II | V-1a: Reduce Visibility of Construction Activities and Equipment V-1b: Reduce Construction Night Lighting Impacts |
| Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes | Class II | V-2a: Reduce In-Line Views of Land Scars V-2b: Reduce Visual Contrast from Unnatural Vegetation Lines |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-4. Summary of Impacts and Mitigation for the Proposed Project

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|--|
| Impact V-3: Increased structure contrast, industrial character, view blockage, skylining, and glare when viewed from Key Viewpoint 1 on eastbound San Timoteo Canyon Road | Class II | V-3a: Reduce Visibility of the El Casco Substation Site V-3b: Reduce Operation Night Lighting Impacts |
| Impact V-4: Increased structure contrast, industrial character, view blockage, skylining and glare when viewed from Key Viewpoint 2 in Norton Younglove Reserve | Class II | V-3a: Reduce Visibility of the El Casco Substation Site V-3b: Reduce Operation Night Lighting Impacts |
| Impact V-5: Increased structure contrast, industrial character, view blockage and glare when viewed from Key Viewpoint 3 in the new residential development north of San Timoteo Canyon Road | Class II | V-3a: Reduce Visibility of the El Casco Substation Site V-3b: Reduce Operation Night Lighting Impacts |
| Impact V-6: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 4 on eastbound SR-60 | Class III | None |
| Impact V-7: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 5 on Faircliff Street | Class III | None |
| Impact V-8: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 6 on Pine Valley Road in the Sun Lakes development | Class III | None |
| Impact V-9: Increased structure contrast and industrial character when viewed from Key Viewpoint 7 on East Lincoln Street in the City of Banning | Class III | None |
| Impact V-10: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 8 on North Juniper Avenue in the City of Yucaipa | Class II | V-10 Reduce Visibility of the Zanja Substation Modifications |
| Impact V-11: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 9 on Carter Street in the City of Yucaipa | Class III | None |
| Impact V-12: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 10 on southbound Live Oak Canyon Road | Class III | None |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC's Northerly Route Alternative Option 3

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|---|
| Air Quality | | |
| Impact AQ-1: Construction emissions exceed regional significance criteria | Class I | AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions APM AQ-1; APM AQ-2; APM AQ-3; APM AQ-4; APM AQ-5; APM AQ-6; APM AQ-7; APM AQ-8; APM AQ-9; APM AQ-10; APM AQ-11; APM AQ-12; APM AQ-13; APM AQ-14; APM AQ-15; APM AQ-16 |
| Impact AQ-2: Construction emissions exceed localized significance criteria | Class I | AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions APM AQ-1; APM AQ-2; APM AQ-3; APM AQ-4; APM AQ-5; APM AQ-6; APM AQ-7; APM AQ-8; APM AQ-9; APM AQ-10; APM AQ-11; APM AQ-12; APM AQ-13; APM AQ-14; APM AQ-15; APM AQ-16 |
| Impact AQ-3: Emissions Contribute to Climate Change | Class I | AQ-3: Avoid Sulfur Hexafluoride Emissions |
| Land Use | | |
| Impact LU-1: Conflict with applicable land use plans, policies, or regulations | Class III | None |
| Impact LU-2: Construction would temporarily disturb the land uses it traverses or adjacent land uses | Class II | LU-2a: Coordinate Construction Schedule with Public and Community Facilities LU-2b: Prepare Construction Notification Plan |
| Impact LU-3: Operation of the Project would result in permanent preclusion of land uses it traverses or adjacent land uses | Class III | None |
| Impact LU-4: Construction or operation would convert Farmland to non-agricultural use | Class III | None |
| Impact LU-5: Construction or operation would interfere with agricultural operations | Class III | None |
| Impact LU-6: Construction or operation would conflict with a Williamson Act contract | Class III | None |
| Impact LU-7: Construction or operation would result in the physical deterioration of a recreational facility due to increased use | No Impact | None |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC’s Northerly Route Alternative Option 3

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|---|
| Impact LU-8: Construction or operation would disrupt recreational activities such that recreational values would be reduced | Class II | LU-2a: Coordinate Construction Schedule with Public and Community Facilities LU-2b: Prepare Construction Notification Plan |
| Biological Resources | | |
| Impact B-1: The Project would cause temporary or permanent loss of native vegetation communities | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-1; APM BIO-4 |
| Impact B-2: The Project would cause loss of foraging or breeding habitat for wildlife | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-1; APM BIO-4 |
| Impact B-3: The Project would introduce non-native and invasive plant species | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-3a: Implement Weed Control Measures B-3b: Landscape with Native or Non-invasive Plant Species |
| Impact B-4: The Project would result in a loss of nesting birds | Class II | B-4: Conduct Pre-Construction Surveys and Monitoring for Breeding Birds APM BIO-2 |
| Impact B-5: The Project would result in permanent disturbance to wildlife at the proposed El Casco Substation site due to noise and increased human presence | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-4: Conduct Pre-Construction Surveys and Monitoring for Breeding Birds. B-5a: Reduce Noise Levels during Construction B-5b: Use Magnetic Coils at Entrance Gate B-5c: Use Shielded Lighting and Schedule Daylight Maintenance APM BIO-7 |
| Impact B-6: Construction activities would result in indirect or direct loss of listed plants | Class II | B-6: Conduct Surveys for Sensitive Plant Species and Flag for Avoidance APM BIO-1 APM BIO-4 |
| Impact B-7: Construction activities would result in indirect or direct loss of Quino Checkerspot habitat | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-3a: Implement Weed Control Measures APM BIO-4 |
| Impact B-8: The Project would result in habitat loss or disturbance to listed birds, including migratory birds and raptors | Class II | B-4: Conduct Pre-construction Surveys and Monitoring for Breeding Birds APM BIO-2 |

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

^b **APMs:** Full text of SCE’s APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC’s Northerly Route Alternative Option 3

| Impact | Impact Class^a | Mitigation Measure(s)^b |
|---|---------------------------------|--|
| Impact B-9: The Project would result in the electrocution of listed bird species | Class II | B-9: Construct to 2006 APLIC Guidelines |
| Impact B-10: The Project would result in subtransmission line collisions by listed bird species | Class II | B-10: Utilize Collision-Reducing Techniques |
| Impact B-11: The Project would result in the loss of special-status plant species | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-3a: Implement Weed Control Measures B-6 Conduct Surveys for Sensitive Plant Species and Flag for Avoidance APM BIO-4 |
| Impact B-12: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-4 |
| Impact B-13: The Project would result in the loss of special-status reptile species | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-3a: Implement Weed Control Measures B-13a: Conduct Pre-Construction Surveys and Relocate Sensitive Reptiles B-13b: Monitor and Relocate Species during Grading of Substation APM BIO-8; APM BIO-12 |
| Impact B-14: The Project would result in the loss of burrowing owls | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-4 |
| Impact B-15: The Project would result in the loss of foraging habitat or disruption of nesting for special-status raptor species | Class II | B-4: Conduct pre-construction surveys and monitoring for breeding birds APM BIO-2 |
| Impact B-16: The Project would result in electrocution of special-status bird species | Class II | B-9: Construct to 2006 APLIC Guidelines |
| Impact B-17: The Project would result in subtransmission line collision by special-status bird species | Class II | B-10: Utilize Collision-reducing Techniques |
| Impact B-18: The Project would result in the loss of the American badger | Class II | B-18: Avoid Active Burrows or Nests and Relocate during the Non-Breeding Season |

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

^b **APMs:** Full text of SCE’s APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC's Northerly Route Alternative Option 3

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|--|
| Impact B-19: The Project would result in loss of special-status rodent species | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-18; Avoid Active Burrows or Nests and Relocate during the Non-Breeding Season B-19: Avoid Burrow Areas APM BIO-4 |
| Impact B-20: The Project would result in the loss of jurisdictional waters and wetlands | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance |
| Impact B-21: The Project would result in the loss or restriction of habitat connectivity in Constrained Linkage 22 | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-5a: Reduce Noise Levels during Construction B-5b: Use Magnetic Coils at Entrance Gate B-5c: Use Shielded Lighting and Schedule Daylight Maintenance APM BIO-4; APM BIO-5; APM BIO-7 |
| Impact B-22: The Project would conflict with the MSHCP | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-5a: Reduce Noise Levels during Construction B-5b: Use Magnetic Coils at Entrance Gate B-5c : Use Shielded Lighting and Schedule Daylight Maintenance APM BIO-4 |
| Cultural Resources | | |
| Impact CR-1: Project Construction Has the Potential to Affect Known Archaeological Resources | Class II | CR-1a: Avoid Environmentally Sensitive Areas CR-1b: Cultural Resources Treatment Plan (CRTP) CR-1c: Construction Monitoring APM CUL-1; APM CUL-2; APM CUL-3; APM CUL-4 |
| Impact CR-2: Unanticipated Archaeological Discoveries May Be Damaged or Destroyed During Project Construction | Class II | CR-1a: Avoid Environmentally Sensitive Areas CR-1c: Construction Monitoring CR-2: Treatment of New Discoveries |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC’s Northerly Route Alternative Option 3

| Impact | Impact Class^a | Mitigation Measure(s)^b |
|---|---------------------------------|--|
| Impact CR-3: Project Construction Would Affect Significant Paleontological Resources | Class II | CR-3a: Inventory Paleontological Resources in Final APE CR-3b: Develop Paleontological Monitoring and Treatment Plan CR-3c: Monitor Construction for Paleontology CR-3d: Conduct Paleontological Data Recovery CR-3e: Train Construction Personnel APM PALEO-1; APM PALEO-2; APM PALEO-3; APM PALEO-4; APM PALEO-5; APM PALEO-6 |
| Impact CR-4: Pole Replacement Has the Potential to Indirectly Affect Historical Resources | Class I | CR-1a: Avoid Environmentally Sensitive Areas CR-1b: Cultural Resources Treatment Plan (CRTP) CR-1c: Construction Monitoring CR-3e: Train Construction Personnel |
| Geology and Soils | | |
| Impact GEO-1: Construction activities would cause slope instability | Class II | GEO-1 Protect Against Slope Instability APM GEO-1 |
| Impact GEO-2: Construction activities would accelerate erosion | Class II | GEO-2 Minimize Soil Erosion |
| Impact GEO-3: Project structures would be damaged by corrosive soils | Class II | GEO-3 Geotechnical Studies for Corrosive Soils APM GEO-1 |
| Impact GEO-4: Project structures would be damaged by unstable soils, landslides, earthflows, and/or debris flows | Class II | GEO-4 Geotechnical Surveys for Landslides APM GEO-1 |
| Impact GEO-5: Project structures would be damaged by seismically induced groundshaking and ground failure, including liquefaction and lateral spreading | Class II | GEO-5a Reduce Effects of Groundshaking GEO-5b Protect Against Liquefaction and Lateral Spreading APM GEO-2 |
| Impact GEO-6: Project structures would be damaged by surface fault rupture at crossings of active and potentially active faults | Class II | GEO-6 Minimize Project Structures within Active Fault Zones APM GEO-2; APM GEO-3 |
| Impact GEO-7: Expansive, soft, loose and/or compressible soils would damage Project structures | Class II | GEO-7 Implement Standard Engineering Methods for Problematic Soils APM GEO-1 |
| Hazards and Hazardous Materials | | |
| Impact HAZ-1: The project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials | Class II | HAZ-1a: Environmental Training and Monitoring Program HAZ-1b: Proper Disposal of Construction Waste HAZ-1c: Emergency Spill Supplies and Equipment APM HAZ-1 |

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

^b **APMs:** Full text of SCE’s APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC's Northerly Route Alternative Option 3

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|---|
| Impact HAZ-2: The project would 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 | Class II | HAZ-1a: Environmental Training and Monitoring Program HAZ-1b: Proper Disposal of Construction Waste HAZ-1c: Emergency Spill Supplies and Equipment |
| Impact HAZ-3: The project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school | Class II | HAZ-1a: Environmental Training and Monitoring Program HAZ-1b: Proper Disposal of Construction Waste HAZ-1c: Emergency Spill Supplies and Equipment |
| Impact HAZ-4: The project would 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 create a significant hazard to the public or the environment | Class III | None |
| Impact HAZ-5: For a project located within two miles of a public airport, would the project result in a safety hazard for people residing or working in the Project area | No Impact | None |
| Impact HAZ-6: The project would result in a safety hazard related to a private airstrip for people residing or working in the Project area | No Impact | None |
| Impact HAZ-7: The project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. | Class II | T-3: Ensure Emergency Response Access |
| Impact HAZ-8: The project would expose people or structures to a significant risk of loss, injury or death involving wildland fires | Class II | HAZ-8a: Prepare and Implement Fire Management Plan HAZ-8b: County Fire Department Review of Construction Methods HAZ-8c: Practice Safe Welding Procedures HAZ-8d: Fire Preventive Construction Equipment Requirements APM HAZ-1 |
| Hydrology and Water Quality | | |
| Impact HYD-1: Soil erosion and sedimentation caused by construction activities would degrade water quality | Class II | HYD-1a: Implementation of Erosion and Sediment BMPs HYD-1b: Timing of Construction Activities HYD-1c: Dispersion of Subsurface Drainage from Slope Construction Areas HYD-1d: Control of Side-Cast Material, Right-of-Way Debris, and Roadway Debris GEO-1: Protect Against Slope Instability GEO-2a: Minimization of Soil Erosion GEO-2b: Road Surface Treatment |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC's Northerly Route Alternative Option 3

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|---|
| | | APM HYDRO-1; APM HYDRO-2a; APM HYDRO-2c; APM HYDRO-7; APM GEO-1 |
| Impact HYD-2: Degradation of surface water or groundwater quality would occur from the accidental release of potentially harmful materials during construction activities | Class II | HYD-2a: Prevent Frac-out HYD-2b: Implement HDD BMPs HYD-2c: Prepare and Implement Frac-out Response Plan HYD-2d: Develop and Implement a Groundwater Remediation Plan APM HYDRO-2a; APM HYDRO-2b; APM HYDRO-2c; APM HYDRO-2d; APM HYDRO-3; APM-HYDRO-6; APM HYDRO-8 |
| Impact HYD-3: Degradation of surface water or groundwater quality would result from the accidental release of potentially harmful materials during operational activities | Class III | APM HYDRO-2; APM HYDRO-8 |
| Impact HYD-4: Disturbance of existing groundwater resources | Class II | HYD-2d: Develop and Implement a Groundwater Remediation Plan APM HYDRO-1, APM HYDRO-2a, APM HYDRO-2c; APM HYDRO-4; APM HYDRO 8 |
| Impact HYD-5: Increased runoff from the creation of new impervious areas | Class III | None |
| Impact HYD-6: Runoff introduced as a result of permanent Project features would cause the overloading of a local stormwater drainage system | Class III | APM HYDRO-2b |
| Impact HYD-7: Transmission towers or other above-ground project features located in a floodplain or watercourse could result in flooding, flood diversions, or erosion | Class II | HYD-7: Aboveground Structures Shall be Protected Against Flood and Erosion Damage |
| Impact HYD-8: Result in damage from inundation by tsunamis, seiche, or mudflow | No Impact | None |
| Impact HYD-9: Expose people or structures to flooding as a result of failure of a levee or dam | No Impact | None |
| Noise | | |
| Impact N-1: Construction activities would temporarily increase local noise levels, impacting sensitive receptors and exceeding applicable noise regulations | Class III | APM NOI-1; APM NOI-2; APM NOI-3 |
| Impact N-2: Ground-borne vibration could cause a temporary nuisance during construction | Class III | APM NOI-1; APM NOI-2; APM NOI-3 |
| Impact N-3: Noise from operation of the overhead subtransmission line | Class I | None |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC's Northerly Route Alternative Option 3

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|--|
| Public Services and Utilities | | |
| Impact U-1: Utility system disruptions | Class II | U-1a: Notification of Utility Service Interruption |
| Impact U-2: Require the need for new or physically altered public service facilities in order to maintain acceptable service ratios, response times, or other performance objectives | Class II | HAZ-8a: Prepare and Implement Fire Management Plan HAZ-8b: County Fire Department Review of Construction Methods HAZ-8c: Practice Safe Welding Procedures HAZ-8d: Fire Preventive Construction Equipment Requirements T-3: Ensure Emergency Response Access APM HAZ-1 |
| Impact U-3: Project-required utility and public service demands | Class III | None |
| Transportation and Traffic | | |
| Impact T-1: Temporary road and lane closures | Class II | T-1a: Roadway Capacity Maintenance T-1b: Work Zone Minimization T-1c: Prepare Transportation Management Plans T-1d: Restrict Lane Closures |
| Impact T-2: Traffic generated by construction | Class III | None |
| Impact T-3: Construction interference with emergency response | Class II | T-3: Ensure Emergency Response Access |
| Impact T-4: Loss of business and residential access | Class II | T-4: Public Notification |
| Impact T-5: Loss of parking | Class II | T-5: Parking Impact Provisions |
| Impact T-6: Disruption of public transit | Class II | T-6: Coordination with School Bus Routes and Transit Services |
| Impact T-7: Disruption of rail service | Class II | T-7: Coordination with Union Pacific Railroad |
| Impact T-8: Construction activities would cause temporary road closures that would impede pedestrian and/or bicycle movements | Class II | T-8: Pedestrian and Bicycle Facility Provisions |
| Impact T-9: Construction activities would cause physical damage to road ROWs | Class II | T-9: Repair Damaged Road ROWs |
| Impact T-10: Construction activities would affect aviation activities | Class II | T-10: Helicopter Lift Plan |
| Impact T-11: Construction and operations would affect aviation activities associated with public airports | Class III | None |
| Visual Resources | | |
| Impact V-1: Short-term visibility of construction activities, equipment, and night lighting | Class II | V-1a: Reduce Visibility of Construction Activities and Equipment V-1b: Reduce Construction Night Lighting Impacts |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC’s Northerly Route Alternative Option 3

| Impact | Impact Class^a | Mitigation Measure(s)^b |
|--|---------------------------------|--|
| Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes | Class II | V-2a: Reduce In-Line Views of Land Scars V-2b: Reduce Visual Contrast from Unnatural Vegetation Lines |
| Impact V-3: Increased structure contrast, industrial character, view blockage, skylining, and glare when viewed from Key Viewpoint 1 on eastbound San Timoteo Canyon Road | Class II | V-3a: Reduce Visibility of the El Casco Substation Site V-3b: Reduce Operation Night Lighting Impacts |
| Impact V-4: Increased structure contrast, industrial character, view blockage, skylining and glare when viewed from Key Viewpoint 2 in Norton Younglove Reserve | Class II | V-3a: Reduce Visibility of the El Casco Substation Site V-3b: Reduce Operation Night Lighting Impacts |
| Impact V-5: Increased structure contrast, industrial character, view blockage and glare when viewed from Key Viewpoint 3 in the new residential development north of San Timoteo Canyon Road | Class II | V-3a: Reduce Visibility of the El Casco Substation Site V-3b: Reduce Operation Night Lighting Impacts |
| Impact V-6: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 4 on eastbound SR-60 | Class III | None |
| Impact V-7: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 5 on Faircliff Street | Class III | None |
| Impact V-8: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 6 on Pine Valley Road in the Sun Lakes development | Class III | None |
| Impact V-9: Increased structure contrast and industrial character when viewed from Key Viewpoint 7 on East Lincoln Street in the City of Banning | Class III | None |
| Impact V-10: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 8 on North Juniper Avenue in the City of Yucaipa | Class II | V-10: Reduce Visibility of the Zanja Substation Modifications |
| Impact V-11: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 9 on Carter Street in the City of Yucaipa | Class III | None |
| Impact V-12: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 10 on southbound Live Oak Canyon Road | Class III | None |

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

^b **APMs:** Full text of SCE’s APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-5. Summary of Impacts and Mitigation for the CPUC’s Northerly Route Alternative Option 3

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|------------------------------------|
| Impact V-13: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 11 on westbound Summit Drive | Class I | None |
| Impact V-14: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 12 on Cedar Hollow Road | Class III | None |
| Impact V-15: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 13 on San Timoteo Canyon | Class III | None |

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

^b **APMs:** Full text of SCE’s APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|---|
| Air Quality | | |
| Impact AQ-1: Construction emissions exceed regional significance criteria | Class I | AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions APM AQ-1; APM AQ-2; APM AQ-3; APM AQ-4; APM AQ-5; APM AQ-6; APM AQ-7; APM AQ-8; APM AQ-9; APM AQ-10; APM AQ-11; APM AQ-12; APM AQ-13; APM AQ-14; APM AQ-15; APM AQ-16 |
| Impact AQ-2: Construction emissions exceed localized significance criteria | Class I | AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions AQ-1a: Fugitive Dust Controls AQ-1b: Control Exhaust Emissions APM AQ-1; APM AQ-2; APM AQ-3; APM AQ-4; APM AQ-5; APM AQ-6; APM AQ-7; APM AQ-8; APM AQ-9; APM AQ-10; APM AQ-11; APM AQ-12; APM AQ-13; APM AQ-14; APM AQ-15; APM AQ-16 |
| Impact AQ-3: Emissions Contribute to Climate Change | Class I | AQ-3: Avoid Sulfur Hexafluoride Emissions |
| Land Use | | |
| Impact LU-1: Conflict with applicable land use plans, policies, or regulations | Class III | None |
| Impact LU-2: Construction would temporarily disturb the land uses it traverses or adjacent land uses | Class I | LU-2a: Coordinate Construction Schedule with Public and Community Facilities LU-2b: Prepare Construction Notification Plan |
| Impact LU-3: Operation of the Project would result in permanent preclusion of land uses it traverses or adjacent land uses | Class III | None |
| Impact LU-4: Construction or operation would convert Farmland to non-agricultural use | Class III | None |
| Impact LU-5: Construction or operation would interfere with agricultural operations | Class III | None |
| Impact LU-6: Construction or operation would conflict with a Williamson Act contract | Class III | None |
| Impact LU-7: Construction or operation would result in the physical deterioration of a recreational facility due to increased use | No Impact | None |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|---|
| Impact LU-8: Construction or operation would disrupt recreational activities such that recreational values would be reduced | Class I | LU-2a: Coordinate Construction Schedule with Public and Community Facilities LU-2b: Prepare Construction Notification Plan |
| Biological Resources | | |
| Impact B-1: The Project would cause temporary or permanent loss of native vegetation communities | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-1; APM BIO-4 |
| Impact B-2: The Project would cause loss of foraging or breeding habitat for wildlife | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-1; APM BIO-4 |
| Impact B-3: The Project would introduce non-native and invasive plant species | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-3a: Implement Weed Control Measures B-3b: Landscape with Native or Non-invasive Plant Species |
| Impact B-4: The Project would result in a loss of nesting birds | Class II | B-4: Conduct Pre-Construction Surveys and Monitoring for Breeding Birds APM BIO-2 |
| Impact B-5: The Project would result in permanent disturbance to wildlife at the proposed El Casco Substation site due to noise and increased human presence | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-4: Conduct Pre-Construction Surveys and Monitoring for Breeding Birds. B-5a: Reduce Noise Levels during Construction B-5b: Use Magnetic Coils at Entrance Gate B-5c: Use Shielded Lighting and Schedule Daylight Maintenance APM BIO-7 |
| Impact B-6: Construction activities would result in indirect or direct loss of listed plants | Class II | B-6: Conduct Surveys for Sensitive Plant Species and Flag for Avoidance APM BIO-1 APM BIO-4 |
| Impact B-7: Construction activities would result in indirect or direct loss of Quino Checkerspot habitat | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-3a: Implement Weed Control Measures APM BIO-4 |
| Impact B-8: The Project would result in habitat loss or disturbance to listed birds, including migratory birds and raptors | Class II | B-4: Conduct Pre-construction Surveys and Monitoring for Breeding Birds APM BIO-2 |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class^a | Mitigation Measure(s)^b |
|---|---------------------------------|--|
| Impact B-9: The Project would result in the electrocution of listed bird species | Class II | B-9: Construct to 2006 APLIC Guidelines |
| Impact B-10: The Project would result in subtransmission line collisions by listed bird species | Class II | B-10: Utilize Collision-Reducing Techniques |
| Impact B-11: The Project would result in the loss of special-status plant species | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-3a: Implement Weed Control Measures B-6 Conduct Surveys for Sensitive Plant Species and Flag for Avoidance APM BIO-4 |
| Impact B-12: Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-4 |
| Impact B-13: The Project would result in the loss of special-status reptile species | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-3a: Implement Weed Control Measures B-13a: Conduct Pre-Construction Surveys and Relocate Sensitive Reptiles B-13b: Monitor and Relocate Species during Grading of Substation APM BIO-8; APM BIO-12 |
| Impact B-14: The Project would result in the loss of burrowing owls | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance APM BIO-4 |
| Impact B-15: The Project would result in the loss of foraging habitat or disruption of nesting for special-status raptor species | Class II | B-4: Conduct pre-construction surveys and monitoring for breeding birds APM BIO-2 |
| Impact B-16: The Project would result in electrocution of special-status bird species | Class II | B-9: Construct to 2006 APLIC Guidelines |
| Impact B-17: The Project would result in subtransmission line collision by special-status bird species | Class II | B-10: Utilize Collision-reducing Techniques |
| Impact B-18: The Project would result in the loss of the American badger | Class II | B-18: Avoid Active Burrows or Nests and Relocate during the Non-Breeding Season |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|--|
| Impact B-19: The Project would result in loss of special-status rodent species | Class II | B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-18; Avoid Active Burrows or Nests and Relocate during the Non-Breeding Season B-19: Avoid Burrow Areas APM BIO-4 |
| Impact B-20: The Project would result in the loss of jurisdictional waters and wetlands | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance |
| Impact B-21: The Project would result in the loss or restriction of habitat connectivity in Constrained Linkage 22 | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-5a: Reduce Noise Levels during Construction B-5b: Use Magnetic Coils at Entrance Gate B-5c: Use Shielded Lighting and Schedule Daylight Maintenance APM BIO-4; APM BIO-5; APM BIO-7 |
| Impact B-22: The Project would conflict with the MSHCP | Class II | B-1a: Prepare and Implement a Habitat Restoration/Compensation Plan B-1b: Provide Documentation of Regulatory Permit Acquisition and MSHCP Compliance B-5a: Reduce Noise Levels during Construction B-5b: Use Magnetic Coils at Entrance Gate B-5c : Use Shielded Lighting and Schedule Daylight Maintenance APM BIO-4 |
| Cultural Resources | | |
| Impact CR-1: Project Construction Has the Potential to Affect Known Archaeological Resources | Class II | CR-1a: Avoid Environmentally Sensitive Areas CR-1b: Cultural Resources Treatment Plan (CRTP) CR-1c: Construction Monitoring APM CUL-1; APM CUL-2; APM CUL-3; APM CUL-4 |
| Impact CR-2: Unanticipated Archaeological Discoveries May Be Damaged or Destroyed During Project Construction | Class II | CR-1a: Avoid Environmentally Sensitive Areas CR-1c: Construction Monitoring CR-2: Treatment of New Discoveries |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|--|
| Impact CR-3: Project Construction Would Affect Significant Paleontological Resources | Class II | CR-3a: Inventory Paleontological Resources in Final APE CR-3b: Develop Paleontological Monitoring and Treatment Plan CR-3c: Monitor Construction for Paleontology CR-3d: Conduct Paleontological Data Recovery CR-3e: Train Construction Personnel APM PALEO-1; APM PALEO-2; APM PALEO-3; APM PALEO-4; APM PALEO-5; APM PALEO-6 |
| Geology and Soils | | |
| Impact GEO-1: Construction activities would cause slope instability | Class II | GEO-1 Protect Against Slope Instability APM GEO-1 |
| Impact GEO-2: Construction activities would accelerate erosion | Class II | GEO-2 Minimize Soil Erosion |
| Impact GEO-3: Project structures would be damaged by corrosive soils | Class II | GEO-3 Geotechnical Studies for Corrosive Soils APM GEO-1 |
| Impact GEO-4: Project structures would be damaged by unstable soils, landslides, earthflows, and/or debris flows | Class II | GEO-4 Geotechnical Surveys for Landslides APM GEO-1 |
| Impact GEO-5: Project structures would be damaged by seismically induced groundshaking and ground failure, including liquefaction and lateral spreading | Class II | GEO-5a Reduce Effects of Groundshaking GEO-5b Protect Against Liquefaction and Lateral Spreading APM GEO-2 |
| Impact GEO-6: Project structures would be damaged by surface fault rupture at crossings of active and potentially active faults | Class II | GEO-6 Minimize Project Structures within Active Fault Zones APM GEO-2; APM GEO-3 |
| Impact GEO-7: Expansive, soft, loose and/or compressible soils would damage Project structures | Class II | GEO-7 Implement Standard Engineering Methods for Problematic Soils APM GEO-1 |
| Hazards and Hazardous Materials | | |
| Impact HAZ-1: The project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials | Class II | HAZ-1a: Environmental Training and Monitoring Program HAZ-1b: Proper Disposal of Construction Waste HAZ-1c: Emergency Spill Supplies and Equipment APM HAZ-1 |
| Impact HAZ-2: The project would 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 | Class II | HAZ-1a: Environmental Training and Monitoring Program HAZ-1b: Proper Disposal of Construction Waste HAZ-1c: Emergency Spill Supplies and Equipment |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|---|---------------------------|--|
| Impact HAZ-3: The project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school | Class II | HAZ-1a: Environmental Training and Monitoring Program HAZ-1b: Proper Disposal of Construction Waste HAZ-1c: Emergency Spill Supplies and Equipment |
| Impact HAZ-4: The project would 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 create a significant hazard to the public or the environment | Class III | None |
| Impact HAZ-5: For a project located within two miles of a public airport, would the project result in a safety hazard for people residing or working in the Project area | No Impact | None |
| Impact HAZ-6: The project would result in a safety hazard related to a private airstrip for people residing or working in the Project area | No Impact | None |
| Impact HAZ-7: The project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. | Class II | T-3: Ensure Emergency Response Access |
| Impact HAZ-8: The project would expose people or structures to a significant risk of loss, injury or death involving wildland fires | Class II | HAZ-8a: Prepare and Implement Fire Management Plan HAZ-8b: County Fire Department Review of Construction Methods HAZ-8c: Practice Safe Welding Procedures HAZ-8d: Fire Preventive Construction Equipment Requirements APM HAZ-1 |
| Hydrology and Water Quality | | |
| Impact HYD-1: Soil erosion and sedimentation caused by construction activities would degrade water quality | Class II | HYD-1a: Implementation of Erosion and Sediment BMPs HYD-1b: Timing of Construction Activities HYD-1c: Dispersion of Subsurface Drainage from Slope Construction Areas HYD-1d: Control of Side-Cast Material, Right-of-Way Debris, and Roadway Debris GEO-1: Protect Against Slope Instability GEO-2a: Minimization of Soil Erosion GEO-2b: Road Surface Treatment APM HYDRO-1; APM HYDRO-2a; APM HYDRO-2c; APM HYDRO-7; APM GEO-1 |

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

^b **APMs:** Full text of SCE's APMs are presented in Table B-14 in Section B (Project Description) of the EIR, and in each issue area subsection in Section D (Environmental Analysis).

Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class^a | Mitigation Measure(s)^b |
|---|---------------------------------|---|
| Impact HYD-2: Degradation of surface water or groundwater quality would occur from the accidental release of potentially harmful materials during construction activities | Class II | HYD-2a: Prevent Frac-out HYD-2b: Implement HDD BMPs HYD-2c: Prepare and Implement Frac-out Response Plan HYD-2d: Develop and Implement a Groundwater Remediation Plan APM HYDRO-2a; APM HYDRO-2b; APM HYDRO-2c; APM HYDRO-2d; APM HYDRO-3; APM-HYDRO-6; APM HYDRO-8 |
| Impact HYD-3: Degradation of surface water or groundwater quality would result from the accidental release of potentially harmful materials during operational activities | Class III | APM HYDRO-2; APM HYDRO-8 |
| Impact HYD-4: Disturbance of existing groundwater resources | Class II | HYD-2d: Develop and Implement a Groundwater Remediation Plan APM HYDRO-1, APM HYDRO-2a, APM HYDRO-2c; APM HYDRO-4; APM HYDRO 8 |
| Impact HYD-5: Increased runoff from the creation of new impervious areas | Class III | None |
| Impact HYD-6: Runoff introduced as a result of permanent Project features would cause the overloading of a local stormwater drainage system | Class III | APM HYDRO-2b |
| Impact HYD-7: Transmission towers or other above-ground project features located in a floodplain or watercourse could result in flooding, flood diversions, or erosion | Class II | HYD-7: Aboveground Structures Shall be Protected Against Flood and Erosion Damage |
| Impact HYD-8: Result in damage from inundation by tsunami, seiche, or mudflow | No Impact | None |
| Impact HYD-9: Expose people or structures to flooding as a result of failure of a levee or dam | No Impact | None |
| Noise | | |
| Impact N-1: Construction activities would temporarily increase local noise levels, impacting sensitive receptors and exceeding applicable noise regulations | Class III | APM NOI-1; APM NOI-2; APM NOI-3 |
| Impact N-2: Ground-borne vibration could cause a temporary nuisance during construction | Class III | APM NOI-1; APM NOI-2; APM NOI-3 |
| Impact N-3: Noise from operation of the overhead subtransmission line | Class I | None |

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

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Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|--|
| Public Services and Utilities | | |
| Impact U-1: Utility system disruptions | Class II | U-1a: Notification of Utility Service Interruption |
| Impact U-2: Require the need for new or physically altered public service facilities in order to maintain acceptable service ratios, response times, or other performance objectives | Class II | HAZ-8a: Prepare and Implement Fire Management Plan HAZ-8b: County Fire Department Review of Construction Methods HAZ-8c: Practice Safe Welding Procedures HAZ-8d: Fire Preventive Construction Equipment Requirements T-3: Ensure Emergency Response Access APM HAZ-1 |
| Impact U-3: Project-required utility and public service demands | Class III | None |
| Transportation and Traffic | | |
| Impact T-1: Temporary road and lane closures | Class II | T-1a: Roadway Capacity Maintenance T-1b: Work Zone Minimization T-1c: Prepare Transportation Management Plans T-1d: Restrict Lane Closures |
| Impact T-2: Traffic generated by construction | Class III | None |
| Impact T-3: Construction interference with emergency response | Class II | T-3: Ensure Emergency Response Access |
| Impact T-4: Loss of business and residential access | Class II | T-4: Public Notification |
| Impact T-5: Loss of parking | Class II | T-5: Parking Impact Provisions |
| Impact T-6: Disruption of public transit | Class II | T-6: Coordination with School Bus Routes and Transit Services |
| Impact T-7: Disruption of rail service | Class II | T-7: Coordination with Union Pacific Railroad |
| Impact T-8: Construction activities would cause temporary road closures that would impede pedestrian and/or bicycle movements | Class II | T-8: Pedestrian and Bicycle Facility Provisions |
| Impact T-9: Construction activities would cause physical damage to road ROWs | Class II | T-9: Repair Damaged Road ROWs |
| Impact T-10: Construction activities would affect aviation activities | Class II | T-10: Helicopter Lift Plan |
| Impact T-11: Construction and operations would affect aviation activities associated with public airports | Class III | None |
| Visual Resources | | |
| Impact V-1: Short-term visibility of construction activities, equipment, and night lighting | Class II | V-1a: Reduce Visibility of Construction Activities and Equipment V-1b: Reduce Construction Night Lighting Impacts |

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

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Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|--|
| Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes | Class II | V-2a: Reduce In-Line Views of Land Scars V-2b: Reduce Visual Contrast from Unnatural Vegetation Lines |
| Impact V-3: Increased structure contrast, industrial character, view blockage, skylining, and glare when viewed from Key Viewpoint 1 on eastbound San Timoteo Canyon Road | Class II | V-3a: Reduce Visibility of the El Casco Substation Site V-3b: Reduce Operation Night Lighting Impacts |
| Impact V-4: Increased structure contrast, industrial character, view blockage, skylining and glare when viewed from Key Viewpoint 2 in Norton Younglove Reserve | Class II | V-3a: Reduce Visibility of the El Casco Substation Site V-3b: Reduce Operation Night Lighting Impacts |
| Impact V-5: Increased structure contrast, industrial character, view blockage and glare when viewed from Key Viewpoint 3 in the new residential development north of San Timoteo Canyon Road | Class II | V-3a: Reduce Visibility of the El Casco Substation Site V-3b: Reduce Operation Night Lighting Impacts |
| Impact V-6: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 4 on eastbound SR-60 | Class III | None |
| Impact V-7: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 5 on Faircliff Street | Class III | None |
| Impact V-8: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 6 on Pine Valley Road in the Sun Lakes development | Class III | None |
| Impact V-9: Increased structure contrast and industrial character when viewed from Key Viewpoint 7 on East Lincoln Street in the City of Banning | Class III | None |
| Impact V-10: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 8 on North Juniper Avenue in the City of Yucaipa | Class II | V-10: Reduce Visibility of the Zanja Substation Modifications |
| Impact V-11: Increased structure contrast, view blockage, and skylining when viewed from Key Viewpoint 9 on Carter Street in the City of Yucaipa | Class III | None |
| Impact V-12: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 10 on southbound Live Oak Canyon Road | Class III | None |

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

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Table ES-6. Summary of Impacts and Mitigation for the Partial Underground Alternative

| Impact | Impact Class ^a | Mitigation Measure(s) ^b |
|--|---------------------------|------------------------------------|
| Impact V-16: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 14 on northbound South Highland Home Road | Class III | None |

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

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