Executive Summary

ES.1 Introduction/Background

Southern California Edison (SCE) filed an application (Application Number A.05-04-015) for a Certificate of Public Convenience and Necessity (CPCN), accompanied by its Proponent's Environmental Assessment (PEA), with the California Public Utilities Commission (CPUC) on April 11, 2005 for the Devers–Palo Verde 500 kV No. 2 (DPV2) Transmission Line Project (Proposed Project). The CPUC identifies the DPV2 Project as Application A.05-04-015. A Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) for the DPV2 project was published in May 2006.

This ~~Draft~~ Final Environmental Impact Report/Environmental Impact Statement (~~Draft~~ Final EIR/EIS) has been prepared by the California Public Utilities Commission as Lead Agency under the California Environmental Quality Act (CEQA) and the U.S. Department of the Interior, Bureau of Land Management (BLM) under the National Environmental Policy Act (NEPA) to inform the public and to meet the needs of local, State, and federal permitting agencies to consider the project proposed by SCE (or "the Applicant").

The Proposed Project would traverse federal BLM land in both California and Arizona, as well as private land and lands under various other jurisdictions. Although the Proposed Project would be located primarily within SCE's existing easement for the existing Devers–Palo Verde No. 1 (DPV1) transmission line, there may be some areas where additional ROW would need to be acquired. Therefore, SCE has also submitted an application for a Right-of-Way Grant Permit from BLM to implement the project and comply with NEPA. In addition, because approximately 106 miles of the proposed alignment would traverse lands in Arizona (the majority of which would be on BLM lands and under federal jurisdiction), pursuant to Arizona Revised Statute 40-360 et seq., the Arizona Corporation Commission (ACC) must issue a Certificate of Environmental Compatibility (CEC) to SCE based on environmental review and an analysis of purpose and need in order for SCE to construct a transmission line. ~~Therefore, SCE has stated its intention to file its~~For this process, SCE filed an application for a CEC with the ACC in ~~late April~~ early May 2006. This application ~~would~~ serves the same general purpose as the PEA submitted to the CPUC.

Environmentally Superior/Preferred Alternative. A discussion of the Environmentally Superior/Preferred Alternative is included in Section 5.2 of this Executive Summary and in Section E of the Final EIR/EIS. Alternatives in the areas near Palo Verde Nuclear Generating Station and the Alligator Rock ACEC are found to environmentally superior/preferred. In the West of Devers segment, the Proposed Project is environmentally superior/preferred, but it may not be feasible.

Proposed Project and Historical Background

The DPV2 project as ~~currently~~ proposed by SCE includes a new 230-mile 500 kV line from the Harquahala Substation (in Arizona, near the Palo Verde nuclear power plant) to SCE's Devers Substation (in North Palm Springs, California). The 500 kV portion would follow the existing SCE 500 kV transmission line, Devers–Palo Verde No. 1 (DPV1).

The DPV2 project also includes upgrades to an additional 50 miles of 230 kV transmission lines west of the Devers Substation, called the "West of Devers" portion of the project. Forty miles of 230 kV transmission line from Devers Substation to San Bernardino Junction at the western end of San Timoteo Canyon would be

reconfigured and two separate 230 kV corridors, from San Bernardino Junction to SCE's ~~Mountain View~~San Bernardino Substation and from San Bernardino Junction to SCE's Vista Substation would be reconductored (see Figure ES-1).

As mentioned above, the proposed route for the Devers-Harquahala portion of the Proposed Project is located generally parallel to SCE's existing DPV1 transmission line route. Electrical systems and siting studies were conducted prior to construction of the DPV1 line. A regional siting study was conducted by SCE in 1976-1977 to identify routes between Devers Substation and the Palo Verde Nuclear Generating Station (PVNGS) within a 6,000-square-mile area and the DPV1 Draft Environmental Impact Statement (DEIS) was then prepared by the U.S. Department of the Interior, Bureau of Land Management (BLM) and Nuclear Regulatory Commission (NRC) (BLM and NRC, July 1978). These agencies selected the preferred route for the DPV1 transmission line that was constructed in 1982 following State approvals by the CPUC and the Arizona Corporation Commission (ACC).

After construction of the DPV1 line, applications to construct the DPV2 line between Devers Substation and PVNGS were submitted by SCE in 1985. Following reviews of SCE's PEA (1985) and the CPUC EIR (1987) in compliance with the California Environmental Quality Act (CEQA) and subsequent filing and review of SCE's 1988 Amended Application and PEA (SCE, 1988), the CPUC issued a decision approving the DPV2 project as then proposed. The Interim Order issued in December 1988 granted a CPCN to SCE that allowed construction of the project, conditioned upon compliance with an environmental mitigation program and other conditions as specified in the CPUC Final EIR (1987).

The BLM approved the DPV2 project and the proposed route following completion of a Final Supplemental EIS (BLM, 1988) in compliance with NEPA, which included the route in Arizona, and issued a Record of Decision in 1989. Later that year, the BLM issued a Right-of-Way Grant to SCE for the construction, operation, and maintenance of DPV2 across federal land, pursuant to Title V of the Federal Land Policy and Management Act of 1976. In 1989, the U.S. Fish and Wildlife Service issued a Certificate of Right-of-Way Compatibility for the portion of the DPV2 route that crosses the Kofa National Wildlife Refuge in Arizona, but a Right-of-Way Permit was never issued. In 1997, intervening events, including electric industry restructuring, led SCE to request abandonment of construction of the DPV2 project, and the CPUC granted SCE's request.

Proposed Project Purpose and Need

SCE's stated objectives for the Proposed Project are fourfold:

- **Increase California's Transmission Import Capability.** According to SCE, DPV2 will increase California's transmission import capability by 1,200 MW providing greater access to sources of low-cost energy currently operating in the Southwest.
- **Enhance the Competitive Energy Market**. SCE states that DPV2 is expected to enhance competition amongst energy suppliers by increasing access to the California energy market, providing siting incentives for future energy suppliers, and providing additional import capability.
- **Support the Energy Market in the Southwest**. DPV2 would expand the Western Electricity Coordinating Council (WECC) interstate regional transmission network and would increase the ability for California and the Southwest to pool resources, and provide emergency support in the event of generating unit outages or natural disasters.
- **Provide Increased Reliability, Insurance Value, and Operating Flexibility.** DPV2 would improve the reliability of the regional transmission system, providing insurance against major outages such as the loss of a major generating facility or of another high-voltage transmission line.

Figure ES-1. Regional Overview Map
CLICK HERE TO VIEW

This page intentionally blank.

The CAISO conducted an independent review of DPV2 and also found the DPV2 project to be a necessary and cost-effective addition to the CAISO controlled grid.[1] The CAISO Board approved the DPV2 project on February 24, 2005 and directed SCE to proceed with the permitting and construction of the transmission project, preferably to be completed by the summer of 2009. However, ~~because the project is designed to provide economic benefits and it is not primarily a reliability enhancement project,~~ SCE did not present a specific project objective related to the date of project operation.

1.1 CEQA and NEPA Process

A joint Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) ~~has been~~was ~~prepared~~ published in May 2006 by the CPUC and BLM in compliance with CEQA and NEPA requirements. This document constitutes the Final EIR/EIS on the Proposed Project. The CPUC is the State lead agency, responsible for compliance with the California Environmental Quality Act (CEQA) for the CPCN application. The Final EIR/EIS will be used by the CPUC as part of its CPCN approval process, which includes selecting project alternatives, adopting mitigation measures, and reviewing project costs.

1.1.1 CPUC Process

Pursuant to Article XII of the Constitution of the State of California, the CPUC is charged with the regulation of investor-owned public utilities, including SCE. The CPUC is the lead State agency for CEQA compliance in evaluation of the SCE's proposed DPV2 Project, and along with BLM has directed the preparation of this EIR/EIS. This EIR/EIS will be used by the Commission, in conjunction with other information developed in the Commission's formal record, to act on SCE's application for a Certificate of Public Convenience and Necessity (CPCN) for construction and operation of the Proposed Project. Under CEQA requirements, the CPUC will determine the adequacy of this Final EIR/EIS and, if adequate, will certify the document as complying with CEQA. The CPUC will also act on SCE's application for a CPCN. If it approves a project with significant and unmitigable impacts, it must state why in a "Statement of Overriding Considerations," which would be included in the Commission's decision on the application.

The CPUC has assigned Administrative Law Judge (ALJ) Charlotte TerKeurst to oversee the hearings on the Proposed Project, and Commissioner Diane Grueneich is the Assigned Commissioner for the CPCN application. The ALJ, in accordance with her Scoping Memo, will issue a Proposed Decision on the project in November 2006. The ALJ's proposed Decision will cover issues of project need, project cost, and other considerations. The CPUC expects a final decision on the DPV2 Project from the Commission in early 2007.

1.1.2 BLM Process

Because the proposed transmission line would cross approximately 110.5 miles of federal land managed by the Bureau of Land Management (BLM), the project would also require a Right-of-Way (ROW) Grant from the BLM for the portion of the project across BLM land. Therefore, SCE would be required to apply for a Right-of-Way Grant Permit from BLM to implement the project. The issuance of a Right-of-Way Grant Permit is considered a proposed action and would trigger the National Environmental Policy Act (NEPA) process. Therefore, the BLM is the federal Lead Agency for the preparation of this EIS/EIR in compliance with the requirements of the NEPA, the Council on Environmental Quality (CEQ) regula-

[1] http://www.caiso.com/docs/09003a6080/34/e4/09003a608034e440.pdf.

tion for implementing NEPA (40 Code of Federal Regulations [CFR] 1500–1508), and the BLM NEPA guidance handbook (H-1790-1). NEPA mandates that federal agencies consider the environmental consequences of a wide variety of proposed actions. Specifically, NEPA requires federal agencies to prepare an EIS for "proposals for legislation and other major federal actions significantly affecting the quality of the human environment." When the federal agency determines that a proposed action may "significantly affect the quality of human environment," production of an EIS is required (42 U.S.C 4332 (2)(c)). According to the Council on Environmental Quality's (CEQ) NEPA Regulations (40 C.F.R. 1502.14), an EIR/EIS must present the environmental impacts of the proposed action and alternatives in comparative form, defining the issues and providing a clear basis for choice by decision-makers and the public.

Unlike under CEQA, after the Final EIS is prepared, the federal lead agency must circulate the Final EIS for at least 30 days prior to making a decision on the proposed action. Once the Final EIS is published, it must be filed with the U.S. EPA's Office of Federal Activities for notification in the Federal Register.

BLM will issue a press release announcing the Final EIS/EIR, which will be available to the public for 30 days. BLM may only make a decision on the Proposed Project after completion of the 30-day availability period.

The 30-day time period for public review of a Final EIS is measured from the date of the publication in the Federal Register. The lead agency may adopt an EIS only after it determines that the EIS meets the standards for EIS adequacy under NEPA. After EIS has been adopted, the lead agency should make a decision on the proposed action, which may not be made until 90 days after publication of the NOI for the Draft EIS or 30 days after EPA has published the notice that the Final EIS has been filed, whichever is later. After preparing and adopting the EIS, and after making a decision on the proposed action, the lead agency must prepare a Record of Decision (ROD) explaining why the lead agency has taken a particular course of action. The BLM expects a decision in October or November 2006.

1.1.3 Arizona Corporation Commission Process

Approximately 106 miles of the proposed 500 kV alignment would traverse lands in Arizona, the majority of which would be on BLM lands. This portion of the alignment would extend from the State border at Blythe to switchyards in Hassayampa and Harquahala. Although Arizona does not have an equivalent to the CEQA process, the ACC, which governs electrical transmission line siting, requires environmental analysis to be performed for new transmission lines.

The Arizona Power Plant and Transmission Line Siting Committee (Siting Committee) and the ACC are responsible for the environmental review on State-jurisdictional land in Arizona, and the BLM has jurisdiction for environmental review for federal land. Pursuant to Arizona Revised Statute 40-360 et seq., the ACC is conducting the environmental review of the Arizona portion of the project.

The ACC must issue a Certificate of Environmental Compatibility to an applicant, such as SCE, before the applicant can construct a transmission line. To begin the Certificate of Environmental Compatibility process, in May 2006, SCE prepared and submitted an application to the ACC to build the transmission line. The ACC is currently reviewing the project for compliance with Arizona environmental laws and analyzes purpose and need.

The application has been distributed to the members of the Siting Committee. This committee has 180 days from the date the application is filed to come to a decision, unless the applicant allows an extension of that time period. The Siting Committee has held public hearings in June, August, and October

for the project, at which testimony and exhibits from the applicant and interveners has been presented. Witnesses for the parties are also cross-examined at the hearing and committee members may also ask questions of the witnesses. After the Siting Committee has received all of the information regarding the project, committee members consult on the project and vote to grant or deny the Certificate of Environmental Compatibility and then forward their recommendations onto the ACC.

If the Certificate of Environmental Compatibility is granted by the Siting Committee, the certificate is then forwarded to the ACC for review and action. The ACC must confirm, deny, or modify the certificate granted by the Siting Committee. Even if the Siting Committee refuses to grant a Certificate of Environmental Compatibility, the ACC, as final decision-maker, may still issue a certificate. Decisions on certificates are also made in open meetings with opportunities for additional public comment.

1.1.4 Other Agencies

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

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

1.1.5 EIR/EIS as an Informational Document

The EIR/EIS 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/EIS also evaluates alternatives to the Proposed Project that could avoid or minimize the significant environmental effects. The EIR/EIS provides a comparison of the environmental effects of the Proposed Project and the alternatives, and identifies the Environmentally Superior Alternative/Environmentally Preferable Alternative.

The DPV2 project EIR/EIS is an information document only; and does not make a recommendation regarding the approval or denial of the project. The purpose of the EIR/EIS is to inform the public on the environmental setting and impacts of the Proposed Project and alternatives. The EIR/EIS will be used by the CPUC in conducting the proceeding to determine whether to grant SCE's requested CPCN for the California portion of the project and by the BLM to determine whether to grant SCE a ROW Grant on BLM-administered land in California and Arizona in its Record of Decision. Finally, the Arizona Corporation Commission (ACC) must issue a Certificate of Environmental Compatibility to an applicant, such as SCE, before the applicant can construct a transmission line. Thus, for a project that traverses State and federal land in California and Arizona, the CPUC and ACC will conduct permitting

processes within their respective states, while the BLM will conduct permitting on federal land in both states. This Executive Summary (ES) provides an overview of the Proposed Project and alternatives considered, and the environmental findings and mitigation measures of the EIR/EIS.

1.2 Summary of ~~Draft~~ Final EIR/EIS Conclusions

This EIR/EIS 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. Full analysis is presented in the EIR/EIS for seven alternatives to the Devers-Harquahala segment of the Proposed Project, including one project alternative and one alternative to the upgrades proposed west of Devers Substation. As documented in detail in the Alternatives Screening Report (Appendix 1 to the ~~Draft~~ Final EIR/EIS), 26 additional alternatives were also considered but eliminated from detailed consideration.

Based on comparison of the environmental impacts of the Proposed Project and alternatives, the Environmentally Superior Alternative/Environmentally Preferable Alternative is identified. Based on comparison of the environmental impacts of the Proposed Project and alternatives, the Environmentally Superior Alternative/Environmentally Preferable Alternative has been identified as follows (see additional detail in Section ES.5 of this Executive Summary):

- Harquahala Junction Switchyard (the project would begin at this point)
- Proposed Project route from Harquahala Junction Switchyard to east of Alligator Rock
- Alligator Rock–North of Desert Center Alternative to west of Alligator Rock
- Proposed Project route from west of Alligator Rock to Devers Substation
- Proposed West of Devers upgrades unless determined to be infeasible, in which case the Devers-Valley No. 2 Alternative would be constructed.

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 listing all impacts identified in the ~~Draft~~ Final EIR/EIS.

1.3 Description of the Proposed Project

SCE proposes to construct a new 230-mile, 500 kV electric transmission line between Devers Substation in California and Harquahala Generating Substation in Arizona (referred to as "Devers-Harquahala" or D-H) and also to replace 48.2 miles of 230 kV transmission lines in California (referred to as "West of Devers" or WOD upgrades). The upgraded lines would connect directly to the Devers 230 kV bus. The entire project would span 278 miles, with approximately 176 miles in California and 102 miles in Arizona. Section B presents a detailed description of the Proposed Project; the general location is illustrated in Figure ES-1.

The proposed route for the DPV2 transmission line is located generally parallel to SCE's existing DPV1 transmission line route. The majority of the proposed Devers-Harquahala 500 kV transmission line would be constructed within the 130-foot-wide ROW on public land granted in perpetuity to SCE for the DPV2 project by the BLM in 1989. The ROW was granted for a total of 149.9 linear miles of public land between Devers and PVNGS, 57.2 miles in California and 92.7 miles in Arizona, including land managed by the BLM, USFWS, U.S. Department of Defense (DOD), and U.S. Bureau of Reclamation (BOR). Each of the components is described below.

1.3.1 Devers-Harquahala

The 230-mile 500 kV segment of the project includes the following components:

- Construction of a 500 kV transmission line from the Harquahala Generating Station switchyard, located near the Palo Verde Nuclear Generating Station (PVNGS) west of Phoenix, Arizona, to SCE's Devers Substation, located near Palm Springs, California
- Construction of the Midpoint Substation approximately 10 miles southwest of Blythe, California and adjacent to the proposed Devers-Harquahala 500 kV transmission line (this is an optional component of the Proposed Project that SCE may not construct)
- Construction of a new optical repeater facility 3 miles west of Blythe, California, within the DPV2 ROW
- Construction of two series capacitor banks, each adjacent to an existing DPV1 series capacitor bank: one in Arizona approximately 55 miles west of the Harquahala Switchyard and one in California approximately 64 miles east of Devers near I-10
- Installation of a dead-end structure, circuit breakers, and disconnect switches at the Harquahala and Devers Switchyards
- Construction and installation of telecommunication systems related to the Proposed Project, including a new telecommunications facility on Harquahala Mountain and a new Optical Ground Wire (OPGW) on the Devers–Harquahala transmission line towers.

1.3.2 West of Devers

The48-mile 230 kV upgrade portion of the project includes the following components:

- Replacement of two existing 230 kV lines with a new double-circuit 230 kV line and reconductoring of a third 230 kV line[2] for a distance of 40 miles between Devers Substation and San Bernardino Junction in San Bernardino County, California
- Reconductoring of 4.8 miles of 230 kV transmission line between San Bernardino Junction and Vista Substation, also located in San Bernardino County, California
- Reconductoring of 3.4 miles of 230 kV transmission line between San Bernardino Junction and San Bernardino Substation located in San Bernardino County, California.

1.3.3 System Improvements

Other improvements that would be required include:

- Construction of a 500 kV shunt line reactor bank, a static VAR compensator and two shunt capacitors ~~and associated disconnect switches~~ within Devers Substation
- Installation of Special Protection Scheme (SPS) relays at the Devers, Padua, and Vista Substations in California, and the PVNGS, Hassayampa, and Harquahala Switchyards in Arizona.

[2] Reconductoring involves removal of the existing conductors on an existing tower, and installation of new, larger capacity conductors. This is generally done with no change to the tower itself, although in some cases towers need to be strengthened or replaced.

1.3.4 Environmental Setting of the Proposed Project

The Proposed Project and alternatives are located within or pass adjacent to the planning boundaries of a variety of federal and local jurisdictions, including the U.S. Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (USFWS), Maricopa and La Paz Counties in Arizona, Riverside and San Bernardino Counties in California, and numerous cities.

The ROW is located within a region that is characterized by a diversity of sensitive and unique types of native vegetation communities, including perennial and ephemeral streams, riparian habitat, desert dunes and washes, oak woodland, Riversidean alluvial fan sage scrub/Riversidean sage scrub, and coastal sage scrub. The ROW is also located in a region of varying topography that ranges from mountain ranges to relatively flat valleys and low desert areas.

Arizona Environmental Setting

The Arizona portion of the Proposed Project would be located within southwestern Arizona, which is a relatively undeveloped area of the western Sonoran Desert. Mountains, hills, canyons, valleys, bajadas, and washes are all part of the landscape within this area. This region of southwestern Arizona consists of mostly native desert habitats, including uplands, xeroriparian, and riparian vegetation communities. Disturbed areas are also present along the route, including agricultural areas, pipeline and power pole infrastructure, mining activities, canals, roads (dirt and paved), grazed areas, and recreational activities. Elevations within the Arizona portion of the Proposed Project range from approximately 249 feet above mean sea level (msl) to approximately 2,182 feet above msl. In Arizona the Proposed Project would traverse many small and a few large ephemeral washes, but only one permanent watercourse, the Colorado River, would be crossed.

Within southwestern Arizona, the Proposed Project would traverse western Maricopa and southern La Paz Counties. The proposed route would begin in Maricopa County south of Interstate (I-10) in the Harquahala Plain and north of Saddle Mountain, and would proceed east, until it would turn north and cross over I-10 and the Central Arizona Project (CAP) canal. Next the route would proceed west through the southern end of the Big Horn Mountains where it would cross over and parallel the CAP canal. The route would then turn southwest crossing over I-10 again, and would continue across the Harquahala Plain through the northern end of the Eagletail Mountains until it would enter into La Paz County. At this point, the route would proceed through the Ranegras Plain and enter the northern portion of the Kofa National Wildlife Refuge (NWR), south of the New Water Mountains and north of the Kofa Mountains. The route would then traverse the La Posa Plain and State Highway 95, just clip the northeastern corner of the Yuma Proving Grounds (YPG), and proceed northwest through the central portion of the Dome Rock Mountains. The route would then turn southwest, and cross the Colorado River and the Arizona–California state line.

California Environmental Setting

In California, the ROW for the Proposed Project is located within Riverside and San Bernardino Counties. The ROW would generally parallel I-10 between the Town of Blythe, at the California-Arizona border in Riverside County, and the Vista Substation in San Bernardino County. Except for the western end of the proposed route, the majority of the route would be located in Riverside County. A large portion of the proposed route is located within the Colorado Desert, which is the western extension (and subdivision) of the Sonoran Desert that covers southern Arizona and northwestern Mexico. The Colorado Desert is a desert of much lower elevation than the Mojave Desert to the north, and much of the land lies below 1,000 feet in elevation. Common habitat communities within the Colorado Desert include

sandy desert, scrub, palm oasis, and desert wash. Summers are hot and dry and winters are typically cool and moist. The proposed route would cross several topographic and geographic features, public lands, private lands, and Indian land including, but not limited to, the Colorado River, City of Blythe, Palo Verde Valley, Chuckwalla Valley, Coachella Valley, Morongo Indian Reservation land, and San Timoteo Canyon.

In the western portion of the proposed ROW, the route would cross urbanized areas, canyons, and foothills, and traverse unincorporated areas of Riverside and San Bernardino Counties, and portions of the Cities of Banning, Beaumont, Calimesa, Redlands, Loma Linda, Colton, and Grand Terrace.

1.4 Summary of Public Involvement Activities

To this point there have been extensive public participation efforts on the DPV2 project as follows:

Public Involvement During Scoping

- The CEQA 30-day scoping process for the DPV2 Transmission Line Project began with the CPUC's issuance of the Notice of Preparation (NOP) of an EIR on October 25, 2005. Likewise, the NEPA scoping process began with the BLM's publication of the Notice of Intent (NOI) to prepare an EIS in the Federal Register on December 7, 2005 (Volume 70, Number 234, pages 72845-72846).
- The NOP was mailed on October 25, 2005, to 2,100 members of the general public; 80 representatives of over 40 different agencies; 120 environmental groups; 50 private organizations; 60 tribal government representatives; and 20 elected officials including 12 Assembly Members and State Senators. Copies of the NOP were available at 26 local repositories.
- The NOI was published on December 7, 2005 in the Federal Register. A Notice of Public Scoping Meetings was mailed to over 2,500 members of the general public; 80 representatives of over 40 different agencies; 120 environmental groups; 50 private organizations; 60 tribal government representatives; and 20 elected officials including 12 Assembly Members and State Senators, and 2,100 private citizens including those within 300 feet of the project corridor. Copies of the NOI were also available at 26 local repositories.
- Notice of the eight scoping meetings also appeared on the CPUC and BLM's project websites. Newspaper advertisements appeared in four regional newspapers on October 23, 2005 for the NOP scoping meetings and in five local newspapers between January 5 and 15, 2006 for the NOI meetings.
- In November 2005 and January 2006 the CPUC and BLM held a total of eight public scoping meetings to collect input for the scope and content of the EIR and for alternatives and mitigation measures to consider.
- An estimated 38 members of the public and representatives from organizations and government agencies attended the November 2005 meetings in California and approximately 85 members of the public and representatives from organizations and government agencies attended the January 2006 meetings in Arizona. The CPUC and BLM attended six consultation meetings with agencies and local jurisdictions to discuss the Proposed Project and hear any comments or concerns.
- Approximately 35 comments on the NOP were received from public, private, and tribal agencies and from members of the public. In December 2005, a comprehensive Scoping Report was issued and 106 copies of the Scoping Report were distributed to agencies, parties on the CPUC's Service List, and individuals who requested copies. The Scoping Report was available for review at 26 repositories, on the Internet, and by mail to agencies, parties on the CPUC's Service list, and individuals who requested copies.

- Approximately 82 comments were received after publication of the NOI from public, private, and tribal agencies and members of the public. In February and March 2006, an Addendum to the Scoping Report was issued and 141 copies of the Addendum were distributed to agencies, parties on the CPUC's Service List, and individuals who requested copies. The Addendum was available for review at 26 repositories, on the Internet, and it was mailed to agencies, parties on the CPUC's Service list, and individuals who requested copies.
- An EIR/EIS e-mail address was created along with a telephone hotline for project information, as well as an Internet site, used to post all the public environmental documents (including this ~~Draft~~ Final EIR/EIS) and to announce upcoming public meetings.

Public Involvement During Comment Period on Draft EIR/EIS

- **Draft EIR/EIS.** The CPUC issued the Draft EIR/EIS on May 4, 2006, including a detailed analysis of impacts in 13 environmental disciplines, and an evaluation of alternatives to the Proposed Project, including the No Project/Action Alternative. Copies of the full Draft EIR/EIS and Appendices were sent to 170 interested parties and agencies, and to 26 libraries used as document repositories. One hundred and sixty-two (162) copies of the Executive Summary and 79 CDs with the text of the Draft EIR/EIS were also sent out. Additional copies of the Executive Summary and of the CDs with the text of the Draft EIR/EIS were distributed at the Informational Workshops in June and July 2006. The public comment period for the Draft EIR/EIS ended August 11, 2006.
- **Notice of Availability.** A Notice of Availability (NOA) of the Draft EIR/EIS was mailed to over 4,347 interested parties, agencies, county and city departments, special districts, property owners, and occupants on or adjacent to SCE's Proposed Project route in May 2006 at the time the Draft EIR/EIS was released. The NOA included information on how to gain access to the Draft EIR/EIS, information on the Proposed Project, the dates, times and locations for the CPUC's Informational Workshops and Public Participation Hearings and how to comment on the Draft EIR/EIS. A second NOA was mailed to 5,191 people to correct a mailing error, to announce that the Devers-Valley No. 2 Alternative had become SCE's preferred route, and to announce an additional public meeting in July 2006.
- **Newspaper Notices**, including information on the Draft EIR/EIS, the project website address, and the dates and times of the Informational Workshops and Public Participation Hearings were printed at least once and up to three times in May and July 2006 in the following papers: Hemet Valley Chronicle; The Press Enterprise; The San Bernardino Sun; Redlands Daily News; The Desert Sun; The Arizona Republic; West Valley View; Palo Verde Times; The Palo Verde Times/Quartzsite Times; and the Yuma Daily Sun.
- **Public Meetings.** Six Informational Workshops and three Public Participation Hearings were held in June and July 2006. Forty-three (43) members of the public, including representatives of organizations and government agencies were documented in attendance at the CPUC Informational Workshops and Public Participation Hearings.
- **Project Website.** An Internet site was used to post all the public environmental documents (including the Draft EIR/EIS) and to announce upcoming public meetings.

1.5 Areas of Controversy / Public Scoping Issues

Private citizens and homeowners provided the majority of the comments during the Scoping process. In addition to private individuals, comments were received from organizations and government agencies. The issues raised during the public scoping process are described in detail in the Scoping Report (available on the CPUC's CEQA Project website), and are summarized below.

Issues of Concern During CEQA Scoping Process

Human Environment Issues and Concerns in California. Some public comments focused on the potential effect of the project on the human environment, including the health and safety impacts of electric and magnetic fields (EMFs) from increased EMF emissions, impacts to property values, safety and fire risk issues, noise, construction impacts, and conflicts with planned uses.

EMF. Health and safety-related issues resulting from increased EMF emissions were a primary concern of some members of the public. Comments expressed concerns about electric fields and shock hazards.

Construction Impacts. Residents expressed concern that construction of the DPV2 project would cause an increase in traffic, safety hazards, and noise; destruction of habitat; offense to aesthetic values; conflict with other land uses; and a worsening impact in combination with coinciding development projects.

Safety Issues and Fire Risk. In addition to the safety issues associated with EMF emissions, one property owner expressed concern about the risk of accidental electrocution and falling towers and cables due to mechanical failure or vehicle collision.

Impacts to Property Values. Residents and the Harquahala Valley Irrigation District expressed concern that an alternative to the DPV2 project would be detrimental to the value of their land.

Conflicts with Existing or Planned Land Uses. Residents and agencies including Riverside County Transportation and Land Management and the City of Cathedral City expressed concern about land use conflicts with the project including those with a proposed State Park, right-of-way (ROW) setbacks, future development of Paradise Valley, cropland, and new development projects.

Physical Environment Issues and Concerns in California. Comments expressed concerns with the potential impacts that the DPV2 project may have on the physical environment, particularly to biological and cultural resources and traffic and transportation. Most of the concern centered on the impact of the project on biological resources. For that resource area, conservation concerns varied from long-term landscape and habitat value to the Western Riverside County Multiple Species Habitat Conservation Plan. Comments also requested that wildlife resources be analyzed in the EIR/EIS.

Alternatives. Several comments expressed preferences for alternative routes.

Cumulative Impacts. A Glorious Land Company representative suggested that the cumulative effects on safety and reliability of the transmission lines Devers–Palo Verde No. 1, Devers–Palo Verde No. 2, Desert Southwest Transmission Project, and a Southern California Edison 230 kV line in the middle of the future development Paradise Valley would be mitigated by distancing the Proposed Project from the existing towers.

Environmental Review and Decision-Making Process: Public Involvement. Members of the public suggested different means of communication for project information. The Harquahala Valley Irrigation

District, the Harquahala Valley Power District, and Harquahala Valley Farms criticized a lack of outreach in Arizona.

Issues of Concern During NEPA Scoping Process

The categories below summarize issues of concern in the Addendum to the Scoping Report.

Human Environment Issues and Concerns. Some public comments focused on the potential effect of the project on the human environment, including the health and safety impacts of electric and magnetic fields (EMFs) from increased EMF emissions, impacts to property values, safety and fire risk issues, noise, construction impacts, and conflicts with planned uses.

EMFs. Public water works agencies expressed concern that the transmission line would cause materials in the irrigation distribution infrastructure to degrade. Other comments expressed concern that the transmission line would carry strong electric voltages dangerous to people, livestock, and wildlife.

Construction Impacts. Many comments indicated that construction of the DPV2 project would cause negative environmental impacts through work in wilderness areas, work around new tower sites, and effects of transportation on and near ROWs.

Safety Issues and Fire Risk. One comment states that the DPV2 project would place a high priority and reliance on nuclear power generation, which includes hazardous materials, dangerous processes, and the increased production of nuclear waste.

Impacts to Property Values. Various comments, including the City of Scottsdale Water Resources Department, expressed concern about negative impacts to existing and future property values, especially those properties in the Harquahala Valley region.

Conflicts with Existing or Planned Land Uses. With regard to the traversal of Kofa National Wildlife Refuge, comments asserted the project's incompatibility with the mission of the National Wildlife Refuge System to conserve fish, wildlife, plant resources, and habitat for the benefit of the general public. Many comments expressed concerns that the Harquahala-West Alternative may interfere with farming practices. Maricopa County objected to the same alternative while the City of Calimesa objected to the Proposed Project in anticipation of future development.

Physical Environment Issues and Concerns

Biological Resources Issues. Many comments expressed concern about potential impacts to wildlife, habitats, and the pristine nature of the desert landscape. Some comments requested mitigation for the combined threat of the Proposed Project and the existing DPV1 toward wildlife migration and avian behavior. The Arizona Game and Fish Department stated that the Proposed Project and subalternate routes traverse habitats of special status species and important wildlife, in particular, SCE's Subalternate Route 2 in the Plomosa and Dome Rock Mountains.

Cultural Resources Issues. Three tribal governments commented that the DPV2 project could impact cultural resources and recommended some mitigation measures.

Visual Resources Issues. Many comments criticized visual impacts both of the Proposed Project and of alternatives in combination with existing lines and in wilderness landscapes.

Water Resources Issues. The California Department of Fish and Game (CDFG) expressed concern regarding the elimination of watercourses or wetlands and requested mitigation measures.

Purpose and Need. A majority of the comments, particularly from private citizens and nonprofit groups such as the Maricopa Audubon Society, Sierra Club Grand Canyon Chapter, and the Arizona Wilderness Coalition, questioned the purpose and need for the DPV2 project. Reasons included growth in Arizona, the environmental stressor of transmission, clean energy policy abuse, environmental justice, and misrepresentation of energy demand and production.

Alternatives Issues. Comments from one NGO and three individuals expressed preference for a range of alternatives including the No Project Alternative, local generation, demand reduction, and alternative routes.

Environmental Review and Decision-Making Process. State and utilities agencies recommended information databases and methods for EIR/EIS analysis. Many comments also recommended focused study of several issue areas including energy conservation programs.

Public Involvement. Imperial County and some individuals requested improved communication about scoping meetings and the comment period.

Regulatory Compliance. Several State, regional, and tribal agencies identified permits required of SCE. SCE's Subalternate Route 3 would require amendment to the Palo Verde Community Area Plan.

ES.2 Alternatives

2.1 CEQA and NEPA Requirements for Alternatives

Both CEQA and NEPA provide guidance directing the selection of a reasonable range of alternatives for evaluation in an EIR and EIS, and the requirements are similar. This alternatives screening and evaluation process satisfies both State and federal requirements. The CEQA and NEPA requirements for selection of alternatives are described below.

Alternatives to the proposed DPV2 Project are identified and evaluated in accordance with CEQA Guidelines. CEQA Guidelines (Section 15126(a)) state:

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

CEQA Guidelines (Section 15364) define feasibility as:

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

In addition, according to the Council on Environmental Quality's (CEQ) NEPA Regulations (40 C.F.R. 1502.14), an EIS must present the environmental impacts of the proposed action and alternatives in comparative form, defining the issues and providing a clear basis for choice by decision-makers and the public. The alternatives section shall:

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

(c) Include reasonable alternatives not within the jurisdiction of the lead agency.

(d) Include the alternative of no action.

(e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

(f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

The CEQ has stated that "[r]easonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense rather than simply desirable from the standpoint of the applicant." (CEQ, 1983).

In addition to the CEQ NEPA regulations, CEQ has issued a variety of general guidance memoranda and reports that concern the implementation of NEPA. One of the most frequently cited resources for NEPA practice is CEQ's *Forty Most Asked Questions Concerning CEQ's NEPA Regulations* (Forty Questions). Although a reviewing federal court does not always give the Forty Questions the same deference as it does the CEQ NEPA Regulations, in some situations the Forty Questions have been persuasive to the judiciary. In general, alternatives are discussed in Forty Questions Nos. 1 through 7. Question No. 5b asks if the analysis of the "proposed action" in an EIS is to be treated differently than the analysis of alternatives. The response states:

> *The degree of analysis devoted to each alternative in the EIS is to be substantially similar to that devoted to the "proposed action." Section 1502.14 is titled "Alternatives, including the proposed action" to reflect such comparable treatment. Section 1502.14(b) specifically requires "substantial treatment" in the EIS of each alternative including the proposed action. This regulation does not dictate an amount of information to be provided but rather, prescribes a level of treatment, which may in turn require varying amounts of information, to enable a reviewer to evaluate and compare alternatives.*

Alternatives Screening

Alternatives to the Proposed Project were suggested during the scoping period (October 25 to November 28, 2005 and December 7, 2005 to January 20, 2006) by the general public, and federal, State and local agencies after SCE filed its Application for a CPCN. Other alternatives were developed by EIR/EIS preparers or presented by SCE in its PEA. In total, 35 alternatives were identified, ranging from minor routing adjustments to SCE's Proposed Project location, to entirely different transmission line routes, to alternative energy technologies, as well as non-wires alternatives.

Unlike CEQA's requirements, NEPA does not require screening of alternatives based on their potential to avoid or lessen significant environmental effects. However, to assure that the alternatives considered in the EIR/EIS would meet the requirements of both CEQA and NEPA, the stricter requirements of CEQA have been applied as the screening methodology. As such, a reasonable range of alternatives has been considered and evaluated as 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)), were

site suitability, economic viability, availability 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 16126.6(b)).

The detailed results of the alternatives screening analysis are contained in Appendix 1 of the EIR/EIS (Alternatives Screening Report). A summary description of the alternatives considered and the results of screening are provided below. Figures ES-2 and ES-3 illustrate the geographic locations of all alternatives considered for and eliminated from EIR/EIS analysis.

2.2 Alternatives Fully Evaluated in the EIR

The eight alternatives listed below have been chosen for detailed analysis in this EIR/EIS through the alternative screening process. These alternatives are briefly described in Section C.4 and in greater detail in Section 4 of Appendix 1. The preliminary conclusions generated during the screening process are presented briefly below and each of these alternatives is evaluated within each environmental issue area of Part D of this EIR/EIS. The alternatives are illustrated on Figure ES-2 and an individual map of each alternative is presented in Section 4 of Appendix 1 of this EIR/EIS.

2.2.1 Transmission Line Route Alternatives: Devers-Harquahala

SCE Harquahala-West Alternative

Description. As described in SCE's 2005 PEA and shown in Figure ES-2, the "Harquahala-West Subalternate Route" would begin at the Harquahala Generating Station Switchyard. Rather than departing the Harquahala Switchyard to the east paralleling the existing Harquahala-Hassayampa 500 kV towers, the Harquahala-West Alternative would depart the Harquahala Generating Station Switchyard to the west and follow section lines due west for approximately 12 miles through private and State lands to the El Paso Natural Gas Pipeline corridor. This portion of the route parallels Courthouse Road approximately one mile to the north along section lines to the pipeline corridor. At the pipeline corridor, the transmission line would proceed northwesterly along the pipeline corridor for approximately 9 miles to the intersection with the DPV1 transmission line, immediately north of the El Paso Wendon Pump Station. The length of the Harquahala-West Alternative between the Harquahala Switchyard and the junction with the DPV1 line and the proposed route is 21 miles.

Rationale for Full Analysis. This alternative would meet project objectives and would be feasible. This alternative would avoid passing adjacent to the Big Horn Mountains Wilderness Area and two crossings of I-10. It would also avoid one mile of impacts to agricultural resources along Thomas Road. Most importantly the route would be 14 miles shorter than the proposed route, thereby eliminating the temporary and permanent impacts associated with construction of a 500 kV transmission line and towers.

SCE Palo Verde Alternative

Description. Under the Palo Verde Alternative (see Figure ES-2), the DPV2 line would terminate at the Palo Verde Nuclear Generating Station (PVNGS) Switchyard instead of Harquahala Generating Station switchyard as is currently proposed. As presented in the 2005 PEA, the Palo Verde Alternative

would require construction of a new 500 kV transmission line parallel to the DPV1 transmission line for an additional approximately 14.7 miles to the PVNGS Switchyard. Rather than leave the existing DPV1 transmission corridor and follow the existing Harquahala-Hassayampa 500 kV transmission line west to the Harquahala Switchyard, this alternative route would cross from the western side of the DPV1 transmission line to the east, and continue south, parallel to the existing DPV1 and Harquahala-Hassayampa 500 kV lines. This alternative would avoid the need to construct the proposed 5-mile segment from the Harquahala Generating Station Switchyard to the Harquahala Junction. This route would serve as a backup if SCE's contract to use Harquahala Generating Station as the termination point and acquire the existing Harquahala-Hassayampa 500 kV transmission line falls through and SCE has to build a new line to the PVNGS Switchyard.

Rationale for Full Analysis. This alternative would meet project objectives and would be feasible. The Palo Verde Alternative would have largely similar environmental impacts to the Proposed Project and it would reduce impacts to agricultural resources and biological impacts to the burrowing owl. Environmental impacts would be largely similar or reduced overall and depending on the outcome of contract negotiations, this alternative may be the only feasible option for SCE.

Harquahala Junction Switchyard Alternative

Description. This alternative would require construction of a new switching station east of the Harquahala Generating Station, at the point where the existing Harquahala-Hassayampa and DPV1 transmission lines diverge (a location called "Harquahala Junction"), which would be the eastern termination point of the Proposed Project. This alternative would avoid the need to construct the 5-mile segment of the Proposed Project from Harquahala Junction to the Harquahala Generating Station Switchyard. Under this alternative, the Harquahala Junction Switchyard would be built on a site of between 6 and 40 acres in the southwest quarter of Section 25, Township 2 North, Range 8 West, near the intersection of 451st Avenue and the Thomas Road alignment in unincorporated Maricopa County, Arizona (see Figure ES-2). The land is undisturbed desert open space.

Rationale for Full Analysis. This alternative would meet project objectives and would be feasible. This alternative would eliminate or defer the need for almost 20 total miles of new 500 kV transmission line segments (5 miles of the Proposed Project from Harquahala Junction to the Harquahala Generating Station Switchyard would be eliminated and 14.7 miles of the TS-5 Project 500 kV line between Harquahala Junction and the PVNGS or Duke Arlington Power Plant could be deferred). Overall, the alternative would lessen impacts to wildlife and habitat, vegetation, noxious weeds, and agriculture in comparison to the Proposed Project. Other impacts would be similar or marginally less than the Proposed Project, with the exception of visual impacts which could be marginally greater under the alternative.

Figure ES-2. Alternatives Considered
CLICK HERE TO VIEW

This page intentionally blank.

Figure ES-3. Alternatives Eliminated
CLICK HERE TO VIEW

This page intentionally blank.

Alligator Rock Alternatives

There are three potential reroutes around the Alligator Rock area that may reduce impacts to cultural and biological resources; they are described in the following sections. A fourth route was eliminated after preliminary screening. Figure ES-2 shows the location of the Alligator Rock Alternatives.

Alligator Rock–North of Desert Center Alternative

Description. Approximately 5 miles east of Desert Center (between MPs 149 and 150), the Alligator Rock–North of Desert Center Alternative route would diverge from the Proposed Project route and would head northwest for approximately 1.5 miles before crossing I-10 to the north and continuing for 1.1 miles to an unnamed east-west dirt road along the section line. The route would then turn to the west and would parallel the roadway for approximately 1.4 miles before turning again to the northwest for 0.6 miles. The route would then turn west along another east-west section line, staying just within BLM land (north of private land at Desert Center) for another 0.6 miles before heading southwest for 1.5 miles to Ragsdale Road. The route would parallel Ragsdale Road and I-10 to the north for 3.6 miles before crossing back to the south of Ragsdale Road and I-10 to rejoining the proposed route 1.5 miles later. The 11.8-mile route would be entirely on BLM land. The Proposed Project for this segment would be 10.6 miles long.

Rationale for Full Analysis. This alternative is feasible and would meet project objectives. The Alligator Rock–North of Desert Center Alternative would avoid impacts to the highly sensitive biological and cultural area of Alligator Rock ACEC and would be located in a less sensitive area in terms of biological and cultural resources.

Alligator Rock–Blythe Energy Transmission Route Alternative

Description. This route would diverge from the Proposed Project route approximately 3.5 miles east of Desert Center and would avoid much of the Alligator Rock ACEC by following its northern edge near I-10. This alternative would follow the proposed Blythe Energy Project Transmission Line Project (BEPTL) by diverging from DPV1 to the north bringing this new alignment close to Aztec Avenue, an existing El Paso Natural Gas Pipeline/access road, which would be used for construction access. Because the proposed new alignment would be close to the pipeline access road, each of the spur roads to the tower sites would be from this existing access road. The alternative route would be approximately 4.6 miles long and the Proposed Project would be approximately 3.95 miles long in the same segment.

Rationale for Full Analysis. The alternative would be feasible and would meet project objectives. The Blythe Energy Transmission Line route would be preferred to the Proposed Project for cultural and biological resources.

Alligator Rock–South of I-10 Frontage Alternative

Description. This alternative route is the same as the route proposed for the Desert Southwest Transmission Project (see below). The South of I-10 Frontage Alternative would diverge from the Proposed Project approximately 3.5 miles east of Desert Center and would follow the Alligator Rock–Blythe Energy Transmission Route Alternative route for 3.25 miles to the point at which the BEPTL Alternative turns southwest, just east of Alligator Rock. After passing between the northern end of Alligator Rock and the I-10 itself, this alternative would continue in a westerly direction, immediately south of I-10 and Aztec Avenue for 6.5 miles. It would rejoin the Proposed Project route between MP 160 and 161. The

Alligator Rock–South of I-10 Frontage Alternative would be 9.77 miles long and the proposed route would be 9.2 miles long in the equivalent segment.

Rationale for Full Analysis. This alternative would be feasible (if not constructed in addition to DPV2) and meets project objectives. Biological and cultural impacts in the Alligator Rock ACEC would be reduced under this alternative and it would avoid steeper rocky terrain farther south at the base of the mountains.

2.2.2 Transmission Line Route Alternatives: West of Devers

Devers-Valley No. 2 Alternative

Description. The Devers-Valley No. 2 Alternative (D-V Alternative) would be a new 41.6-mile 500 kV line following the existing SCE Devers-Valley No. 1 500 kV transmission line corridor, with each new alternative tower being located about 130 feet south of the existing D-V towers, where feasible (see Figure ES-2). The route would traverse a small portion of the San Bernardino National Forest (SBNF) and the Santa Rosa and San Jacinto Mountains National Monument (National Monument). It would cross the Pacific Crest National Scenic Trail (PCT). The USDA Forest Service would need to determine whether the D-V Alternative would be consistent with management direction in the governing Forest Plan. Based on this determination the alternative could require amendments to the SBNF Land Management Plan, the National Monument Proposed Management Plan, and an existing MOU between BLM, Forest Service, and the Pacific Crest Trail Association (PCTA). While a portion of the corridor is within a designated wilderness area, the SCE transmission corridor was specifically excluded from wilderness by Congress.

Rationale for Full Analysis. This alternative would meet the project objectives and is feasible. The Devers-Valley No. 2 Alternative would avoid impacts associated with traversing high-density residential areas and tribal lands. Due to the potential legal feasibility challenges of the West of Devers segment over Morongo tribal lands and because the impacts of all West of Devers upgrades would be eliminated, this alternative was retained for full evaluation in the EIS/EIR.

2.2.3 Other Project Alternatives

Desert Southwest Transmission Project Alternative

Description. The Desert Southwest Transmission Line Project (DSWTP) Final EIS/EIR, published by the Imperial Irrigation District (IID) and BLM in October 2005, analyzes a proposed new 118-mile 500 kV line between Blythe and SCE's Devers Substation (see Figure ES-~~3~~2). The BLM issued a Record of Decision on the project on September 15, 2006. The line would originate at a new 25-acre Keim Substation/Switching Station east of the center of Blythe near the Blythe Energy Project power plant. In addition, the DSWTP would include a new Midpoint Substation/Switching Station, located at the eastern intersection of the proposed line with the existing DPV1 line.[3] The new line from the new Keim

[3] A proposed new substation in the Blythe area is referred to as "Midpoint" by both DSWTP and SCE in their respective applications; however, the actual locations of their respective Midpoint Substations differ and DSWTP's Midpoint Substation would be approximately 5 miles northwest of SCE's proposed Midpoint Substation location. In a comment on the Draft EIR/EIS, the DSW proponents asked that the CPUC and BLM consider designation of this substation location as an acceptable location for SCE to interconnect with the DSW transmission line from the Blythe power plants. As stated in Section E.2.1.3 (Proposed Project vs. Desert Southwest

Substation/Switching Station to the new Midpoint Substation/Switching station would be constructed as a double-circuit line or two parallel lines.[4] Also, in the future, a new substation could be built near Indio west of Dillon Road, adjacent to the existing transmission line facilities, to connect the proposed transmission line to IID's existing Coachella Substation.

Much of this alternative route would be in the same corridor as SCE's DPV1 transmission line, the proposed DPV2 line, and the proposed Blythe Energy Project Transmission Line Modifications (BEPTL). For the purposes of this alternatives analysis, the DSWTP differs from the Proposed Project in the following respects:

- DSWTP includes the construction of three new substation/switching stations (Keim, Midpoint, and on Dillon Road) that would not be required with the DPV2 Proposed Project (although DPV2 includes an option to construct the Midpoint Substation).
- DSWTP requires construction of one double-circuit 500 kV line or two parallel 500 kV transmission lines for 8.8 miles from Keim Substation to Midpoint Substation.
- DSWTP would diverge from the DPV1 corridor to the north (closer to I-10) in the vicinity of Alligator Rock for approximately 9.5 miles.

Rationale for Full Analysis. This alternative project would meet project objectives and would be feasible. Overall, the impacts would be very similar to those of the proposed DPV2 Project. The DSWTP route would reduce impacts to biological and cultural resources in the vicinity of Alligator Rock ACEC.

2.2.4 No Project Alternative

Consideration of the No Project Alternative is required by Section 15126.6(e) of the CEQA Guidelines, and NEPA requires the consideration of a No Action Alternative (40 C.F.R. 1502.14(c)). The analysis of the No Project Alternative must discuss the existing conditions at the time the Notice of Preparation was published (October 21, 2005), as well as: "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" [CEQA Guidelines Section 15126.6 (e)(2)]. The requirements also specify that: "If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed" [CEQA Guidelines Section 15126.6 (e)(3)(B)].

The No Action Alternative required under NEPA serves as a basis for comparison even if it would not satisfy the proposed action's purpose and need. The definition of the No Action Alternative depends on the nature of the project and in the case of the proposed DPV2 project the No Action Alternative describes what would occur without the federal agency's (BLM) approval. This EIR/EIS uses the CEQA term No Project Alternative to describe the No Action Alternative required by NEPA.

Transmission Project Alternative), the two substation sites are considered to be comparable and equally environmentally superior/preferable.

[4] Figure B-8 in the Project Description illustrates the design and dimensions of a double-circuit 500 kV line; two parallel lines would require a ROW of at least 300 feet.

Economic Issues Affecting the No Project Alternative

The No Project Alternative has been studied by SCE and the CAISO as part of the economic evaluation of DPV2 (CAISO, 2005). The economic studies demonstrated that there were sufficient economic and transmission system reliability benefits to pursue the Proposed Project over the No Project Alternative. In choosing the Proposed Project over the No Project Alternative, the CAISO showed that although there would be some reliability benefits, substantial economic benefits could occur for California ratepayers with DPV2.

Power Supply Issues Affecting the No Project Alternative

The economic studies done by CAISO for DPV2 show that by generally improving the efficiency of the transmission grid, the power supplied to California customers would come from different generators as a result of the Proposed Project (CAISO, 2005). Reducing generation from older and less efficient power plants in California and increasing generation from higher-efficiency power plants outside of California would provide an air emissions decrease in California, but an emissions increase in Arizona. Under the No Project Alternative, these power supply changes and emission benefits would not occur.

No Project Alternative Scenarios

Under the No Project Alternative, construction and operation of DPV2 would not occur. The baseline environmental conditions for the No Project Alternatives are the same as for the Proposed Project. The baseline conditions would continue to occur into the future, undisturbed, in the absence of project-related construction activities.

The objectives of the Proposed Project would remain unfulfilled under the No Project Alternative. For example, 1,200 MW of transmission import capability into California would not be added, and the additional market competition and improved system reliability and operating flexibility associated with the Proposed Project would not occur.

The absence of the Proposed Project may lead SCE or other developers to pursue other actions to achieve the objectives of the Proposed Project. The events or actions that are reasonably expected to occur in the foreseeable future without DPV2 include the following:

- The existing transmission grid and power generating facilities would continue to operate.
- Continued growth in electricity consumption and peak demand within California is expected. To serve this growth, additional electricity would need to be internally generated or imported into California by existing facilities.
- A continuation of baseline *demand-side* or *supply-side* actions may be expected to occur. *Demand-side* actions include additional energy conservation or load management. *Supply-side* actions can include accelerated development of generation, such as conventional, renewable, and distributed generation, or other major transmission projects.

2.3 Alternatives Eliminated From Further Consideration

This EIR/EIS presents two categories of alternatives eliminated from detailed EIR/EIS consideration. Certain alternatives were eliminated because they clearly did not meet project objectives or were infeasible; these alternatives that were assessed and eliminated after preliminary screening are listed below. Other alternatives required more detailed consideration in order to determine whether they should be eliminated; these are listed below as well and are described briefly herein.

Alternatives Eliminated After Preliminary Screening

The following 11 alternatives were eliminated after a preliminary alternatives screening process for the following reasons, which are discussed in more detail in Section 3.2.1 of Appendix 1 of this EIR/EIS:

- **EOR 9000+ Project**. Would not achieve the project objective of adding 1,200 MW of transmission import capability into California.
- **Granite Construction Company**. Moving the proposed route of DPV2 to avoid the active mines in this area would be difficult because of the topography of the area, adjacent Indian Reservation land, and several named faults near the site. In addition, SCE has a Permanent and Exclusive ROW on the property, which allows SCE to construct and enlarge its current use of the corridor. Therefore, a reroute around or within the property would not be necessary.
- **New 230 kV Line West of Devers**. SCE has stated that the addition of only one new 230 kV circuit under this alternative would not satisfy the project objective of increasing the import capability by 1,200 MW. Also, the addition of a fifth 230 kV circuit in the existing west of Devers ROW would result in increased ground disturbance and visual impacts relative to the Proposed Project, which would remove towers to consolidate and rebuild the existing 230 kV circuits.
- **Southwest Power Link 500 kV No. 2 Transmission Line**. Due to congestion at Miguel Substation, the general lack of adequate transmission on the San Diego Gas and Electric (SDG&E) system to move the power to the north, and need for additional ROW, the alternative was not found cost effective by SCE and it would not meet the project objectives of increasing California's transmission import capability from the Southwest and enhancing and supporting the competitive energy market in the Southwest without additional upgrades in San Diego County.
- **Path 49 Upgrade Project.** Does not qualify as an alternative to the proposed DPV2 project because some of the upgrades have already been implemented, which means that DPV2 would provide 1,200 MW in addition to, not as a substitute to, the 505 MW provided by the Path 49 Upgrade Project.
- **New Imperial Valley–Devers 500 kV Transmission Line**. Would not, by itself, increase access to generation in the Southwest U.S. or add 1,200 MW of additional transmission import capability into California, because additional transmission projects would be needed in Arizona and/or California to bring power to Imperial Valley and ultimately to Devers.
- **Double-Circuit 500 kV Line (Devers-Harquahala)**. Would fail to satisfy the project objective for increasing reliability, insurance value against extreme events, and operational flexibility because in the event that a tower failed both DPV1 and DPV2 circuits would be lost. Construction of the new DCTL would create greater short-term construction impacts than the Proposed DPV2 line due to the construction of larger towers and the requirement to remove existing towers.
- **New Devers–Mira Loma 500 kV Transmission Line**. An outage of new Devers–Mira Loma 500 kV portion in the West of Devers corridor would overload the remaining existing circuits, and so this alternative would not meet the basic project objective of adding 1,200 MW of transmission import capability. This alternative could require expanding the West of Devers ROW which is constrained in some areas due to adjacent development, and it would have technical feasibility limitations because it would not increase the overload capability on the West of Devers 230 kV system.
- **Combination of New Imperial Valley–Devers 500 kV Line and Path 49 Upgrade Project**. As discussed above, portions of the Path 49 Upgrade Project were considered by SCE and CAISO to be part of the system that exists as the baseline for measuring economic benefits derived from the addition of 1,200 MW of new import capacity that would occur with DPV2. Additionally, the re-

maining primary component of this alternative (i.e., the new Imperial Valley–Devers 500 kV line) has already been eliminated from analysis in this EIR/EIS after preliminary screening.

- **Modify DPV1 Compensation**. Increasing the compensation of the DPV1 above 50 percent resulted in subsychronous resonance (SSR) concerns for the Palo Verde nuclear generating units. This would cause prohibitive operating conditions for the Palo Verde generators and would not be technically feasible. This alternative also would not add 1,200 MW of transmission import capability into California.
- **Alligator Rock–South of DPV2 Corridor Alternative**. The magnitude of the impacts of the alternative would be greater because the length of this alternative through less disturbed native habitat/ tortoise habitat and through a sensitive cultural resources area would be greater than with the Proposed Project. This alternative would not reduce any impacts of the Proposed Project without creating greater impacts of its own.

Alternatives Eliminated After Detailed Screening

The 16 alternatives listed below were evaluated for their potential to meet CEQA and NEPA requirements but were ultimately eliminated from consideration in the EIR/EIS. Figure ES-2 depicts the location of each route alternative addressed in this section. A more detailed description of each alternative and the rationale for its consideration and elimination is presented in Draft EIR/EIS Appendix 1, Alternatives Screening Report.

2.3.1 Transmission Line Route Alternatives: Devers-Harquahala

SCE North of Kofa NWR–South of I-10 Alternative

Description. The North of Kofa NWR–South of I-10 Alternative would diverge from the proposed DPV2 route approximately 42.5 miles from its origin at Harquahala Switchyard. The route would head northwest approximately 1.5 miles before turning west-northwest towards I-10, and crossing north of Kofa NWR and the New Water Mountains, south of I-10, and eventually rejoining the proposed DPV2 route 0.5 miles north of Yuma Proving Ground and 8 miles west of Kofa NWR. The North of Kofa NWR–South of I-10 Alternative would be 3.4 miles longer than the proposed route (see Figure ES-3 in this EIR/EIS and Figure Ap.1-2 in Appendix 1 on the enclosed CD).

Rationale for Elimination. The alternative would result in similar or greater impacts to resources outside of Kofa NWR. The alternative would traverse similar habitat for biological resources as the Proposed Project, but would result in substantially more permanent ground disturbance and habitat lost. The alternative's route through the La Posa Recreation Areas would impact a greater number of recreation users than the Proposed Project's route through Kofa NWR. Views from I-10 and residences and recreation areas along Highway 95 and along the La Posa Plains would be impacted by the new transmission corridor created by the alternative and would reduce the scenic quality of these views.

SCE North of Kofa NWR–North of I-10 Alternative

Description. This alternative is similar to the North of Kofa NWR–South of I-10 Alternative (see above), except it would cross I-10 twice and Arizona U.S. Highway 60 once to follow the Celeron/All American Pipeline corridor north of I-10 (see Figure ES-3 and Figure Ap.1-2 in Appendix 1 on the enclosed CD). Approval of this alternative would require an amendment to the BLM's Lower Gila South RMP.

Rationale for Elimination. With this alternative it may not be feasible to obtain the required amendment to the Lower Gila South RMP, which currently prohibits overhead transmission lines. It would likely result in greater impacts to resources outside of Kofa NWR than with the Proposed Project within the Kofa NWR. The route would traverse similar habitat for biological resources as the Proposed Project, within a designated wildlife refuge. It would result in substantially more permanent ground disturbance and a large amount of habitat lost, resulting in significant impacts to sensitive bighorn sheep or desert tortoise populations. The alternative route through the La Posa Recreation Areas would impact a greater number of recreation users than the Proposed Project's route through Kofa NWR, and would impact more users than the North of Kofa NWR–South of I-10 alternative. Views from I-10 and residences and recreation areas along Highway 95 and along the La Posa Plains would be impacted by the new transmission corridor created by the alternative and would reduce the scenic quality of these views.

North of Kofa NWR Alternative

Description. This 37-mile alternative would diverge from the proposed route at the series capacitor just east of the Kofa NWR. It would replace a proposed route segment that is approximately 27 miles long by traveling north of Kofa NWR and south of I-10. It would rejoin the Proposed Project approximately 1.25 miles west of the boundary of Kofa NWR and south of Quartzsite (see Figure ES-3 in this EIR/EIS and Figure Ap.1-2 in Appendix 1 on the enclosed CD).

Rationale for Elimination. The North of Kofa Alternative would avoid impacts to resources within Kofa NWR. However, it would create a new corridor with associated ground disturbance (there are few usable access roads and the route would be 10 miles longer than the portion of the Proposed Project it would replace). As a result, it would have substantially greater impacts to bighorn sheep, impacts on undisturbed biological resources, and would create potentially significant visual impacts through previously undisturbed land.

SCE North of Blythe Alternative

Description. This alternative was included in SCE's 2005 PEA as Subalternate 2 (North of Blythe through Colorado Indian Reservation) and would depart the proposed DPV2 route approximately 1.5 miles west of Eagletail Mountains and 3 miles south of Salome Emergency Airfield. The route would then traverse in a northwesterly then westerly direction crossing the Colorado River. After traversing west to a point 4 miles north of Blythe Airport, the route would turn in a southwesterly direction for approximately 7 miles, where it would cross I-10 and rejoin the proposed route one mile south of I-10 (see Figure ES-3 as well as Figure Ap.1-3 in Appendix 1 on the enclosed CD). The North of Blythe Alternative would cross agricultural land and would pass through a portion of the Colorado River Indian Tribe (CRIT) Reservation. It would be 3.3 miles longer than the proposed route.

Rationale for Elimination. This alternative would be legally feasible only if the CRIT would agree to the lines being placed on their land. The regulatory feasibility of the route is questionable, because BLM approval of an amendment to the Resource Management Plan would be required. The alternative would result in greater impacts to biological resources and substantially greater impacts to visual and cultural resources. Overall, the North of Blythe Alternative would have more visual impacts than the Proposed Project segment that it would replace, because of the greater impacts on views from I-10, U.S. 60, dispersed recreation areas north of I-10 in Arizona, the Colorado River, and U.S. 95, as well as views of the McCoy Mountains west of Blythe. Given the sacred nature of the sites along the northern alternative and the need to cross the CRIT Reservation, this alternative has much higher cultural resources sensitivity than the Proposed Project.

SCE South of Blythe Alternative

Description. The South of Blythe Alternative would begin 2 miles south of the city of Blythe and would cross the Palo Verde Valley in California, about 10 miles south of the DPV1 route, crossing through a portion of Imperial County. The route would continue west 1.5 miles from the Colorado River and would then turn in a northwesterly direction for approximately 15 miles towards the proposed route. This alternative would rejoin the Proposed Project approximately 1.5 miles south of I-10 and 15 miles west of Blythe (note that this alternative would rejoin the DPV1 route west of the location of the Midpoint and Mesa Verde Substation sites). The South of Blythe Alternative would be 11.5 miles longer than the proposed route (see Figure ES-3 as well as Figure Ap.1-4 in Appendix 1 on the enclosed CD).

Rationale for Elimination. This alternative would be feasible, although a different substation location for the connection to the DPV corridor would have to be defined. The overall impact resulting from ground disturbance would be greater with this alternative and the route would establish a new transmission corridor. The route would traverse much more sensitive biological habitat near the Colorado River and Cibola Wildlife Refuge. The South of Blythe Alternative would cause greater visual impacts on views from (a) the Colorado River and East Levee road, (b) the BLM Oxbow Recreation Site, and (c) Imperial County Palo Verde Park. The South of Blythe Alternative also has a much higher cultural sensitivity than the proposed route especially to geoglyphs, circles, and alignments of special value to the Native Americans in the Ripley Intaglio and two other major intaglio groups and in the Colorado River terraces (on Arizona side of the river), Mule Mountain ACEC, and the Palo Verde Mesa.

Paradise Valley Alternative

Description. GLC Enterprises, LLC (Glorious Land Company or "GLC") submitted a protest letter on May 13, 2005 and a scoping letter on November 14, 2005 regarding SCE's application to the CPUC to construct the DPV2 Project. The letters contend that if the new 500 kV transmission line is constructed as proposed that it would have significant impacts on GLC's proposal to develop 6,400 acres of property where they plan to develop a new mixed-use community.[5] GLC has also requested a land exchange with BLM to make the project area more rectangular in shape and to allow for water pipeline access. The protest suggests that the transmission line should be constructed immediately to the south and west of the current proposed alignment and the proposed area of development to avoid impacting GLC's project. The scoping letter suggests that both the DSWTP and DPV2 be located in the same new power corridor (see Figure ES-3, as well as Figure Ap.1-6 in Appendix 1 on the enclosed CD). However, DSWTP is entirely separate and independent of the Proposed Project; an EIR/EIS for that project has been completed so issues related to it are not addressed here.

The Paradise Valley project area is bounded on the south by the Congressionally designated Mecca Hills and Orocopia Mountains Wilderness Areas, and on the north by the Joshua Tree National Park.

Rationale for Elimination. The Paradise Valley Development and the movement of the utility corridor would not be feasible if the suggested land exchange were not approved by BLM. Movement of the entire existing utility corridor (DPV1) could not legally be pursued under CEQA/NEPA. If the DPV1 line remains it its current location, the construction of the DPV2 line farther to the south from I-10 would create greater construction and permanent impacts in a new corridor to visual, biological, and cultural resources.

---

[5] The property owned by GLC includes the following Assessor's Parcel Numbers: 71306001, 2, 3, and 4; 713072001; 713050002; 713032001; 713031004, 5, and 6; 713040002, 3, 4, 5, 6, and 7.

Substation Alternatives

SCE's PEA states that the Midpoint Substation may be required as a component of the DPV2 project if the DSWTP is completed. This is considered as an optional project component that may or may not be constructed in conjunction with the rest of the project. The PEA includes the evaluation of two alternative sites for the substation that would be located south and west of Blythe, California.

Mesa Verde Substation Alternative

Description. This alternative site is located approximately 4.5 miles northwest of the Midpoint Substation site, also north of and adjacent to the DPV1 right-of-way on private land in the northwest quarter of Section 8, Township 3 North, Range 21 East, about 1.5 miles south of I-10. It is located northeast of DPV1/DPV2 ROW at the point where the corridor turns from northwest-southeast to east-west. This substation alternative would require a 5-mile access road (as opposed to 3 miles with the proposed Midpoint Substation location).

Rationale for Elimination. This alternative would require 5.5 miles of heavy-duty access road construction to reach the substation site from the Midpoint Substation area or if access is from Wiley Well Road creating much greater ground disturbance and related impacts. It would be located in habitat for the Mojave fringe-toed lizard. This alternative substation location would also have greater visibility from I-10 and the Mesa Verde area (approximately one mile south of I-10).

Wiley Well Substation Alternative

Description. This site is approximately 9 miles northwest of the proposed Midpoint Substation and 5 miles due west of the Mesa Verde site, also north of and adjacent to the DPV1 right-of-way, about 17 miles west of Blythe. The site would be constructed in Section 5, Township 3 North, Range 20 East, about 0.5 miles east of Wiley Well Road on BLM land within the BLM Designated Utility Corridor K. The alternative substation would be accessed via Wiley Well Road, an existing paved two-lane roadway with an exit off of I-10, and therefore, would require only a 100-foot access road (as opposed to 3 miles required for the proposed Midpoint Substation).

Rationale for Elimination. This alternative substation site would have much greater visibility from Wiley Well Road and I-10, greater recreational impacts due to its proximity to Chuckwalla Valley Dune Thicket ACEC, and greater biological impacts to sensitive habitat and wildlife species, such as Mojave fringed-toed lizard and desert tortoise.

2.3.2 Transmission Line Route Alternatives: West of Devers

North of Existing Morongo Corridor Alternative

Description. This 8.9-mile alternative would diverge from the proposed route approximately 0.25 miles east of the eastern edge of the Morongo Indian Reservation. From there the route would head to the northwest for approximately 3 miles before heading west to parallel the proposed route for 4 miles, approximately 2 miles to the north of the existing corridor. The route would then turn to the southwest for 1.5 miles before rejoining the Proposed Project at the City of Banning. The Proposed Project would be approximately 7.5 miles long in this segment. If requirements resulting from the tribal negotiation would require implementation of this alternative, the four existing lines would also be removed from the existing corridor and rebuilt in this corridor.

Rationale for Elimination. Based on the Morongo Tribe's consultation statements during the scoping period and because the feasibility of this alternative would hinge on approval by the Morongo Tribe (removal and rebuilding of the lines within the Reservation), there are legal feasibility concerns. There could also be technical feasibility issues with siting the four circuits in or at the base of the San Bernardino Mountains, north of the existing corridor. Moving the corridor farther north into a less developed area away from I-10 would create far greater impacts to biological and cultural resources, as well as much greater construction time and ground disturbance.

Composite Conductor Alternative

Description. This alternative would include the replacement of existing conductors in the West of Devers 230 kV system with Aluminum Conductor Composite Reinforced (ACCR) or Aluminum Conductor Composite Core (ACCC) wires. Composite conductors have recently been developed and are being tested to provide roughly two to three times the transmission capability (ampacity) of the standard proposed Aluminum Conductor Steel Reinforced (ACSR) conductors, at somewhat higher but undisclosed costs. The composite conductors could be used to reconductor all or portions of the West of Devers 230 kV system. In contrast to the Proposed Project, which would involve removing 40 miles of a single-circuit wood H-frame 230 kV line and a single-circuit lattice steel 230 kV line, this alternative would make use of existing structures in the corridor. This alternative could also involve reconductoring the existing 40-mile double-circuit 230 kV steel tower line with ACCR to increase the capability of these circuits.

Rationale for Elimination. This alternative would utilize the existing single-circuit 230 kV towers for the conductor conversion. This poses a risk to SCE achieving its system capacity goals for West of Devers because of the age of the existing structures and their outmoded design. In this case, use of the outmoded existing structures under this alternative would leave the West of Devers corridor incapable of meeting the basic project objective of adding 1,200 MW of transmission import capability. Higher costs would make the economic objectives of the Proposed Project less likely to be achieved. Finally, because reconductoring the existing towers would not remove the existing single-circuit wood H-frame and lattice steel structures in the Devers–San Bernardino Junction segment, the existing towers would remain and the visual benefit of reducing the number of tower lines in the corridor would not be achieved. Also, these structures are aged and could require slightly more frequent maintenance than the new towers that would be installed under the Proposed Project.

2.3.3 Other Project Alternatives

Convert DPV1 from AC to HVDC Transmission Line

Description. This alternative would modify the existing DPV1 500 kV transmission line to convert DPV1 from an AC line to a high-voltage direct-current (HVDC) line. Based on the preliminary power flow and stability studies, the project scope of the HVDC Alternative was identified as follows:

- Palo Verde Substation: Install a converter and associated filters for 3,000 MW
- Devers Substation: Install a converter and associated filters for 3,000 MW HVDC operation
- Build a new Devers-Valley #2 500 kV transmission line
- Build a new Valley-Serrano # 2 500 kV transmission line
- Drop load at eight SCE A bank stations
- Drop generation in Arizona for the loss of HVDC line

Rationale for Elimination. The alternative would not meet all project objectives (except increasing California's transmission import capability from the Southwest and enhancing and supporting the competitive energy market in the Southwest). An outage of this HVDC line would force SCE to drop load at a number of substations, which would require imposing SPS or RAS measures, which would conflict with Project Objectives of increased reliability, insurance value against extreme events, and flexibility in operating the grid. There would also be reduced likelihood of achieving the economic objectives.

Underground Alternative

Description. In order to construct an underground 500 kV transmission line, insulated power cables would be placed underground along specific high-impact segments or the entire transmission line alignment from Harquahala Substation to Devers Substation. There are four underground technologies for 500 kV that are commercially available: High-Pressure Fluid (HPFF) Cables; Self-Contained Fluid-Filled (SCFF); Solid Dielectric (XLPE) Transmission Cables; and Compressed Gas Insulated Transmission Lines (CGTL). Regardless of the underground technology used, a transition structure would be required at the ends of the underground segment, as well as two transition structures at each substation, to support the underground cable terminations and to connect the underground cable to the overhead bus within the substations.

Undergrounding a 230 kV line for the West of Devers segment would be feasible. ~~and has been completed by~~ SCE currently has about one circuit-mile of underground 230 kV line within its system. ~~and~~ Other utilities have longer segments of underground 230 kV lines within their systems [e.g., Pacific Gas and Electric (PG&E) for the Jefferson-Martin 230 kV Transmission Project (23.5 miles) and the Tri-Valley Capacity Increase Project (11.8 miles), and by San Diego Gas and Electric (SDG&E) for the Otay Mesa Power Purchase Agreement Transmission Project (10 miles)]~~;~~ ~~however~~However, each circuit would require a 3-foot-wide continuous trench creating much greater construction and habitat disturbance impacts than with the overhead Proposed Project.

Rationale for Elimination. Three of the four technologies would be feasible. If a short underground 500 kV segment were considered and not the entire Devers-Harquahala line (e.g., to avoid a specific high impact area), these technologies may not be cost prohibitive to construct. However, underground construction requires a continuous trench in which to install duct banks that would carry the electrical cables. This amount of trenching would create significant impacts to soils/erosion, cultural resources, biological resources as well as a longer construction time and the need for transition structures. Operational impacts would also be greater associated with maintenance and access to the lines. Repair times would be much longer as well. With the exception of permanent visual resource impacts that would be eliminated, underground construction of either a 230 kV or a 500 kV would cause much greater impacts to most issue areas than the Proposed Project.

2.3.4 Non-Transmission Alternatives

New Conventional Generation

Description. New power generation facilities could be developed in southern California as an alternative to the Proposed Project. The specific configuration of new generation would vary depending on a number of uncontrollable factors (e.g., need, market forces), but the new facilities would likely be installed in a location with convenient and economical access to fuel supplies, existing transmission facilities, major existing substations, and load centers. Construction and operation of new generation facilities would be subject to separate permitting processes that would need to be completed in advance of construction.

At this point, it is assumed that SCE would need to take an integrated approach to procure 1,200 MW of power for its customers before 2009 under this alternative.

For the New Conventional Generation Alternative, it is assumed that the most likely method of providing new power generation would be through the construction of combined cycle natural gas-fired turbine power plants. This, however, does not preclude the potential use of alternative energy technologies such as renewable resources, which are discussed in a separate section below. For the purposes of this analysis, new generation facilities are assumed to be the following:

- **Near the Devers Substation.** A new power plant could be developed similar to the 456 MW Ocotillo Energy Project, which was proposed by InterGen in May 2001 but never approved for construction, or an expanded generation facility could be installed at the 135 MW Indigo Energy Facility operated by Wildflower LLP near to the Devers Substation.
- **Near the Etiwanda Substation.** Etiwanda is northwest of the Vista Substation. New facilities could be installed at or near the 770 MW Etiwanda Generating Station (currently owned by Reliant Energy) or that facility could be repowered to create a state-of-the-art facility.
- **Near the Valley Substation.** New or expanded generation could occur at the Inland Empire Energy Center, now under construction. The Inland Empire Energy Center was originally proposed by Calpine Corporation in August 2001 and approved for 810 MW in June 2005.

Rationale for Elimination. The New Conventional Generation Alternative would not satisfy the following project objectives: adding transmission import capability into California and providing access to low-cost energy, providing additional transmission infrastructure, and improving the reliability and flexibility of the region's transmission system. The long-term operational environmental impacts of power plants (i.e., air emissions, water usage) can be balanced against the impacts of long transmission lines.

Renewable Generation Resources

Description. The principal renewable electricity generation technologies that could serve as alternatives to the Proposed Project and do not burn fossil fuels are geothermal, solar, hydroelectric, wind, and biomass. Transmission of the power generated by these technologies would also be required.

Rationale for Elimination. These technologies also would cause environmental impacts and have feasibility problems. Use of renewable generation technologies would avoid the specific impacts associated with the construction and operation of the proposed DPV2 project, but new transmission would still be required from the renewable generation locations, creating impacts similar to those of the Proposed Project, which is proposed to transmit power from an already *existing* generation source. In addition to the reliability and feasibility issues discussed above, use of renewable resources would be inconsistent with the objectives of the proposed DPV2, which are focused on creating the ability for DPV2 to increase California's transmission import capability from the Southwest and enhance and support the competitive energy market in the Southwest.

Conservation and Demand-Side Management

Description. Demand-side management programs are designed to reduce customer energy consumption. Regulatory requirements dictate that both supply-side and demand-side resource options should be considered 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.

Rationale for Elimination. Demand-Side Management. Demand response represents a small fraction of the total capacity requirement needed to meet SCE's import and supply reliability objectives. As a stand-alone alternative to DPV2, these programs cannot meet the growing electricity demands of California for two main reasons. First, SCE's 2004 Long Term Procurement Plan (LTPP) already includes the maximum amount of approved demand response investments over the next ten years, amounting to approximately 1,400 MW of peak load reduction by 2014. Even with the amount of demand response SCE is planning to implement, SCE has stated that the economic analysis on purpose and need has shown that DPV2 is still a cost-effective project in addition to approved and projected demand-side management investments (SCE, 2005a). Second, demand response programs are resources that are designed to primarily provide capacity benefits and not low-cost energy benefits such as DPV2.

Conservation. SCE's 2004 LTPP already includes the maximum reliably achievable amount of cost effective energy efficiency, amounting to nearly 6 billion kWh reduction in sales over and above what is currently implemented over the next ten years and therefore is not an alternative to DPV2. For similar reasons as the DSM alternative discussed above, the energy efficiency alternative does not meet the project's objectives and was excluded from further evaluation.

Distributed Generation

Description. Distributed Generation (DG) is defined as "generation, storage, or demand-side management devices, measures, and/or technologies connected to the distribution level of the transportation and distribution grid, usually located at or near the intended place of use" and could include technologies such as microturbines, internal combustion engines, combined heat and power (CHP) applications, fuel cells, photovoltaics and other solar energy systems, wind, landfill gas, digester gas and geothermal power generation technologies. To the extent that it is established, DG either can act to reduce the load on the SCE system or can be applied as additional system generation.

Rationale for Elimination. DG would not provide a means for SCE to meet its objectives for the project because of the comparatively small capacity of DG systems and the relatively high cost. A number of serious barriers, including technical issues, business practices, and regulatory policies, make interconnection to the electrical grid for small generators difficult. Broad use of distributed resources would likely require regulatory support and technological improvements. Lengthy local permitting processes would make it unlikely to construct sufficient quantities of DG within the timeframe required for the Proposed Project.

ES.3 Electric and Magnetic Fields

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/EIS 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/EIS does not consider magnetic fields in the context of CEQA or NEPA 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 or NEPA stan-

dards for defining health risk from EMF. As a result, EMF information is presented for the benefit of the public and decision-makers.

After several decades of study regarding potential public health risks from exposure to power line EMF, research results remains inconclusive. Several national and international panels have conducted reviews of data from multiple studies and state that there is not sufficient evidence to conclude that EMF causes cancer. Most recently the International Agency for Research on Cancer (IARC) and the California Department of Health Services (DHS) both classified EMF as a *possible* carcinogen. The information included in EIR quantifies existing EMF exposures within the community — these exposures are widespread and cover a very broad range of field intensities and duration.

Presently there are no applicable regulations related to EMF levels from power lines. However, the California Public Utilities Commission has implemented a decision (D.93-11-013) requiring utilities to incorporate "low-cost" or "no-cost" measures for managing EMF from power lines up to approximately 4 percent of total project cost. Using the 4 percent benchmark, SCE has incorporated low-cost and no-cost measures to reduce magnetic field levels ~~near schools~~ along the proposed route (including ~~deeper burial of underground lines~~combining several existing 230 kV circuits onto double-circuit transmission line structures and changing phase configuration). There are additional potential measures for reducing magnetic fields, mostly beyond the no-cost/low-cost parameters (including increasing distance from conductors, reducing conductor spacing, converting single-phase to split-phase circuits, or placing proposed transmission lines underground~~and minimizing current~~), which are described for the benefit of the public and decision-makers in reviewing the Proposed Project.

Most recently the CPUC issued Decision D.06-01-042, on January 26, 2006, affirming the low-cost/no-cost policy to mitigate EMF exposure from new utility transmission and substation projects. This decision also adopted rules and policies to improve utility design guidelines for reducing EMF. The CPUC stated "at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences." The CPUC has not adopted any specific limits or regulation on EMF levels related to electric power facilities.

3.1 Proposed Project

Devers-Harquahala 500 kV Segment. In the DPV2 Project area, the magnetic field levels at the edge of the ROW for the existing DPV1 line range from 8.3 milliGauss (mG) in Riverside County near Thousand Palms to 72.9 mG in Copper Bottom Pass, which is located in the Dome Rock Mountains in Arizona. For the Devers-Harquahala segment, field levels are expected to be reduced on the side of the ROW where the existing DPV1 line is located by approximately -0.8 to -37.9 mG. On the side of the ROW where the new line would be installed, magnetic field levels would increase by approximately +0.0 to +30.0 mG.

West of Devers (230 kV Upgrade) Segment. West of Devers, the existing magnetic field at the edge of the ROW ranges from 4.1 mG in Grand Terrance to 38.5 mG in the Loma Linda area. With the completion of the Proposed Project, field levels are estimated to be reduced at the edge of the ROW by approximately 1.0 to 18.1 mG from the existing field levels for all areas west of Devers Substation.

3.2 Alternatives – Electric and Magnetic Fields

The alternatives evaluated in this EIR/EIS are all 500 kV alternatives, so they would involve similar levels of EMFs to those described above for the Proposed Project's Devers-Harquahala segment depending upon whether the alternative is adjacent to existing transmission circuits.

Alternatives within Devers-Harquahala Segment

SCE Harquahala West Alternative. This alternative would involve construction of a new 500 kV transmission line in a corridor where no line currently exists. Therefore, there is no existing magnetic field from transmission lines. If the alternative were implemented, field levels would increase approximately +11.3 to +46.5 mG at the edge of the ROW.

SCE Palo Verde Alternative. This alternative would involve construction of a new 500 kV transmission line in an existing corridor between Harquahala Junction and the PVNGS, adjacent to the DPV1 line. Field levels at the left edge of the ROW would be reduced from 56.1 to 33.6 mG and the right edge of the ROW would be increased from 13.6 to 39.3 mG.

Harquahala Junction Switchyard Alternative. This alternative would be constructed on an approximately 40-acre undeveloped site with no sensitive receptors in the immediate vicinity. Existing field levels would increase with the construction of a new switchyard adjacent to the existing DPV1 transmission line.

Desert Southwest Transmission Project Alternative. In general the DSWTP Alternative would be similar to the Proposed Project segment from Blythe to Devers Substation, adjacent to DPV1. In the Alligator Rock ACEC area, the DSWTP Alternative would involve construction of the transmission line in a corridor where no line currently exists. An additional small community of residences is located near the proposed Keim Substation/Switching Station and a rural residence exists along Aztec Avenue in the Desert Center area of unincorporated Riverside County (south of I-10).

Alligator Rock Alternatives. These alternatives would involve construction of a new 500 kV transmission line in a corridor where no line currently exists. Therefore, there is no existing magnetic field from transmission lines; field levels would increase approximately +11.3 to +46.5 mG at the edge of the ROW with construction of any of these alternatives.

West of Devers Alternative

Devers-Valley No. 2 Alternative. The Devers-Valley No. 2 Alternative would be installed adjacent to the existing Devers-Valley No. 1 500 kV line, so baseline magnetic fields would range from about 14 to 63 mG (depending on which side of the ROW is considered). With installation of the new transmission line, magnetic fields would increase by 22 to 28 mG on the side where the new line would be installed and fields would decrease by 16 to 19 mG on the side where the existing line is located.

No Project Alternative

Under the No Project Alternative, the proposed DPV2 project would not be constructed, so changes in EMF levels associated with operation of the project would not occur. The first component of the No Project Alternative is the continuation of ongoing demand-side actions, including energy conservation and distributed generation. These actions would result in limited or no changes related to EMF. The second component of the No Project Alternative is the continuation of supply-side actions, resulting in potentially increased generation within California or increased transmission into California to serve anticipated growth in electricity consumption. The effects of new power plants and new transmission related to EMF would be approximately the same, depending on the locations of the projects, as those that would occur under the Proposed Project.

ES.4 Summary of Impacts and Mitigation Measures

4.1 Biological Resources

4.1.1 Proposed Project

Devers-Harquahala 500 kV Segment. The Proposed Project could result in temporary disturbance and/or permanent loss of sensitive vegetation communities and listed and sensitive plant and animal species. Temporary disturbance includes short-term impacts associated with construction, such as placement of new transmission towers and removal of existing towers, construction of new access roads and improvements to existing access roads, and work at conductor tensioning/splicing and staging/laydown areas. Permanent loss involves long-term impacts associated with permanent project features (e.g., new transmission towers and substations) that would remain throughout the life of the project.

These activities would cause some removal of existing vegetation and disturbance of surface soils. In addition, permanent loss of habitat would occur where new tower or pole foundations are installed, where substations and series capacitor banks are constructed, and where access and spur roads are constructed. Surface disturbance could occur during construction, operation, and maintenance of the Proposed Project especially when vehicles are driven over existing vegetation that has not been intentionally and regularly cleared to maintain utility access roads or firebreaks. Impacts would be related to movement of equipment and project personnel for monthly or annual project maintenance and during line-stringing/ cable pulling.

Each of these activities could cause temporary damage to existing vegetation, but would not likely involve removal or substantial disruption of surface soils. The most common type of surface disturbance is associated with rubber-tired or steel-tracked vehicles used to string/pull the line and transport personnel and materials along the project ROW. Potential impacts to plant communities could also be caused by the movement of construction/maintenance vehicles and equipment within the transmission line ROW. Impacts could include soil compaction and crushing of vegetation. Not all plant communities are equally sensitive to surface disturbance, not all of these impacts would occur in every plant community, and such disturbance would be limited to areas where other existing surface roads are not available.

Impacts to listed and sensitive wildlife and plant species, such as desert tortoise and bighorn sheep, may occur as a result of removal of habitat and direct mortality resulting from construction and operational activities. Examples of areas of sensitive biological resources in the Devers-Harquahala segment include Kofa National Wildlife Refuge, Copper Bottom Pass, Chuckwalla Valley Dune Thicket ACEC, and Alligator Rock ACEC. Mitigation measures identified in the Biological Resources analysis, such as preparation and implementation of a Habitat Restoration/Compensation Plan, pre-construction surveys, monitoring, and coordination of tower placement with USFWS/BLM, would reduce all impacts resulting from construction and operation of this segment to less than significant levels

West of Devers (230 kV Upgrade) Segment. Similar to the Devers-Harquahala segment, the West of Devers segment would potentially impact biological resources during construction and operation of the Proposed Project. Removal of existing 230 kV single-circuit transmission lines, construction of a new 230 kV double-circuit transmission line, upgrades of 230 kV transmission lines, and establishment of construction staging and laydown areas all have the potential to result in temporary impacts to sensitive vegetation communities and wildlife. The mitigation measures identified for the Devers-Harquahala segment would be applicable to the West of Devers segment, and would serve to reduce impacts to less than significant levels.

4.1.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala West Alternative. The SCE Harquahala-West Alternative would travel through the same types of habitat as the Harquahala to Kofa NWR segment of the Proposed Project. This alternative would consist of undisturbed desert upland and xeroriparian vegetation typical of the Creosote–White Bursage series with some fallow and alfalfa agricultural fields. A portion of the alternative would also follow a previously disturbed pipeline corridor and unpaved access road for 9 miles. Although the SCE Harquahala-West Alternative would result in a shorter transmission line (total distance of 216 miles instead of 230 miles) and fewer transmission towers (48 fewer 500 kV towers), a new access road would be required, resulting in about 5.28 acres of additional ground disturbance. Similar to the Proposed Project, this alternative could create significant impacts to biological resources during construction and operation. Mitigation measures, as described for the Devers-Harquahala segment, would be applicable to this alternative and would serve to reduce impacts to less than significant levels.

SCE Palo Verde Alternative. The SCE Palo Verde Alternative would travel through similar types of habitat as the Harquahala to Kofa NWR segment of the Proposed Project. This alternative would consist of generally undisturbed desert upland and xeroriparian vegetation typical of the Creosote–White Bursage series where it would follow existing transmission lines. Construction and operation of the SCE Palo Verde Alternative would create similar direct and indirect impacts as those for the Proposed Project, Harquahala to Kofa NWR segment. The SCE Palo Verde Alternative would result in a longer transmission line (total distance of 240 miles instead of 230 miles) that would require the construction of more transmission towers and would result in additional ground disturbance and a loss of native desert scrub habitat. Mitigation measures, as described for the Devers-Harquahala segment, would be applicable to this alternative and would serve to reduce impacts to less than significant levels.

Harquahala Junction Switchyard Alternative. The Harquahala Junction Switchyard Alternative site would be located within the Creosote–White Bursage habitat series and is primarily undisturbed. The proposed site contains typical species associated with the Desert scrub community, and several ephemeral washes are present in the area. Several special status plant and wildlife species have potential to occur on the Harquahala Junction Switchyard Alternative site and include several bats, reptiles, an invertebrate, and cacti and woody plants protected by the Arizona Native Plant Law. Additionally, migratory birds, burros, and bighorn sheep have potential to occur on the site. Construction and operation of the Harquahala Junction Switchyard Alternative would result in similar direct and indirect impacts as those described for the Proposed Project in the area. The Harquahala Junction Switchyard Alternative would result in a slightly shorter transmission line (total distance of 225 miles instead of 230 miles); however, a new switchyard would be constructed on up to 40 acres of land, which would create an additional impact of between 6 and 40 acres of undisturbed, native desert scrub habitat. Mitigation measures, as described for the Devers-Harquahala segment, would be applicable to this alternative and would serve to reduce impacts to less than significant levels.

Desert Southwest Transmission Project Alternative. In general, the vegetation communities across the Desert Southwest Transmission Project Alternative are the same as those described for the Proposed Project segments from Midpoint Substation to Cactus City Rest Area and from Cactus City Rest Area to Devers Substation. Between the Keim Substation and the Cactus City Rest Area, this alternative would cross through Sonoran creosote bush scrub and dry desert wash woodland. In addition, scattered desert dunes also occur. The areas where the route of this alternative differ from the Proposed Project would occur

where the construction of one double-circuit 500 kV line or two parallel 500 kV transmission lines would be built for 8.8 miles from Keim Substation to Midpoint Substation and where the three new substation/switching stations (Keim, Midpoint, and on Dillon Road) would be constructed. In addition, it also would differ where the transmission line runs south along the I-10 west of Alligator Rock, and where the line would cross to the north side of I-10, approximately 2.5 miles east of the Cactus City rest area. The alternative would continue west adjacent to the existing DPV1 transmission line. Near the Keim Substation, this alternative would cross disturbed areas, agricultural lands, and the I-10 freeway. South of the I-10, the route of this alternative would cross through patches of agricultural lands within the broader expanse of creosote bush scrub located west of Blythe. The alternative locations for the Midpoint Substation and the Dillon Road Substation are also vegetated with Sonoran creosote bush scrub. The vegetation in the area where this alternative would proceed north of Alligator Rock, along the south side of the I-10, and along the north side of I-10 (east of the Proposed Project crossing of the I-10), also consists of Sonoran creosote bush scrub and dry desert wash woodland. In general, the vegetation community in these portions of the alternative alignment exhibit somewhat of a sparser distribution of shrubs, a lower plant species diversity, a higher incidence of non-native plant species, and an increased level of human disturbance. Mitigation measures, as described for the Devers-Harquahala segment, would be applicable to this alternative and would serve to reduce impacts to less than significant levels.

Alligator Rock Alternatives. The regional setting for these alternatives would be the same as that described for the Proposed Project Cactus City Rest Area to Devers Substation. The Alligator Rock Alternatives would be 0.57 to 1.2 miles longer than the Proposed route, which would increase the length and intensity of short-term construction impacts and ground disturbance to native plant communities and wildlife. The Alligator Rock Alternatives each would establish a new transmission line corridor and specifically the Alligator Rock–North of Desert Center Alternative would require considerable upgrading and construction of new roads, as opposed to the Proposed Project, which would use existing access for construction and maintenance along the DPV1/DPV2 corridor. However, due to the higher level of human disturbance north of Alligator Rock and south of the I-10, the quality of the habitat that would be removed as a result of all of the Alligator Rock Alternatives would generally be poorer than the habitat along the alignment of the Proposed Project around Alligator Rock, which would be the farthest south of I-10. Mitigation measures, as described for the Devers-Harquahala segment, would be applicable to this alternative and would serve to reduce impacts to less than significant levels.

West of Devers Alternative

Devers-Valley No. 2 Alternative. In general, the vegetation communities across the length of the Devers-Valley No. 2 Alternative would be the same as some of the communities described for the Proposed Project segments from Devers to East Border of Banning, Banning and Beaumont, Calimesa to San Bernardino Junction, and San Bernardino Junction to Vista Substation. The route would traverse a small portion of the San Bernardino National Forest (SBNF) and the Santa Rosa and San Jacinto Mountains National Monument (National Monument). It would cross the Pacific Crest National Scenic Trail (PCT). The habitat, especially within the National Monument and National Forest, the numerous riparian areas, and in the Lakeview Mountains, is of higher quality due to its more undisturbed nature than in the area proposed for the West of Devers upgrades. The mountains within the Santa Rosa and San Jacinto Mountains National Monument and SBNF include highly valuable bighorn sheep habitat through which the new line would pass. Noise from helicopter construction would affect bighorn sheep if they were present. Mitigation measures, as described for the Devers-Harquahala segment, would be applicable to this alternative and would serve to reduce impacts to less than significant levels.

No Project Alternative

Under the No Project Alternative, ground disturbance activities would not occur, and a new transmission line would not be constructed. Impacts to the various habitats, special status species, and special management areas described for the Proposed Project would not occur. Components of the No Project Alternative would include the installation of distributed generation systems and new transmission infrastructure (e.g., power plants, transmission lines). Some of these could be in the existing DPV1 ROW, resulting in impacts to biological resources that are identical to the Proposed Project. If new transmission lines or power plants are constructed outside the existing ROW, they would result in areas of new ground disturbance that could have adverse effects on biological resources.

4.2 Visual Resources

4.2.1 Proposed Project

Devers-Harquahala 500 kV Segment. The eastern portion of the Proposed Project would involve the installation of a new transmission line adjacent to an existing, similar transmission line. Therefore, visual impacts are assessed in terms of the incremental visual change that would be created by the new transmission line. Project installation would result in the long-term visibility of prominent transmission structures and linear conductors, additional industrial character, and increased view blockage from many vantage points. Of the 14 key viewpoints that were established along this route segment, two would be exposed to significant unmitigable visual changes. These significant impacts would occur in Kofa National Wildlife Refuge and at Alligator Rock ACEC. Adverse but less than significant visual impacts are identified at the 12 other key viewpoints. In all cases mitigation measures are recommended to lessen the visual impacts, though the significant visual impacts would not be reduced to levels that would be less than significant. Mitigation measure address tower design (placement, height, and color), conductor spans (matching), lighting control, and facility screening. The Proposed Project would also cause short-term visual impacts associated with project construction including visibility of project construction equipment, materials, personnel, and construction staging areas. However, due to the relatively short duration of project construction, these impacts would constitute adverse but less than significant visual impacts. Since construction land scarring in arid and semi-arid landscapes has the potential to cause longer-tem visual impacts, mitigation measures have been proposed to ensure that such impacts remain short-term.

West of Devers (230 kV Upgrade) Segment. Because there are existing transmission lines within the western segment corridor, visual impacts from the new and reconductored transmission lines are assessed in terms of the incremental visual change that would be caused by the Proposed Project. Project installation would include the removal of some structures and the addition of others, resulting in the long-term visibility of prominent transmission structures and linear conductors. Depending on the viewpoint, the Proposed Project would result in either an increase or reduction in visual contrast, structural prominence, and view blockage. Of the 12 key viewpoints that were established along this route segment, eight would be exposed to adverse but less than significant visual impacts, while four other key viewpoints would experience beneficial visual impacts due to a reduction in visual contrast, structure complexity and prominence, or view blockage. In all cases mitigation measures are recommended to lessen (or further improve in the case of beneficial impacts) the visual effects of the Proposed Project. Project construction along this route segment would cause short-term visual impacts similar to those described in the previous section and would be subjected to the same mitigation measures summarized above.

4.2.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala West Alternative. Most of the SCE Harquahala West Alternative would pass through a landscape presently lacking similar electric transmission facilities. Project installation would result in the long-term visibility of prominent transmission structures and linear conductors with substantial industrial character, and view blockage of higher valued landscape features such as mountain ranges, the desert plain, and sky. As documented by the one key viewpoint established for this alternative, the transmission line would result in significant visual impacts that could not be mitigated to levels that would be less than significant. This alternative would also cause construction impacts similar to the Proposed Project described above and would be subject to the same mitigation measures.

SCE Palo Verde Alternative. Because the SCE Palo Verde Alternative would be constructed adjacent to two existing, similar transmission lines, impacts are assessed in terms of the incremental increase in visual effect that would be created by the alternative. Project installation would result in the long-term visibility of prominent transmission structures and linear conductors, additional industrial character, and view blockage of higher valued landscape features such as mountain ranges, the desert plain, and sky. As documented by the one key viewpoint established for this alternative, the transmission line would result in adverse but less than significant visual impacts. Mitigation measures are proposed to further lessen adverse visual impacts. This alternative would also cause construction impacts similar to the Proposed Project described above and would be subject to the same mitigation measures.

Harquahala Junction Switchyard Alternative. Unlike the proposed location for the switchyard, which is within an existing power plant west of Salome Highway, the Harquahala Switchyard Alternative would be located immediately adjacent and to the east of Salome Highway. As a result, the switchyard alternative would lack the more dominant industrial context of the power plant and would result in the long-term visibility of a prominent, structurally complex, and industrial-appearing facility, which would also cause view blockage of higher valued landscape features such as background hills and sky. This switchyard alternative would result in a significant visual impact that could be mitigated to a level that would be less than significant with effective vegetative screening along the east side of Salome Highway. This alternative would also cause construction impacts similar to the Proposed Project described above and would be subject to the same mitigation measures.

Desert Southwest Transmission Project Alternative. A majority of this alternative route would follow a route similar to the Proposed Project (see above for a discussion of those impacts and mitigation measures). Variations under this alternative include (a) a route segment between Keim Substation and a variant of Midpoint Substation, (b) a 9.5-mile route variant around Alligator Rock, and (c) a third substation adjacent to the existing DPV1 line west of Dillon Road near Indio. With the exception of the 9.5-mile route variant around Alligator Rock, which would result in significant unmitigable visual impacts, the remainder of this alternative would cause adverse but less than significant visual impacts. This alternative would also cause construction impacts similar to the Proposed Project described above and would be subject to the same mitigation measures.

Alligator Rock Alternatives. All of the Alligator Rock Alternatives would be located in close proximity to Alligator Rock and Interstate 10 (I-10) in the vicinity of Desert Center. All of the Alligator Rock alternatives would also have route alignments that would be independent of the existing 500 kV transmission line corridor located further to the south. In all cases, project installation would result in the long-term visibility of prominent transmission structures and linear conductors, additional industrial character, and view

blockage of higher valued landscape features such as mountain ranges, Alligator Rock, the desert plain, and sky. Views from I-10 would be particularly impacted, as would views from Kaiser Road and SR 177 for the Alligator Rock North of Desert Center Alternative. As documented by the three key viewpoints established for these alternatives, all of the Alligator Rock alternatives would result in significant, unmitigable visual impacts. Mitigation measures are proposed to lessen the visual impacts but they would not be reduced to levels that would be less than significant. These alternatives would also cause construction impacts similar to the Proposed Project described above and would be subject to the same mitigation measures.

West of Devers Alternative

Devers-Valley No. 2 Alternative. The Devers-Valley Alternative would involve the installation of a new transmission line adjacent to an existing, similar transmission line. Therefore, visual impacts are assessed in terms of the incremental increase in visual impact that would be created by the new line only. Project installation would result in the long-term visibility of prominent transmission structures and linear conductors, additional industrial character, and increased view blockage from many vantage points including residences, designated and eligible scenic highways, the Pacific Crest Trail, and local roads. Of the 4 key viewpoints that were established along this route segment, all four would be exposed to significant, unmitigable visual changes. In all cases mitigation measures are recommended to lessen the visual impacts, though the impacts would not be reduced to levels that would be less than significant. This alternative would also cause construction impacts similar to the Proposed Project described above and would be subject to the same mitigation measures.

No Project Alternative

The No Project Alternative would eliminate the significant and less than significant visual impacts that would result from the Proposed Project, as well as the beneficial impacts that would be experienced along some portions of the West of Devers route segment. However, the No Project Alternative may also result in the construction of other transmission lines and/or generation facilities that would have their own attendant visual impacts that may be greater or less than those of the Proposed Project.

4.3 Land Use

4.3.1 Proposed Project

Devers-Harquahala 500 kV Segment. The Devers-Harquahala segment would significantly impact landowners in Harquahala Valley, Palo Verde Valley, Desert Center, and in Riverside County areas north of the cities of Indio, Palm Desert, and Palm Springs. The segment would also traverse tribal lands owned by members of the Agua Caliente Band of Cahuilla Indians. The Devers-Harquahala segment would require construction across the Central Arizona Project (CAP) Canal, which may impact the canal during construction and/or operation. Mitigation measures identified in the Land Use analysis would reduce impacts resulting from construction and operation of this segment to less than significant levels. Mitigation would include the preparation of a construction notification plan to inform property and business owners of the location and duration of construction. SCE would also coordinate with the Agua Caliente Band of Cahuilla Indians and would ascertain the legal requirements for crossing tribal lands prior to construction. To mitigate potential impacts to the CAP Canal, SCE would be required to coordinate the canal crossing with the Central Arizona Water Conservation District and the BLM Phoenix Field Office. With implementation of these mitigation measures, land use impacts during construction and operation of the Proposed Project would be less than significant.

West of Devers (230 kV Upgrade) Segment. The West of Devers segment would significantly impact landowners, businesses, and public and community facilities (e.g., memorial parks, churches, schools) in the Cities of Banning, Beaumont, Calimesa, Loma Linda, Colton, and Grand Terrace, and in Riverside County areas east of the City of Banning and within San Timoteo Canyon. This segment would also impact tribal lands under the jurisdiction of the Morongo Band of Mission Indians. Mitigation measures identified in the Land Use analysis would reduce impacts resulting from construction and operation of this segment to less than significant levels. In addition to the construction notification plan described for the Devers-Harquahala segment, SCE would arrange the construction schedule with affected owners to ensure that business functions are not disrupted. To minimize impacts to public and community facilities, SCE would coordinate its construction schedule with the affected facilities that were identified in the analysis. With these mitigation measures, the land use impacts that would be attributed to the West of Devers segment would be less than significant.

4.3.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala-West Alternative. This alternative would create a ~~permanent preclusion of~~temporary disturbance to existing land uses in the Harquahala Valley area, resulting in significant impacts to residences. ~~As such, operational impacts associated with this alternative would be greater than those of the Proposed Project, and no~~Implementation of mitigation measures, however, ~~have been identified that~~ similar to those identified for the Devers-Harquahala segment of the Proposed Project and including avoidance of certain agricultural land would reduce impacts to a less than significant level.

SCE Palo Verde Alternative. This alternative would avoid rural residences that would be impacted by the Proposed Project, thereby creating ~~less than~~no significant impacts to existing land uses. No mitigation measures would be implemented for the alternative.

Harquahala Junction Switchyard Alternative. Similar to the SCE Palo Verde Alternative, the Harquahala Junction Switchyard Alternative would avoid rural residences that would be impacted by the Proposed Project. ~~Less than~~No significant impacts to existing land uses would occur, and no mitigation measures would be implemented.

Desert Southwest Transmission Project Alternative. This alternative would significantly impact residences in the Palo Verde Valley, Desert Center, and in Riverside County areas north of the Cities of Indio, Palm Desert, and Palm Springs. The segment would also traverse tribal lands owned by members of the Agua Caliente Band of Cahuilla Indians. With mitigation measures similar to those identified for the Devers-Harquahala segment of the Proposed Project, land use impacts attributed to construction and operation of the alternative would be reduced to a level that is less than significant.

Alligator Rock Alternatives. The Alligator Rock Alternatives would significantly impact residences and commercial uses in the Desert Center area of Riverside County. To mitigate impacts to a less than significant level, SCE would prepare a construction notification plan as described for the Devers-Harquahala segment of the Proposed Project.

West of Devers Alternative

Devers-Valley No. 2 Alternative. The alternative would significantly impact landowners, businesses, and public and community facilities (e.g., memorial parks, churches, schools) in the Cities of Banning

and Beaumont, and in Riverside County areas southeast of the City of Banning, and northwest and west of the City of San Jacinto. Mitigation measures described for the Devers-Harquahala segment of the Proposed Project would reduce impacts resulting from construction and operation of this alternative to less than significant levels. With these mitigation measures, the land use impacts that would be attributed to the Devers-Valley No. 2 Alternative would be less than significant.

No Project Alternative

Under the No Project Alternative, construction-related impacts would not occur to existing sensitive land uses such as rural and urban residential communities, schools, public visitor centers, cemeteries, and areas of important cultural and wilderness resources. Components of the No Project Alternative would include the installation of distributed generation systems and new transmission infrastructure (e.g., power plants, transmission lines). If new facilities are sited in developed areas, these facilities would likely create significant impacts to existing land uses similar to the Proposed Project.

4.4 Wilderness and Recreation

4.4.1 Proposed Project

Devers-Harquahala 500 kV Segment. The Devers-Harquahala segment would significantly impact recreational resources during construction and operation of the Proposed Project. Construction activities would temporarily reduce access and visitation, and the siting of transmission towers and access roads would potentially preclude recreation areas. Mitigation measures identified in the Wilderness and Recreation analysis would reduce impacts resulting from construction and operation of this segment to less than significant levels. Mitigation would include coordinating the construction schedule and activities with the authorized officer of the affected recreation areas. In addition, SCE would be required to coordinate tower and road locations with the aforementioned authorized officers.

The Devers-Harquahala segment would also create permanent impacts to the character of the following recreation or wilderness areas: Kofa National Wildlife Refuge, Chuckwalla Valley Dune Thicket ACEC, and Alligator Rock ACEC. Impacts to these resources would be significant and unmitigable.

West of Devers (230 kV Upgrade) Segment. Similar to the Devers-Harquahala segment, the West of Devers segment would significantly impact recreational resources during construction and operation of the Proposed Project. The mitigation measures identified for the Devers-Harquahala segment would be applicable to this segment, and would serve to reduce impacts to less than significant levels. No permanent impacts to the character of recreation or wilderness areas would be attributed to the West of Devers segment.

4.4.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala-West Alternative. Similar to the Proposed Project, the alternative would create significant impacts to recreational resources during construction. Coordination requirements with the authorized officer for the recreation areas, as described for the Devers-Harquahala segment, would be applicable to this alternative and would serve to reduce impacts to less than significant levels. No permanent impacts to the character of recreation or wilderness areas would be attributed to the SCE Harquahala-West Alternative.

SCE Palo Verde Alternative. This alternative would avoid traversing recreation or wilderness areas, and as such would not impact recreational resources. No mitigation measures would be implemented for the alternative.

Harquahala Junction Switchyard Alternative. This alternative would avoid traversing recreation or wilderness areas, and as such would not impact recreational resources. No mitigation measures would be implemented for the alternative.

Desert Southwest Transmission Project Alternative. Similar to the Proposed Project, this alternative would significantly impact recreational resources during construction and operation. The mitigation measures identified for the Proposed Project would be applicable to this alternative, and would serve to reduce impacts to less than significant levels. The Desert Southwest Transmission Project Alternative would also create permanent impacts to the character of the Chuckwalla Valley Dune Thicket and Alligator Rock ACECs. As described for the Devers-Harquahala segment, impacts to these resources would be significant and unmitigable.

Alligator Rock Alternatives.

The Alligator Rock–North of Desert Center Alternative would avoid traversing recreation or wilderness areas, and as such would not impact recreational resources. No mitigation measures would be implemented for the alternative.

The Alligator Rock–Blythe Energy Transmission Alternative and the South of I-10 Frontage Alternative would be similar to the Proposed Project by creating significant impacts to recreational resources during construction and operation. The mitigation measures identified for the Proposed Project would be applicable to these alternatives, and would serve to reduce impacts to less than significant levels. These alternatives would also create permanent impacts to the character of the Alligator Rock ACEC. As described for the Devers-Harquahala segment, impacts to this resource would be significant and unmitigable.

West of Devers Alternative

Devers-Valley No. 2 Alternative. Similar to the Proposed Project, the Devers-Valley No. 2 Alternative would significantly impact recreational resources during construction and operation. The mitigation measures identified for the Proposed Project would be applicable to this alternative, and would serve to reduce impacts to less than significant levels. The Devers-Valley No. 2 Alternative would also create permanent impacts to the character of the following recreation and wilderness areas: Santa Rosa and San Jacinto Mountains National Monument, PCT, SBNF, San Jacinto WA, and the Potrero ACEC. As described for the Devers-Harquahala segment, impacts to these resources would be significant and unmitigable.

No Project Alternative

Under the No Project Alternative, construction-related impacts would not occur to recreation or wilderness areas resulting from temporary or permanent preclusion of recreational resources. Components of the No Project Alternative would include the installation of distributed generation systems and new transmission infrastructure (e.g., power plants, transmission lines). If new facilities are sited in recreation areas, these facilities would likely create significant impacts to existing recreational resources similar to the Proposed Project.

4.5 Agriculture

4.5.1 Proposed Project

Devers-Harquahala 500 kV Segment. The Devers-Harquahala segment would significantly impact agricultural resources by contributing to a temporary conversion of Farmland to a non-agricultural use. Construction and operational activities would also interfere with agricultural operations. Mitigation measures identified in the Agriculture analysis would reduce impacts resulting from construction and operation of this segment to less than significant levels. Mitigation would include establishing an agreement and coordinating construction activities with agricultural landowners, and the preparation of a construction notification plan. In addition, SCE would locate transmission tower and pulling/splicing stations to avoid agricultural operations.

Operation of the Devers-Harquahala segment in the Harquahala Valley would also contribute to a permanent conversion of Farmland to a non-agricultural use. This impact would be significant and unmitigable.

West of Devers (230 kV Upgrade) Segment. Neither construction nor operation of the West of Devers segment would create significant impacts to agricultural resources. No mitigation measures would be implemented for this segment of the Proposed Project.

4.5.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala-West Alternative. Similar to the Proposed Project, the SCE Harquahala-West Alternative would significantly impact agricultural resources during construction and operation. The mitigation measures identified for the Devers-Harquahala segment would be applicable to this alternative, and would serve to reduce impact to less than significant levels. Operation of the SCE Harquahala-West Alternative would also contribute to a permanent conversion of Farmland in the Harquahala Valley, resulting in a significant and unmitigable impact.

SCE Palo Verde Alternative. Similar to the Proposed Project, the SCE Palo Verde Alternative would significantly impact agricultural resources during construction and operation. The mitigation measures identified for the Devers-Harquahala segment would be applicable to this alternative, and would serve to reduce impact to less than significant levels. Any permanent conversion of Farmland would not be significant under this alternative.

Harquahala Junction Switchyard Alternative. The Harquahala Junction Switchyard Alternative would not be constructed on Farmland. No impacts to agricultural resources would occur under this alternative.

Desert Southwest Transmission Project Alternative. Neither construction nor operation of this alternative would create significant impacts to agricultural resources. No mitigation measures would be implemented for the Desert Southwest Transmission Project Alternative.

Alligator Rock Alternatives. The Alligator Rock Alternatives would not be constructed on Farmland. No impacts to agricultural resources would occur under these alternatives.

West of Devers Alternative

Devers-Valley No. 2 Alternative. Neither construction nor operation of this alternative would create significant impacts to agricultural resources. No mitigation measures would be implemented for the Devers-Valley No. 2 Alternative.

No Project Alternative

Under the No Project Alternative, construction-related impacts would not occur to agricultural resources resulting from a temporary or permanent conversion of Farmland, or an interference with agricultural operations. Components of the No Project Alternative would include the installation of distributed generation systems and new transmission infrastructure (e.g., power plants, transmission lines). If new facilities are sited on Farmland, these facilities would likely create significant impacts to agriculture similar to the Proposed Project.

4.6 Cultural and Paleontological Resources

4.6.1 Proposed Project

Devers-Harquahala 500 kV Segment. The Devers-Harquahala segment would have adverse effects on historic properties (historical structures and prehistoric and historic archaeological sites that are eligible for listing on the National Register of Historic Places or the California Register of Historic Resources) and significant paleontological resources during construction and operation of the Proposed Project. Construction activities and access roads could directly impact archaeological sites and fossil localities, while the siting of permanent transmission towers and other facilities could adversely affect historic viewsheds or landscapes that contribute to the significance of historic sites. Mitigation measures identified in the Cultural and Paleontological Resources analysis would reduce adverse effects resulting from construction and operation of this segment, in most cases, to less than significant levels. Mitigation would include siting of project facilities and construction activities to avoid direct impacts to historic properties and fossil localities and personnel training and exclusionary barriers to protect resources during construction. Where significant paleontological resources cannot be protected from direct construction impacts, fossil recovery, analysis, and curation would be undertaken.

In cases where direct impacts to known historic properties cannot be avoided, or if buried historic properties are discovered during construction, adverse effects would be reduced by mitigation, but would be significant. Mitigation to reduce adverse effects to historic properties would be in accordance with a Treatment Plan approved by the BLM and the appropriate State Historic Preservation Officer, and would likely involve data recovery investigations, historical research, site documentation, and public interpretation.

Operational impacts to historic properties would be reduced to less than significant levels by site avoidance, personnel training, and a site monitoring program.

West of Devers (230 kV Upgrade) Segment. Within the West of Devers segment, all known historic properties can be protected from direct construction and operational impacts. Therefore, the Proposed Project will have no adverse effects to known historic properties. In this segment there is potential for direct impacts to significant paleontological resources and buried historic properties. For those resources, the mitigation measures identified for the Devers-Harquahala segment would be applicable to this segment.

4.6.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala West Alternative. There are no known historic properties within this alternative. However, there is potential for direct construction impacts to significant paleontological resources and buried historic properties. For those resources, the mitigation measures identified for the Devers-Harquahala segment would be applicable to this alternative.

SCE Palo Verde Alternative. Within this alternative, known historic properties would be protected from direct construction and operational impacts by careful siting of project facilities, roads, and other construction areas. Therefore, it is anticipated that these alternatives will have no adverse effects to known historic properties. In cases where known historic properties cannot be protected from direct construction and operational impacts, mitigation measures identified for the Devers-Harquahala segment would be implemented to reduce adverse effects.

In this alternative there is potential for direct impacts to significant paleontological resources and buried historic properties. For those resources, the mitigation measures identified for the Devers-Harquahala segment would be applicable to this segment.

Harquahala Junction Switchyard Alternative. There are no known historic properties within this alternative. However, there is potential for direct construction impacts to significant paleontological resources and buried historic properties. For those resources, the mitigation measures identified for the Devers-Harquahala segment would be applicable to this alternative.

Desert Southwest Transmission Project Alternative. Within this alternative, known historic properties would be protected from direct construction and operational impacts by careful siting of project facilities, roads, and other construction areas. Therefore, it is anticipated that this alternative will have no adverse effects to known historic properties. In cases where known historic properties cannot be protected from direct construction and operational impacts, mitigation measures identified for the Devers-Harquahala segment would be implemented to reduce adverse effects.

In this alternative there is potential for discovery and direct impacts to buried historic properties. For those resources, the mitigation measures identified for the Devers-Harquahala segment would be applicable to this segment. This alternative has low potential for significant paleontological resources and no impacts are anticipated.

Alligator Rock Alternatives. Within all three Alligator Rock alternatives, known historic properties would be protected from direct construction and operational impacts by careful siting of project facilities, roads, and other construction areas. Therefore, it is anticipated that this alternative will have no adverse effects to known historic properties. In cases where known historic properties cannot be protected from direct construction and operational impacts, mitigation measures identified for the Devers-Harquahala segment would be implemented to reduce adverse effects.

In all three Alligator Rock alternatives there is potential for discovery and direct impacts to buried historic properties. For those resources, the mitigation measures identified for the Devers-Harquahala segment would be applicable to this segment. These three alternatives have low potential for significant paleontological resources and no impacts are anticipated.

West of Devers Alternative

Devers-Valley No. 2 Alternative. Within this alternative, most of the known historic properties would be protected from direct construction and operational impacts by careful siting of project facilities, roads, and other construction areas. Therefore, it is anticipated that this alternative will have no adverse effects to known historic properties. In cases where known historic properties cannot be protected from direct construction and operational impacts, mitigation measures identified for the Devers-Harquahala segment would be implemented to reduce adverse effects.

In this alternative there is potential for direct impacts to significant paleontological resources and buried historic properties. For those resources, the mitigation measures identified for the Devers-Harquahala segment would be applicable to this segment.

No Project Alternative

Under the No Project Alternative, construction-related impacts resulting from ground-disturbing activities would not occur to cultural or paleontological resources. Components of the No Project Alternative would include the installation of distributed generation systems and new transmission infrastructure (e.g., power plants, transmission lines). New facilities would likely create significant impacts to cultural and paleontological resources similar to the Proposed Project.

4.7 Noise

4.7.1 Proposed Project

Devers-Harquahala 500 kV Segment. Construction would require short-term use of heavy equipment such as cranes, drill rigs, dozers, excavators, compressors, generators, and trucks. Helicopters would also be needed to transport construction materials and to string the conductors for the overhead line. Noise ordinances usually provide exemptions for construction activities occurring during normal daytime, weekday hours, but SCE may be forced to obtain approval from local jurisdictions where local noise ordinances fail to exempt construction activity especially if it would occur at night. There may be a need to work outside of the daytime, weekday hours to take advantage of low electrical draw periods at night hours or to cross major roads and highways. Mitigation including best management practices for noise suppression would reduce impacts of construction noise to less than significant levels.

Once operational, noise from the overhead transmission line would occur from corona discharge and minor inspection or maintenance activities. Inspection and maintenance along the overhead route would not change substantially when compared to the existing conditions. Audible noise from corona discharge along a 500 kV line can be well above background ambient noise levels, especially during wet weather. The corona noise impact would be significant for residences of unincorporated Riverside County within 200 feet of the ROW in the Palo Verde Valley, Thousand Palms, and North Palm Springs. There are few options for mitigating corona noise as it would be a function of conductor design and configuration, which is related to the power transmission needs and tower design and configuration. SCE hopes to relocate some homes, but if this proves problematic, the violation of the Riverside County noise policies during wet weather would create an infrequent but significant and unavoidable noise impact for homes within 200 feet of the 500 kV ROW.

West of Devers (230 kV Upgrade) Segment. Construction of the WOD upgrades would involve the short-term use of heavy equipment and helicopters in a manner similar to that expected for the 500 kV segment. Approximately 24 months of work would be necessary to build the WOD portion of the project,

with multiple crews at separate locations, at times causing construction noise at night. This would cause potentially significant noise impacts to many residences and other noise-sensitive land uses along the corridor; however, with mitigation, construction noise impacts would be less than significant. Corona noise levels along the 230 kV segment would decrease as a result of the Proposed Project because of the increased capacities of the new conductors and the reconfiguration of the towers within the corridor.

4.7.2 Alternatives

Alternatives within Devers-Harquahala Segment

The noise impacts for each alternative would vary depending on their proximity of noise-sensitive land uses. In general, all alternatives would cause similar noise impacts, which means that the mitigation measures for the Proposed Project would remain appropriate for the alternatives.

Harquahala West Alternative. The corridor of the Harquahala-West Alternative contains no noise-sensitive receptors. Given the lack of receptors, noise impacts would be less than significant.

Palo Verde Alternative. The Palo Verde Alternative would cause construction noise near one dwelling, about one-quarter mile from the corridor, south of Salome Highway (MP PV1). With mitigation, the noise impacts would be less than significant.

Harquahala Junction Switchyard Alternative. No noise-sensitive receptors are near the location of the proposed Harquahala Junction Switchyard. Given the lack of receptors, noise impacts would be less than significant.

Desert Southwest Transmission Project Alternative. The DSWTP Alternative would bring noise impacts to residences that would not be affected under the Proposed Project: an additional small community of residences near the proposed Keim Substation/Switching Station and a rural residence along Aztec Avenue in the Desert Center area of unincorporated Riverside County (south of I-10). With mitigation, the construction noise impacts would be less than significant. However, as with the Proposed Project, this alternative could occasionally cause excessive corona noise that would create unacceptable conditions according to Riverside County policies for any residences within about 200 feet. This would cause an infrequent, but significant and unavoidable, noise impact for homes near the proposed Keim Substation.

Alligator Rock Alternatives. The Alligator Rock Alternatives that would be south of I-10 would affect one rural residence near Desert Center that would not be otherwise affected by the Proposed Project. This is the same property that would be affected by the DSWTP Alternative. As with the Proposed Project the Alligator Rock Alternatives would cause construction noise and corona noise. With mitigation, the construction noise impacts would be less than significant. Corona noise levels would not violate local noise policies at the Desert Center residence because the home is located at a sufficient distance to be protected from corona noise.

West of Devers Alternative

Devers-Valley No. 2 Alternative. The Devers-Valley No. 2 Alternative would bring noise impacts to areas of Riverside County and the City of Banning that would not be affected under the Proposed Project. With mitigation, the construction noise impacts would be less than significant. However, this alternative would increase the corona noise levels in the corridor of the Devers-Valley No. 2 Alternative to levels that would cause potentially significant noise impacts during wet weather. This violation of Riverside County policies would result in an infrequent, but significant, noise impact for any home within 200 feet of the ROW of the Devers-Valley No. 2 Alternative that would remain unavoidable.

No Project Alternative

The No Project Alternative would avoid construction-related or operational noise changes, including permanent changes in audible corona noise. The continuation of ongoing demand-side and supply-side actions under the No Project Alternative could lead to installations of distributed generation (DG) or new power plants and transmission lines. These actions would result in possible localized noise impacts. However, local jurisdictions such as cities and counties, would need to conduct environmental reviews, and the sources would need to comply with local noise rules, standards, and/or ordinances. Substantial noise effects would occur for any noise-sensitive uses near possible power plants, and new transmission facilities could cause substantial corona noise.

4.8 Transportation & Traffic

4.8.1 Proposed Project

Devers-Harquahala 500 kV Segment. The majority of transportation and traffic related impacts would occur during the construction phase of the project. Operational impacts include a negligible increase of traffic on project area roads and minor aviation safety issues. The majority of construction impacts would occur during transmission line stringing activities over roads, including I-10. Construction could require temporary road closures during stringing, which would potentially impact general traffic, emergency service providers, bus services, and pedestrian and bicycle movements. However, encroachment permits from each applicable transportation agency would need to be secured by the Applicant before a roadway could be temporarily blocked. Encroachment permits would require that the Applicant implement safety and traffic control measures. Impacts associated with temporary road closures would be less than significant. Construction activities could also temporarily block railroad operations and affect aviation safety; both of which would result in less than significant impacts. One potentially significant impact is identified related to the potential for construction equipment to physically damage roads in the project area. However, a mitigation measure is recommended that would reduce road damage impacts to less than significant levels.

West of Devers (230 kV Upgrade) Segment. The same impacts that would occur for the Devers-Harquahala segment would for under the West of Devers Segment. In addition, for the West of Devers segment, the proposed project would result short-term elimination of parking spaces. This impact is considered less than significant with implementation of a mitigation measure that would require coordination with the parking lot owner.

4.8.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala West Alternative. Construction could require temporary road closures during stringing, which would potentially impact general traffic levels and emergency service providers, bus services, and pedestrian and bicycle movements. There would be no aviation safety concerns for this alternative. All other impacts would be general the same as those described above for the Devers-Harquahala segment of the Proposed Project.

SCE Palo Verde Alternative. The types of impacts that would be associated with the SCE Palo Verde Alternative would be essentially the same as that described above for the SCE Harquahala West Alternative.

Harquahala Junction Switchyard Alternative. Under the Harquahala Junction Switchyard Alternative, there would be no potential for project construction activities to block roadways or to affect aviation safety. All other impacts would be general the same as those described above for the Devers-Harquahala segment of the Proposed Project.

Desert Southwest Transmission Project Alternative. The types of impacts that would be associated with the Desert Southwest Transmission Project Alternative would be essentially the same as that described above for the Devers-Harquahala segment of the Proposed Project. However, this alternative would not result in a potential disruption to rail operations.

Alligator Rock Alternatives. The types of impacts that would be associated with the Alligator Rock Alternatives would be essentially the same as that described above for the Desert Southwest Transmission Project Alternative. However, the Alligator Rock–North of Desert Center Alternative would not result in any impacts to pedestrian and/or bicycle movements.

West of Devers Alternative

Devers-Valley No. 2 Alternative. The types of impacts that would be associated with the Devers-Valley No. 2 Alternative would be essentially the same as that described above for the Devers-Harquahala segment of the Proposed Project. However, this alternative would not result in any aviation safety impacts.

No Project Alternative

Under the No Project Alternative, the proposed DPV2 project would not be constructed, so the impacts associated with construction and operation of the project would not occur. The first component of the No Project Alternative is the continuation of ongoing demand-side actions, including energy conservation and distributed generation. These actions would result in limited or no impacts to transportation and traffic. The second component of the No Project Alternative is the continuation of supply-side actions, resulting in potentially increased generation within California or increased transmission into California to serve anticipated growth in electricity consumption. The impacts of new power plants and new transmission lines to transportation and traffic would be approximately the same, depending on the locations of the projects, as those that would occur under the Proposed Project.

4.9 Public Health & Safety

4.9.1 Proposed Project

Devers-Harquahala 500 kV Segment. Construction activities associated with the Proposed Project along the Devers-Harquahala 500 kV Segment could result in soil contamination from improper handling and spills, encountering residual pesticides and other unknown pre-existing contamination. In addition soil contamination could result from accidental spill or release of hazardous materials during operations and maintenance. With mitigation, contamination encountered during construction or resulting from an accidental spill or release would be properly removed and transported; all impacts would be less than significant.

West of Devers (230 kV Upgrade) Segment. The same impacts that would occur for the proposed Devers-Harquahala segment would occur under the West of Devers Segment. With mitigation, contamination encountered during construction or resulting from an accidental spill or release would be properly removed and transported; all impacts would be less than significant.

4.9.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala West Alternative. The Harquahala-West Alternative traverses agricultural land west of the Harquahala Switchyard, then crosses undeveloped open space to the existing El Paso Natural Gas pipeline utility corridor, resulting in a very low potential for environmental contamination that is typically associated with commercial and industrial land use activities. However, it does have a potential for contamination related to residual pesticides and herbicides. Based on the environmental database review, there are no known hazardous release sites along this alternative route segment. Therefore, few impacts are expected, and if unanticipated sites are discovered or soil contamination results from an accidental spill or release of hazardous materials, mitigation would ensure that impacts are less than significant.

SCE Palo Verde Alternative. The SCE Palo Verde Alternative route has a very low potential to encounter environmental contamination associated with commercial, industrial, or agricultural land use activities because it traverses undeveloped open space within an existing transmission line corridor and there are no known hazardous release sites within this alternative route segment. However, there is some potential for soil contamination within the PVNGS Switchyard and if unanticipated sites are discovered or soil contamination results from an accidental spill or release of hazardous materials, mitigation would ensure that impacts are less than significant.

Harquahala Junction Switchyard Alternative. This alternative would be constructed on an approximately 40-acre undeveloped site with no known hazardous release sites in the immediate vicinity. This alternative has no potential to encounter environmental contamination; however, if unanticipated sites are discovered or soil contamination results from an accidental spill or release of hazardous materials, mitigation would ensure that impacts are less than significant.

Desert Southwest Transmission Project Alternative. In general the DSWTP Alternative would have a very low potential to encounter environmental contamination typically associated with commercial and industrial land use activities. Based on the limited environmental database review, there are no known hazardous release sites within the proposed alternative. Therefore, few impacts are expected, and if unanticipated sites are discovered or soil contamination results from an accidental spill or release of hazardous materials, mitigation would ensure that impacts are less than significant.

Alligator Rock Alternatives. These alternatives have a very low potential to encounter environmental contamination associated with commercial, industrial, or agricultural land use activities. Based on the review of online environmental databases, there are no known hazardous release sites along these alternative route segments. Therefore, few impacts are expected, and if unanticipated sites are discovered or soil contamination results from an accidental spill or release of hazardous materials, mitigation would ensure that impacts are less than significant.

West of Devers Alternative

Devers-Valley No. 2 Alternative. The Devers-Valley Alternative traverses primarily undeveloped open space and a small amount of agricultural land uses within an existing 500 kV transmission line corridor. Between MPs DV27 and DV28 the alternative route passes between 500 to 1,000 feet north and west of the Riverside County Landfill, an active municipal waste landfill. Overall, the alternative route has a very low potential to encounter environmental contamination typically associated with commercial and industrial

land use activities. Based on the limited environmental database review, there are no known hazardous release sites within or adjacent to this alternative route and few impacts are expected. If unanticipated sites are discovered or soil contamination results from an accidental spill or release of hazardous materials, mitigation would ensure that impacts are less than significant.

No Project Alternative

Under the No Project Alternative, the proposed DPV2 project would not be constructed, so the impacts associated with construction and operation of the project would not occur. The first component of the No Project Alternative is the continuation of ongoing demand-side actions, including energy conservation and distributed generation. These actions would result in limited or no impacts related to environmental contamination. The second component of the No Project Alternative is the continuation of supply-side actions, resulting in potentially increased generation within California or increased transmission into California to serve anticipated growth in electricity consumption. The impacts of new power plants and new transmission related to environmental contamination would be approximately the same, depending on the locations of the projects, as those that would occur under the Proposed Project.

4.10 Air Quality

4.10.1 Proposed Project

Devers-Harquahala 500 kV Segment. The project would generate localized pollutant emissions from the construction equipment over the entire construction duration. Over the long-term, the project would affect power plant emissions in California and Arizona, and minimal vehicular emissions associated with maintenance and repair of the transmission line would also occur.

Dust and equipment exhaust emissions would be caused by all construction activities especially where heavy amounts of travel would occur on unpaved roads and surfaces that would create fugitive dust. Use of construction equipment and emissions from motor vehicles would also adversely affect air quality because construction activities would emit pollutants that could contribute to existing violations of ambient air quality standards. The severity of impacts due to construction emissions depends on the local air quality and the regulatory requirements of each different local air quality management jurisdiction.

The construction emissions would cause an impact characterized as less than significant in the jurisdiction of the Maricopa County Air Quality Division (MCAQD), but because of relatively less stringent regulations elsewhere in Arizona, mitigation would be required in the La Paz County portion of the Arizona Department of Environmental Quality (ADEQ) to reduce construction impacts to a less than significant level. In California, additional mitigation would be required to reduce construction impacts to a less than significant level in the Mojave Desert Air Quality Management District (MDAQMD). In the South Coast Air Quality Management District (SCAQMD), where most construction activity would occur, mitigation would be required, but construction impacts would remain significant and unavoidable. Mitigation would also require that NOx emissions be offset during years that project emissions are forecast to exceed the General Conformity *de minimis* threshold in the South Coast Air Basin (SCAB).

The CAISO forecasts that with DPV2 operational, power plant emissions in California would decrease, and emissions from power plants in Arizona and other western states would increase. The precise location and quantity of the forecasted emissions reductions would change over time depending on the ultimate customers of power flowing from DPV2, but the decrease in California power plant emissions is consid-

ered to be a beneficial impact of the Proposed Project. Because less efficient facilities in California would be used less, the decrease in California power plant emissions would be large compared to the increase in emissions in Arizona. This impact in Arizona would be less than significant.

West of Devers (230 kV Upgrade) Segment. The entirety of proposed WOD upgrades would occur within the jurisdiction of the SCAQMD, where construction impacts would be significant and unavoidable. Mitigation would require that NOx emissions be offset during years that project emissions are forecast to exceed the SCAB General Conformity *de minimis* threshold.

4.10.2 Alternatives

The air quality impacts for each alternative would vary depending on the intensity of construction activities. In general, all alternatives would cause similar air quality impacts, which means that the mitigation measures for the Proposed Project would remain appropriate for the alternatives.

Alternatives within Devers-Harquahala Segment

Harquahala West Alternative. The Harquahala West Alternative would cause more emissions in the ADEQ and fewer emissions in the MCAQD when compared to the construction emissions of the Proposed Project. The impact would be classified as less than significant in MCAQD, but as with the Proposed Project, mitigation would be required in the ADEQ to reduce this impact to a less than significant level.

Palo Verde Alternative. The Palo Verde alternative would not cause any notably different impacts within the MCAQD when compared to the Proposed Project, and the impact would remain less than significant.

Harquahala Junction Switchyard Alternative. This alternative would cause a slight decrease in the Proposed Project's construction emissions within MCAQD jurisdiction, and the impact would remain less than significant.

Desert Southwest Transmission Project Alternative. Air quality impacts from construction emissions would be less than significant with the mitigation implemented in MDAQMD, but for activities within the SCAQMD, the impacts would be significant and unavoidable.

Alligator Rock Alternatives. Each of the Alligator Rock Alternatives would occur in the Mojave Desert portion of the SCAQMD. The alternatives would cause slight emission increases when compared to the Proposed Project, and because the alternatives would occur in the SCAQMD, the impact would be significant and unavoidable

West of Devers Alternative

Devers-Valley No. 2 Alternative. The Devers-Valley No. ~~3~~ 2 Alternative would result in greater levels of daily NOx and CO construction emissions within the SCAB compared to the Proposed Project. However, because it would involve a reduced overall amount of construction and less demolition activity, this alternative causes less annual emissions in SCAB and SSAB. Although this alternative would avoid exceeding the General Conformity *de minimis* threshold for annual NOx emissions, local SCAQMD thresholds would be exceeded, and the construction impact would be significant and unavoidable.

No Project Alternative

The No Project Alternative would avoid construction-related project emissions and the project-related changes in regional emissions from power plants. The continuation of ongoing demand-side and supply-side actions under the No Project Alternative would avoid the dust and exhaust emissions caused by project construction activities and the changes in emissions from power plants that could be caused by operation of DPV2. The forecast net decrease in emissions from power plants in California and the smaller increase in emissions from power plants in Arizona (described in Impact AQ-3) would not occur with implementation of No Project Alternative. Although construction and operation of new power plants and transmission lines may occur under the No Project Alternative, their locations and development schedules cannot be predicted. The impacts of new power plants and new transmission lines under the No Project Alternative could add air pollutants contributing to existing nonattainment conditions or violations of ambient air quality standards, if they occur in areas of substantial existing pollution.

4.11 Water Resources

4.11.1 Proposed Project

Devers-Harquahala 500 kV Segment. There would be over 85 water crossings in this segment of the Proposed Project, all of which would be either typical desert/desert valley washes, alluvial fan washes, or irrigation canals, with the exception of the Colorado River at the California-Arizona border, which is the only natural river or stream east of the Devers Substation with permanent flow. Construction activity could degrade water quality due to erosion and sedimentation or through a spill of potentially harmful materials used in construction. All impacts would be reduced to less than significant levels through the implementation of mitigation measures.

West of Devers (230 kV Upgrade) Segment. The climate of the project area west of Devers Substation results in more rainfall compared to east of the Devers Substation, and natural watercourses are more likely to have flowing water. Most of the almost 40 watercourses in the West of Devers segments originate in the San Bernardino Mountains and can be fed by snowmelt in the winter. Construction activity could degrade water quality due to erosion and sedimentation or through a spill of potentially harmful materials used in construction. Groundwater quality degradation would not likely occur along these segments because groundwater in the area is very deep. All impacts would be reduced to less than significant levels through the implementation of mitigation measures.

4.11.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala West Alternative. The Harquahala-West Alternative would be similar to, but shorter than, the Proposed Project, with fewer water crossings, resulting in a lesser potential for impacts. Mitigation measures similar to those for the Proposed Project would reduce all impacts to less than significant levels.

SCE Palo Verde Alternative. This alternative would have similar impacts like the proposed route, but the SCE Palo Verde Alternative would be 14.7 miles longer with at least four additional water crossings. Mitigation measures similar to those for the Proposed Project would reduce all impacts to less than significant levels.

Harquahala Junction Switchyard Alternative. The Harquahala Junction Switchyard Alternative would be located in a similar setting and would have one fewer water crossing than the Proposed Project, but this alternative would include a new switchyard, which has the potential for increased construction area and water quality and flow diversion impacts during operation. Regardless, mitigation measures similar to those for the Proposed Project would reduce all impacts to less than significant levels.

Desert Southwest Transmission Project Alternative. This alternative would be similar to the Proposed Project, except it would follow the Alligator Rock–South of I-10 Frontage Alternative in the Alligator Rock ACEC area where there would be one fewer watercourse crossing due to the proximity of I-10. Therefore, impacts would be similar to those identified for the proposed Devers-Harquahala route from Blythe to Devers Substation and the same associated mitigation measures would reduce impacts to less than significant levels. Construction of the new Keim and Dillon Road Substations under this alternative would have the potential for increased construction area and water quality and flow diversion impacts during operation, however, with mitigation impacts would be less than significant.

Alligator Rock Alternatives. Impacts for the Alligator Rock Alternatives would generally be similar to those for the Proposed Project because they would occur in the same watersheds and would affect largely the same water crossings. All of the alternative would be downstream of the Proposed Project and therefore, flows, which originate at the alluvial fan apex, would have more opportunity to attenuate. The Alligator Rock–North of Desert Center Alternative would be north of I-10 and the lowest route on the alluvial fan. In addition, the freeway tends to block and concentrate flow into fewer flow paths that would exist in a natural condition. Being further downstream on the alluvial fan, there is less chance of small flows reaching the power line. Mitigation measures similar to those for the Proposed Project would reduce all impacts to less than significant levels.

West of Devers Alternative

Devers-Valley No. 2 Alternative. This alternative would cross 22 natural watercourses, including several crossings of the San Gorgonio River in locations where the river is in a braided condition with potential for flow to follow several channel paths. In addition, several of the alternative towers would be in or very near active watercourses and a portion of this route would be constructed on Forest Service land in very steep terrain where construction and operation-related erosion would be a concern. However, with the incorporation of mitigation measures, all impacts would be less than significant.

No Project Alternative

Under the No Project Alternative, the proposed DPV2 project would not be constructed, so the impacts associated with construction and operation of the project would not occur. The first component of the No Project Alternative is the continuation of ongoing demand-side actions, including energy conservation and distributed generation. These actions would result in limited or no impacts related to hydrology and water resources. The second component of the No Project Alternative is the continuation of supply-side actions, resulting in potentially increased generation within California or increased transmission into California to serve anticipated growth in electricity consumption. The impacts of new power plants and new transmission to hydrology and water resources would be approximately the same, depending on the locations of the projects, as those that would occur under the Proposed Project.

4.12 Geology, Mineral Resources, and Soils

4.12.1 Proposed Project

Devers-Harquahala 500 kV Segment. This segment of the proposed route would roughly parallel the San Andreas Fault in its western portion, crossing in two places an active fault strand of the San Andreas Fault Zone. In the event of an earthquake along the San Andreas Fault adjacent to the project, the portion of the segment west of Cactus City Rest Area would be subject to strong to extreme groundshaking. Further, large earthquakes may trigger surface fault rupture, causing damage to and potential failure of transmission towers near fault crossings. Impacts associated with active fault crossings can be mitigated to less than significant levels because tower design compensates for transmission line displacement. Recommended mitigation requires further tower design and construction studies at high-risk tower locations.

Construction activities could cause the following impacts: accelerated erosion, slope instability, inaccessibility of known mineral resources, loose soils destabilizing tower foundations, and soil corrosive to construction materials. Other geologic hazards that could affect the project include strong to severe groundshaking, slope instability, and seismically induced ground failure. Mitigation to reduce these impacts to less than significant levels would be accomplished through geotechnical studies to define the best design to protect against such hazards, coordination with existing quarry operations, implementing standard engineering methods for problematic and corrosive soils.

West of Devers (230 kV Upgrade) Segment. This segment of the proposed route would run near a number of significant active fault segments, crossing four faults in the San Andreas and San Jacinto Fault Zones capable of significant surface rupture. Surface fault rupture near transmission towers may damage them and cause transmission failure. Impacts and the associated mitigation to reduce these impacts to less than significant levels would be similar to the Devers-Harquahala segment.

4.12.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala-West Alternative. This alternative would cross the Harquahala Plain and the northeastern edge of the Eagletail Mountains. The only expected construction impact would be accelerated erosion, but the impact would be less than significant with mitigation. The only expected geologic hazard would be highly corrosive soils, but implementation of the same mitigation measures identified for the Proposed Project would reduce impacts to less than significant levels.

SCE Palo Verde Alternative. This alternative would pass between Saddle Mountain and the Palo Verde Hills. The same impacts identified for the Proposed Project and the SCE Harquahala-West Alternative would apply to this route and the same mitigation measures would reduce impacts to less than significant levels.

Harquahala Junction Switchyard Alternative. This alternative switchyard site would be located directly east of the existing Harquahala Generating Station switchyard in undeveloped open space. The same impacts identified for the Proposed Project and SCE Harquahala-West Alternative would apply to this route and the same mitigation measures would reduce impacts to less than significant levels.

Desert Southwest Transmission Project Alternative. This alternative would be similar to the Proposed Project, except it would follow the Alligator Rock–South of I-10 Frontage Alternative in the Alligator Rock

ACEC area. Therefore, it would be subject to the similar geologic impacts identified for the proposed Devers-Harquahala route from Blythe to Devers Substation and the same mitigation measures would reduce impacts to less than significant levels.

Alligator Rock Alternatives. The Alligator Rock Alternatives are in close proximity to the proposed route, and therefore, impacts and associated mitigation would be similar to the Proposed Project. All impacts would be less than significant.

West of Devers Alternative

Devers-Valley No. 2 Alternative. This alternative begins at Devers Substation in the eastern end of the Coachella Valley and runs 41.6 miles, crossing the San Jacinto Valley, to Valley Substation. The western end crosses segments of the San Jacinto Fault Zone in several places. Geologic hazards and construction impacts would be similar to those identified for the West of Devers segment of the proposed route, making the same mitigation measures appropriate to reduce impacts to less than significant levels.

No Project Alternative

Under the No Project Alternative, the proposed DPV2 project would not be constructed, so the impacts associated with construction and operation of the project would not occur. The first component of the No Project Alternative is the continuation of ongoing demand-side actions, including energy conservation and distributed generation. These actions would result in limited or no impacts related to geology, minerals resources, or soils. The second component of the No Project Alternative is the continuation of supply-side actions, resulting in potentially increased generation within California or increased transmission into California to serve anticipated growth in electricity consumption. The impacts of new power plants and new transmission to geology, mineral resources, and soils would be approximately the same, depending on the locations of the projects, as those that would occur under the Proposed Project.

4.13 Socioeconomics

4.13.1 Proposed Project

Devers-Harquahala 500 kV Segment. The socioeconomics analysis addresses whether the Proposed Project would adversely affect labor, housing, public services, and utility systems, as well as economic conditions along the project route. While the Proposed Project would require up to 211 personnel for construction of the Devers-Harquahala 500 kV Segment, the labor force along the project route would be sufficient to meet the labor demands of the project. It is not expected that new personnel would be required to permanently relocate for the project. Consequently, there would not be increased demand for housing or public services as a result of this segment of the project. Construction activities would have the potential to disrupt utilities in some areas, but could largely be avoided with proper location and identification of utility lines. Construction activities would also place demands on local utilities, such as water suppliers and waste facilities, but these demands would be relatively insignificant compared to the total capacity of facilities along the project route. Due to the Proposed Project's route largely through undeveloped lands along the Devers-Harquahala 500 kV Segment, the economic effects on the environment along the route would be limited. Although there is evidence that transmission lines have affected property values in some cases, the effects are generally smaller than anticipated and with the Proposed Project, there is not enough data to conclusively state the project's effect on property values. The Proposed Project could, however, potentially provide revenue for the Agua Caliente Band of Cahuilla Indians as the route crosses land under the jurisdiction of the Tribe.

West of Devers (230 kV Upgrade) Segment. Impacts along the West of Devers (230 kV Upgrade) Segment would be largely the same as for the Devers-Harquahala 500 kV Segment. This segment would require a maximum of 174 personnel for construction activities, all of which are expected to be drawn from the local labor force, so no new demands on housing or public services would be made by the Proposed Project in this segment. Construction activities could disrupt utilities, but this could be avoided through the location and identification of utilities along the construction route. Water supply demands along this segment would be similar to the Devers-Harquahala 500 kV Segment and would be insignificant relative to the area's water supply. The removal of transmission towers in this segment, however, would generate 750 tons of tower steel, 2,050 tons of conductor, and 33,660 feet of treated wood poles. Although it is expected that local landfills could accommodate this waste, to comply with the Integrated Waste Management Act of 1989, a mitigation measure was developed to ensure that a minimum of 50 percent of the waste generated would be recycled. As described for the Devers-Harquahala 500 kV Segment, not enough data is available to conclusively state the effects of the Proposed Project on property values. As with the Devers-Harquahala 500 kV Segment traversing lands under the jurisdiction of the Agua Caliente Band of Cahuilla Indians, the West of Devers Segment would traverse Morongo Band of Mission Indians land. SCE would be required to lease ROW land under the jurisdiction of the Morongo Band of Mission Indians for construction of this segment, which would provide revenue to the Morongo Band.

4.13.2 Alternatives

Alternatives within Devers-Harquahala Segment

SCE Harquahala West Alternative. Although the SCE Harquahala-West Alternative would be shorter than the equivalent segment of the Proposed Project, would use less water, and generate less waste, but not by a substantial amount. The socioeconomic impacts associated with this Alternative would be the same as described for the Proposed Project.

SCE Palo Verde Alternative. The SCE Palo Verde Alternative would be longer than the Proposed Project and consequently would require more water and generate more waste than the Proposed Project. As these increases would not be substantially greater, however, the impacts associated with the SCE Palo Verde Alternative would be the same as described for the Proposed Project.

Harquahala Junction Switchyard Alternative. Construction of the Harquahala Junction Switchyard alternative would require slightly more water than the Proposed Project, but socioeconomic impacts associated with this Alternative would be the same as described for the Proposed Project.

Desert Southwest Transmission Project Alternative. Although the Desert Southwest Transmission Project Alternative would follow a slightly different alignment than the Proposed Project, it would require the same labor force and have the same demands on utilities. Socioeconomic impacts of this Alternative would be the same as for the Proposed Project.

Alligator Rock Alternatives. The Alligator Rock Alternatives would each vary in their route and length, but all would be comparable to the equivalent segment of the Proposed Project. Consequently, the socioeconomic impacts of these Alternatives would be the same as for the Proposed Project.

West of Devers Alternative

Devers-Valley No. 2 Alternative. The Devers-Valley No. 2 Alternative would be similar in length to the West of Devers Segment of the Proposed Project, and so would have similar demands on water supplies. As this route would be outside the existing West of Devers corridor, it would not require the removal

of transmission towers and it would avoid traversing Morongo Indian Band land. As a result, this alternative would not generate the large quantities of waste generated in the West of Devers Segment and so would not require mitigation to recycle up to 50 percent of the waste generated. By following a different route, this alternative would not require SCE to lease ROW land from the Morongo Indian Band, thus removing a source of revenue for the Morongo Indian Band. Other effects of this Alternative, however, would be the same as described for the Proposed Project.

No Project Alternative

Under the No Project Alternative, no construction of the transmission line or associated facilities would occur, so there would be no impacts to labor, housing, service systems, or utilities. Other methods of ensuring energy supply would be required, however, and demand side actions such as energy conservation and distributed generation could adversely effect businesses as they try to shift activities to meet conservation goals or purchase distributed generation technology. Increases in power generation in California would also be required which would require the upgrade of existing power facilities or the construction of new facilities. Construction of these facilities would result in adverse impacts to water supplies and waste facilities and would potentially result in utility disruptions due to collocation accidents. Labor forces used in the construction of these projects would likely be drawn from the surrounding areas, so effects on workforces or housing be minimal. Operation of new power plants and transmission lines could provide beneficial economic impacts through the provision of taxes and jobs to local economies.

ES.5 Summary Comparison of the Proposed Project and Alternatives

This section summarizes and compares the environmental advantages and disadvantages of the Proposed Project and the alternatives evaluated in this EIR/EIS. This comparison is based on the assessment of environmental impacts of the Proposed Project and each alternative, as identified in Sections D.2 through D.14. Section 5.1 describes the methodology used for comparing alternatives. Section 5.2 defines the environmentally superior/preferred[6] alternative, based on comparison of each alternative with the Proposed Project. Section 5.3 presents a comparison of the No Project/Action Alternative with the alternative that is determined in Section 5.2 to be environmentally superior/preferred.

CEQA Guidelines require that an EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. The Guidelines also state that if an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. If the environmentally superior alternative is the No Project Alternative, CEQA requires identification of an environmentally superior alternative among the other alternatives [CEQA Guidelines Section 15126.6(e)(2)].

Under NEPA the Draft EIR/EIS should identify the environmentally preferable alternative from a range of alternatives considered if one exists at the draft stage. Commenters from other agencies and the public are also encouraged to address this question. In addition, the BLM NEPA Handbook (H-1790-1, Chapter 5.B.2.b) requires identification of an agency preferred alternative.

---

[6] Under CEQA, an “environmentally superior alternative” is designated, and under NEPA an “environmentally preferred” alternative is designated.

5.1 Methodology for Alternatives Comparison

The following methodology was used to compare alternatives in this EIR/EIS:

- **Step 1: Identification of Alternatives.** An alternatives screening process was used to identify a number of alternatives to the Proposed Project.
- **Step 2: Determination of Environmental Impacts.** The environmental impacts of the proposed and the alternative route segments were identified in Sections D.2 through D.14, including the potential impacts of transmission line and substation construction and operation.
- **Step 3: Comparison of Proposed Project with Alternatives.** The environmental impacts of the Proposed Project were compared to those of each alternative to determine the environmentally superior alternative. The environmentally superior alternative was then compared to the No Project Alternative.

Determining an environmentally superior/preferred alternative requires balancing many environmental factors. In order to identify the environmentally superior alternative, the most important impacts in each issue area were identified and compared. Although this EIR/EIS identifies an environmentally superior/preferred alternative, it is possible that the ultimate decision-makers could balance the importance of each impact area differently and reach a different conclusion.

5.2 Environmentally Superior/Preferred Alternative

5.2.1 Transmission Line Route Alternatives: Devers-Harquahala Segment

The Devers-Harquahala segment of the project is the 500 kV portion. Along this segment, the Proposed Project was designed to follow an established utility corridor. Use of the established corridor and existing access roads would minimize the duration and intensity of construction-related impacts. The following discussions compare the alternatives with the Proposed Project in three areas of the 500 kV portion where alternatives were analyzed:

- The area near the Palo Verde Nuclear Generating Station (PVNGS)
- The area around Alligator Rock
- The area between Blythe and Devers Substation (where the Desert Southwest Transmission Project would be constructed)

Proposed Project vs. Alternatives Near Palo Verde Nuclear Generating Station

The **Proposed Project** in the segment between Harquahala Generating Station and the Kofa National Wildlife Refuge would have three significant and unavoidable impacts:

- **Agriculture:** Operation would permanently convert Farmland to non-agricultural use
- **Cultural Resources:** Construction of the project would cause an adverse change to known historic properties
- **Cultural Resources:** Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains.

The **SCE Palo Verde Alternative** would eliminate the need for construction of 5.0 miles of the Proposed Project, but would add the required construction of 14.7 miles (from Harquahala Junction to the PVNGS). This alternative would have the same cultural resources impacts as the Proposed Project. Because the SCE Palo Verde Alternative would not affect farmland, this alternative would not result in a significant impact from conversion of farmland.

The **SCE Harquahala-West Alternative** would eliminate the need for construction of 35.0 miles of the Proposed Project (all adjacent to existing 500 kV lines) but would require construction of 21.0 miles of new 500 kV line entirely in a new transmission corridor. This alternative would have the same cultural resources impacts as the Proposed Project. The SCE Harquahala-West Alternative would result in a significant impact to agriculture as the result of conversion of Farmland, similar to the Proposed Project. In addition, it would have significant impacts in visual resources and land use (due to preclusion of land uses).

The **Harquahala Junction Switchyard Alternative** would eliminate five miles of transmission line construction required for the Proposed Project, but would require disturbance of between 6 and 40 acres of land. This alternative would have the same cultural resources impacts as the Proposed Project. However, the Harquahala Junction Switchyard Alternative would not affect farmland, so would not result in a significant impact from conversion of farmland.

Conclusion: The **Harquahala Junction Switchyard Alternative** is preferred because it would require the least distance of transmission line construction outside of existing corridors, and it would eliminate effects to agricultural lands in the PVNGS area. The alternative with the most severe impacts would be the SCE Harquahala-West Alternative, due to its creation of a new transmission corridor and effects on agricultural land.

Proposed Project vs. Alligator Rock Alternatives

Three alternatives are considered to minimize the Proposed Project's impacts as it passes through the Alligator Rock ACEC. The **Proposed Project** in this segment would have five significant unavoidable impacts:

- **Visual Resources**: Inconsistency with Interim BLM VRM Class II management objective due to increased structure contrast, industrial character, view blockage, and skylining[7] when viewed from the Alligator Rock ACEC.
- **Wilderness and Recreation**: Presence of the new towers would change the character of the Alligator Rock ACEC and adjacent wilderness area, diminishing its recreational value.
- **Cultural Resources:** Construction of the project would cause an adverse change to known historic properties.
- **Cultural Resources:** Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains.
- **Air Quality:** Construction would generate dust and exhaust emissions in the South Coast Air Quality Management District (SCAQMD).

The **Alligator Rock–North of Desert Center** Alternative is 1.2 miles longer than the Proposed Project, but it would not require any new construction within the Alligator Rock ACEC. It would have the same significant impacts in air quality and cultural resources, although the cultural resources potentially affect

[7] Skylining occurs when a transmission tower is seen with only the sky behind it, making it highly visible.

would have less value than those in the ACEC. The alternative would create a different significant visual impact resulting from inconsistency with Interim BLM VRM Class III management objective when viewing the Chuckwalla Mountains from north of Desert Center. The alternative would eliminate the significant impact to wilderness and recreation because it would avoid the Alligator Rock ACEC.

The **Alligator Rock–Blythe Energy Project Alternative** is 0.65 miles longer than the proposed route, and would be still within the Alligator Rock ACEC. It would have the same significant impacts in air quality and cultural resources, although the cultural resources potentially affect would likely have less value than those in the heart of the ACEC. The alternative would create a different significant visual impact, resulting from inconsistency with Interim BLM VRM Class II management objective when viewing Alligator Rock from westbound Interstate 10, east of Desert Center.

The **Alligator Rock–South of I-10 Frontage Alternative** is 0.57 miles longer than the proposed route, and would be still within the Alligator Rock ACEC. It would have the same significant impacts in air quality and cultural resources, although the cultural resources potentially affect would have less value than those in the heart of the ACEC. The alternative would create a different significant visual impact resulting from inconsistency with Interim BLM VRM Class II management objective when viewing Alligator Rock from eastbound Interstate 10.

Conclusion: The Alligator Rock–North of Desert Center Alternative is preferred to the other routes because it would minimize biological, cultural, and wilderness area impacts, even though it would be closer to populated areas and would require two crossings of the I-10.

Proposed Project vs. Desert Southwest Transmission Project Alternative

The Desert Southwest Transmission Project (DSWTP) Alternative would replace the Proposed Project between Blythe and the Devers Substation. Nearly the entire route would be the same as the Proposed Project, but the DSWTP would require construction of several additional substations and a transmission line into Blythe. The **Proposed Project** in this segment would have the following significant impacts:

- **Visual Resources**: Inconsistency with Interim BLM VRM Class II management objective due to increased structure contrast, industrial character, view blockage, and skylining when viewed from the Alligator Rock ACEC.
- **Wilderness and Recreation**: The presence of the new line would change the character of a recreation or wilderness area, diminishing its recreational value.
- **Cultural Resources:** Construction of the project would cause an adverse change to known historic properties.
- **Cultural Resource**: Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains.
- **Noise:** Permanent noise levels along the ROW would increase due to corona noise from operation of the transmission lines.
- **Air Quality**: Construction would generate dust and exhaust emissions in SCAQMD.

The Proposed Project and the **DSWTP Alternative** would be the same over the vast majority of the length of the route. The significant impacts above would be the same for all both projects, except that a different significant visual impact would occur in the area of Alligator Rock where the DSWTP would be closer to the I-10. DSWTP would still result in significant cultural resources impacts, but it would

avoid the specific effects on the N. Chuckwalla Mountains NRHP Quarry District and three other NRHP-eligible sites in the area of Alligator Rock. It would eliminate significant visual resources impact at the Alligator Rock ACEC, but it would create another significant visual impact when viewing Alligator Rock from eastbound Interstate 10.

Conclusion: The Proposed Project is preferred over the DSWTP because it would require less ground disturbance and construction of fewer substations. However, the Midpoint-DSW Substation location would have impacts that are comparable to those of the SCE Midpoint Substation location (no significant impacts at either site, and both sites are on BLM land). As a result, the two substation locations are considered to be equally environmentally superior/preferable. In a comment on the Draft EIR/EIS, the DSW proponents asked that the CPUC and BLM consider designation of this substation location as an acceptable location for SCE to interconnect with the DSW transmission line from the Blythe power plants.

5.2.2 Transmission Line Route Alternatives: West of Devers Segment

The **Proposed Project** in this segment would have three significant impacts:

- **Cultural Resources:** Construction of the project ~~would~~ could cause an adverse change to known historic properties if they cannot be protected from direct construction and operational impacts.
- **Cultural Resources**: Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains.
- **Air Quality**: Construction would generate dust and exhaust emissions in SCAQMD.

In addition, due to the proposed removal of structures in the West of Devers segment, the Proposed Project would result in the following beneficial impacts. These beneficial impacts would not occur if the Devers-Valley No. 2 Alternative were constructed.

- Improved views at three visual resources viewpoints (Cedar Hollow Road in the City of Beaumont, Stargazer Street and Rose Avenue in the City of Beaumont, and the Oak Valley Golf Course in the City of Beaumont)
- Project operation would provide revenue to the Morongo Band of Mission Indians (Impact S-4).

The **Devers-Valley No. 2 Alternative** was considered in the EIR/EIS because there is uncertainty as to whether SCE will negotiate lease renewals for the existing West of Devers corridor with the Morongo Band of Mission Indians in time to allow construction and operation of the West of Devers segment concurrent with the Devers-Harquahala segment of the project. In the absence of that lease renewal, the Proposed Project described by SCE would not be feasible.

The Devers-Valley No. 2 Alternative would not eliminate any significant impacts of the Proposed Project. It would create the following additional significant and unavoidable impacts:

- **Visual Resources**: Increased visual contrast and skylining from 5 key viewpoints along Devers-Valley alternative
- **Visual Resources:** Inconsistency with BLM and San Bernardino National Forest scenic criteria
- **Wilderness and Recreation:** Operation would change the character of a recreation or wilderness area, diminishing its recreational value.

- **Noise:** Permanent noise levels along the ROW would increase due to corona noise from operation of the transmission lines.

While the environmental impacts of the Proposed Project would be less than those of the Devers-Valley No. 2 Alternative, the Devers-Valley No. 2 Alternative is feasible and would be constructed within an existing transmission corridor.

Conclusion: Based only on environmental factors, the West of Devers portion of the Proposed Project is preferred over the Devers-Valley No. 2 Alternative. However, the Devers-Valley No. 2 Alternative would also be in an existing transmission corridor, and it would be feasible to construct. If the Proposed Project is found to be infeasible, the alternative would meet project objectives and allow the entire DPV2 Project to be successfully constructed.

5.2.3 Definition of Environmentally Superior/Preferred Alternative and BLM Agency Preferred Alternative

The conclusions described above for the various alternatives result in the following environmental superior and BLM agency preferred alternative:

- Harquahala Junction Switchyard (the project would begin at this point)
- Proposed Project route from Harquahala Junction Switchyard to east of Alligator Rock
- Alligator Rock–North of Desert Center Alternative to west of Alligator Rock
- Proposed Project route from west of Alligator Rock to Devers Substation
- The SCE Midpoint Substation and the Midpoint-DSW Substation are equally environmentally superior/preferable
- Proposed West of Devers upgrades *unless* determined to be infeasible, in which case the Devers-Valley No. 2 Alternative would be constructed.

The environmentally superior/preferred transmission line route is illustrated in Figures ES-4a and ES-4b.

5.2.4 No Project Alternative vs. the Environmentally Superior Alternative

The No Project Alternative is described in Section 2.2.4 above, and although no specific development scenario is envisioned, certain consequences can be identified without undue speculation. The absence of the Proposed Project may lead SCE or other developers to pursue other actions to achieve the objectives of the Proposed Project. The events or actions that are reasonably expected to occur in the foreseeable future would primarily result from operation of gas-fired turbine generators and new transmission lines. These long-term operational impacts include substantial air emissions and ongoing noise near the generators, as well as visual impacts of the new transmission lines and generators depending on their locations.

Therefore, because the No Project Alternative could also require construction of transmission lines with impacts similar to those described for the Proposed Project, as well as impacts of generation sources, the No Project Alternative is not found to be superior to the Environmentally Superior Alternative as defined above.

This page intentionally blank.

Figure ES-4a. Environmentally Superior/Preferred Alternative (Arizona)
CLICK HERE TO VIEW

This page intentionally blank.

Figure ES-4b. Environmentally Superior/Preferred Alternative (California)
CLICK HERE TO VIEW

This page intentionally blank.

ES.6 Impact Summary Tables

Tables ES-1 through ES-5 on the following pages summarize all identified impacts of the Proposed Project (Tables ES-1 through ES-3) and alternatives (Tables ES-4 and ES-5). For each impact, the following information is presented: impact number and title, impact class[8] (Class I, II, or IV), applicable mitigation measure, and residual impact (whether significant or less than significant).

[8] Impact classes in this EIR/EIS are defined as follows: Class I (significant and unavoidable), Class II (significant but mitigable to less than significant), Class III (adverse but less than significant), Class IV (beneficial).

Table ES-1. Summary of Significant Unmitigable (Class I) Impacts for the Proposed Project

Impact	Mitigation Measure (if any)
Biological Resources	
No Class I Impacts	n/a
Visual Resources	
V-7. Increased visual contrast, view blockage, and skylining when viewed from Key Viewpoint 4 on Crystal Hill Road in Kofa National Wildlife Refuge.	V-3a. Reduce visual contrast of towers and conductors.
V-15. Inconsistency with Interim BLM VRM Class II management objective due to increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 10 in the Alligator Rock ACEC.	V-3a. Reduce visual contrast of towers and conductors.
V-48. Inconsistency of the Harquahala Mountain Telecommunication Facility with BLM VRM Class II management objective due to increased structure contrast, industrial character, view blockage, and skylining when viewed from Harquahala Mountains Wilderness (VRM Class I) and surrounding area (VRM Class II)	C-1g. Minimize effects at Harquahala Peak.
Land Use	
No Class I Impacts	n/a
Wilderness and Recreation	
WR-2. Operation would change the character of a recreation or wilderness area, diminishing its recreational value.	C-1g. Minimize effects at Harquahala Peak. WR-2a. Coordinate with USFWS to improve impacted areas within Kofa National Wildlife Refuge.
Agriculture	
AG-3. Operation would permanently convert Farmland to non-agricultural use	No mitigation proposed
Cultural and Paleontological Resources	
C-1. Construction of the project would cause an adverse change to known historic properties	C-1a. Inventory and evaluate cultural resources in Final APE C-1b. Avoid and protect potentially significant resources. C-1c. Develop and implement Historic Properties Treatment Plan. C-1d. Conduct data recovery to reduce adverse effects. C-1e. Monitor construction. C-1f. Train construction personnel. C-1g. Minimize effects at Harquahala Peak.
C-2. Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains	C-1c. Develop and implement Historic Properties Treatment Plan. C-1d. Conduct data recovery to reduce adverse effects. C-1e. Monitor construction. C-1f. Train construction personnel. C-2a. Consult agencies and Native Americans.
Noise	
N-2. Permanent noise levels along the ROW would increase due to corona noise from operation of the transmission lines.	No mitigation proposed
Transportation & Traffic	
No Class I Impacts	n/a
Public Health & Safety	
No Class I Impacts	n/a

Table ES-1. Summary of Significant Unmitigable (Class I) Impacts for the Proposed Project

Air Quality	
AQ-1. Construction would generate dust and exhaust emissions [SCAQMD (SCAB, SSAB, and MDAB)]	AQ-1a. Develop and Implement a Fugitive Dust Emission Control Plan. AQ-1b. Use ultra low-sulfur diesel fuel. AQ-1c. Restrict engine idling. AQ-1d. Use lower emitting offroad diesel-fueled equipment. AQ-1e. Use onroad vehicles that meet California onroad standards. AQ-1f. Use lower emitting offroad gasoline-fueled equipment. AQ-1g. Reduce helicopter use during construction. AQ-1h. Schedule deliveries outside of peak hours. AQ-1i. Obtain NOx emission offsets.
Hydrology and Water Resources	
No Class I Impacts	n/a
Geology, Mineral Resources, and Soils	
No Class I Impacts	n/a
Socioeconomics	
No Class I Impacts	n/a

Table ES-2. Summary of Significant but Mitigable (Class II) Impacts and Mitigation for the Proposed Project

Impact	Mitigation Measure(s)
Biological Resources	
B-1. Construction activities would result in temporary and permanent loss of native vegetation	B-1a. Prepare and implement a Habitat Restoration/Compensation Plan. B-1b. Coordinate tower placement with USFWS/BLM
B-2. Construction activities would result in the introduction invasive non-native or noxious plant species	B-1a. Prepare and implement a Habitat Restoration/Compensation Plan. B-2a. Conduct invasive and noxious weed inventory. B-2b. Implement control measures for invasive and noxious weeds
B-5. Construction activities during the breeding season would result in a potential loss of nesting birds	B-5a. Conduct pre-construction surveys and monitoring for breeding birds
B-6. Construction activities would result in indirect or direct loss of listed plants	B-6a. Develop a transplanting plan
B-7. Construction activities would result in indirect or direct loss of listed wildlife or habitat	B-1a. Prepare and implement a Habitat Restoration/Compensation Plan. B-7a. Avoid Colorado River. B-7b. Conduct pre-construction tortoise surveys. B-7c. Purchase mitigation lands for impacts to tortoise habitat. B-7d. Purchase mitigation lands for impacts to fringe-toed lizard habitat, clear work areas of CVFTL in the Coachella Valley Preserve. B-5a. Conduct pre-construction surveys and monitoring for breeding birds. B-7e. Conduct focused surveys for California gnatcatchers. B-1a. Prepare and implement a Habitat Restoration/Compensation Plan B-7f. Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat.
B-9. Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	B-1a. Prepare and implement a Habitat Restoration/Compensation Plan. B-5a. Conduct pre-construction surveys and monitoring for breeding birds. B-9a. Conduct pre-construction surveys. B-9b. Conduct biological monitoring. B-9c. Implement a Worker Environmental Awareness Program. B-9d. Conduct pre-construction reptile surveys. B-9e. Conduct pre-construction surveys and owl relocation. B-9f. Perform construction outside of breeding and lambing period. B-9g. Conduct pre-construction surveys and relocation for American badger. B-9h. Conduct pre-construction surveys for roosting bats. B-9i. Schedule construction when the Coachella Valley round-tailed squirrel is dormant.
B-10. The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands	B-1a. Prepare and implement a Habitat Restoration/ Compensation Plan.
B-11. Construction activities would result in adverse effects to the movement of fish, wildlife movement corridors, or native wildlife nursery sites	B-9h. Conduct pre-construction surveys for roosting bats. B-9f. Perform construction outside of breeding and lambing period.

Table ES-2. Summary of Significant but Mitigable (Class II) Impacts and Mitigation for the Proposed Project

Impact	Mitigation Measure(s)
B-13. Construction activities may conflict with local policies or ordinances protecting biological resources	B-7b. Conduct pre-construction tortoise surveys. B-7c. Purchase mitigation lands for impacts to tortoise habitat. B-9f. Perform construction outside of breeding and lambing period. B-7d. Purchase mitigation lands for impacts to fringe-toed lizard habitat. B-9i. Schedule construction when the Coachella Valley round-tailed squirrel is dormant. B-13a. Demonstrate compliance with the Western Riverside County MSHCP. SCE shall provide documentation that it has complied with the provisions of the MSHCP. B-13b. Implement the Best Management Practices required by the Western Riverside County MSHCP.
B-15. Operation of the transmission line may result in collisions by listed bird species	B-15a. Utilize collision-reducing techniques in installation of transmission lines.
B-16. Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	B-16a. Prepare and implement a raven control plan.
Visual Resources	
V-2. Long-term visibility of land scarring in arid and semi-arid landscapes.	V-2a. Reduce in-line views of land scars. V-2b. Reduce visual contrast from unnatural vegetation lines. V-2c. Reduce color contrast of land scars.
Land Use	
L-1. Construction would temporarily disturb the land uses it traverses or adjacent land uses.	L-1a. Prepare Construction Notification Plan. L-1b. Coordinate with the Central Arizona Project regarding canal crossings.
L-2. Operation would result in permanent preclusion of land uses it traverses or adjacent land uses.	L-1a: Prepare Construction Notification Plan. L-1b. Coordinate with the Central Arizona Project regarding canal crossings. L-1c. Provide proof of resolution of land acquisition issues for crossing of Agua Caliente Band of Cahuilla Indians tribal lands.
Wilderness and Recreation	
WR-1. Construction activities would temporarily reduce access and visitation to recreation or wilderness areas.	WR-1a. Coordinate construction schedule and activities with the authorized officer for the recreation area.
WR-3. Operation would permanently preclude recreational activities.	WR-3a. Coordinate tower and road locations with the authorized officer for the recreation area.
Agriculture	
AG-1. Construction activities would temporarily convert Farmland to non-agricultural use	AG-1a. Establish agreement and coordinate construction activ--ties with agricultural landowners.
AG-2. Construction activities would interfere with agricultural operations	L-1a. Prepare Construction Notification Plan. AG-1a. Establish agreement and coordinate construction activ-ities with agricultural landowners.
AG-4. Operation would interfere with agricultural operations	AG-4a. Locate transmission towers and pulling/splicing stations to avoid agricultural operations.
AG-5. Construction activities would conflict with a Williamson Act contract	AG-1a. Establish agreement and coordinate construction activ-ities with agricultural landowners.

Table ES-2. Summary of Significant but Mitigable (Class II) Impacts and Mitigation for the Proposed Project

Impact	Mitigation Measure(s)
Cultural and Paleontological Resources	
C-1. Construction of the project would cause an adverse change to known historic properties	C-1a. Inventory and evaluate cultural resources in Final APE C-1b. Avoid and protect potentially significant resources. C-1c. Develop and implement Historic Properties Treatment Plan. C-1d. Conduct data recovery to reduce adverse effects. C-1e. Monitor construction. C-1f. Train construction personnel. C-1g. Minimize effects at Harquahala Peak.
C-2. Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains	C-1c. Develop and implement Historic Properties Treatment Plan. C-1d. Conduct data recovery to reduce adverse effects. C-1e. Monitor construction. C-1f. Train construction personnel. C-2a. Consult agencies and Native Americans.
C 3. Construction of the project could cause an adverse change to Traditional Cultural Properties	C-3a. Complete consultation with Native American and other Traditional Groups. C-5a. Protect and monitor NRHP-eligible properties.
C-4. Construction of the project could destroy or disturb significant paleontological resources	C-4a. Inventory paleontological resources in Final APE. C-4b. Develop Paleontological Monitoring and Treatment Plan. C-4c. Monitor construction for paleontology. C-4d. Conduct paleontological data recovery. C-4e. Train construction personnel.
C-5. Operation and long-term presence of the project could cause an adverse change to known historic properties	C-2a. Consult agencies and Native Americans. C-3a. Complete consultation with Native American and other Traditional Groups. C-5a. Protect and monitor NRHP-eligible properties.
Noise	
N-1. Construction noise could substantially disturb sensitive receptors or violate local rules, standards, and/or ordinances.	N-1a. Implement best management practices for construction noise.
Transportation and Traffic	
T-7. Construction vehicles and equipment would potentially cause physical damage to roads in the project area.	T-7a. Repair roadways damaged by construction activities.
T-12. Construction would result in the short-term elimination of parking spaces.	L-1e. Coordinate with business owners.
Public Health & Safety	
P-1. Soil contamination as a result of improper handling and/or storage of hazardous materials during construction activities	P-1a. Develop Hazardous Substance Control and Emergency Response Plan. P-1b. Conduct environmental training and monitoring program. P-1c. Ensure proper disposal of construction waste. P-1d. Maintain emergency spill supplies and equipment.
P-2. Residual pesticides and or herbicides could be encountered during grading or excavation in agricultural areas	P-2a. Identify pesticide/herbicide contamination.
P-3. Previously unknown contamination could be encountered during grading or excavation	P-3a. Observe exposed soil for evidence of contamination.
P-4. Soil contamination could result from accidental spill or release of hazardous materials during operations and maintenance	P-4a. Prepare Spill Prevention, Countermeasure, and Control Plans.

Table ES-2. Summary of Significant but Mitigable (Class II) Impacts and Mitigation for the Proposed Project

Impact	Mitigation Measure(s)
Air Quality	
AQ-1. Construction would generate dust and exhaust emissions (ADEQ, MDAQMD)	AQ 1a. Develop and Implement a Fugitive Dust Emission Control Plan. AQ-1b. Use ultra low-sulfur diesel fuel. AQ-1c. Restrict engine idling. AQ-1d. Use lower emitting offroad diesel-fueled equipment. AQ-1e. Use onroad vehicles that meet California onroad standards. AQ-1f. Use lower emitting offroad gasoline-fueled equipment. AQ-1g. Reduce helicopter use during construction.
Hydrology and Water Resources	
H-2. Degradation of water quality through spill of potentially harmful materials used in construction	P-1a. Develop Hazardous Substance Control and Emergency Response Plan. P 1b. Conduct environmental training and monitoring program. P 1c. Ensure proper disposal of construction waste. P 1d. Maintain emergency spill supplies and equipment.
H-4. Water quality degradation caused by accidental releases of oil from project facilities	P-4a. Prepare Spill Prevention, Countermeasure, and Control Plans.
H-6. Encroachment into a floodplain or watercourse by permanent aboveground project features resulting in flooding, flood diversions, or erosion.	H-6a. Design diversion dikes or other site remediations to avoid damage to adjacent property.
Geology, Mineral Resources, and Soils	
G-1. Construction could accelerate erosion	G-1a. Protect desert pavement.
G-2. Project structures could be damaged by problematic soils	G-2a. Conduct geotechnical studies for ~~problematic~~ soils to assess characteristics and aid in appropriate foundation design.
G-3. Excavation or grading during construction could cause slope instability.	G-3a. Conduct geotechnical surveys for landslides.
G-4. Project structures could be damaged by landslides, earthflows, and/or debris flows	G-3a. Conduct geotechnical surveys for landslides.
G-5. Project structures could be damaged by seismically included groundshaking and ground failure	G-5a. Protect project facilities from ground failure.
G-6. Construction activities would render known mineral resources inaccessible.	G-6a. Coordinate with quarry operations.
G-7. Project structures could be damaged by surface fault rupture at crossings of active and potentially active faults.	G-7a. Minimize project structures within active fault zones.
Socioeconomics	
S-2. Project construction would place demands on local water or solid waste utilities.	S-2a. Recycle construction waste.

Table ES-3. Summary of Beneficial (Class IV) Impacts for the Proposed Project *

Visual Resources
V-27. Beneficial impact from reduction in structure prominence and view blockage when viewed from Key Viewpoint 21 on Cedar Hollow Road in the City of Beaumont.
V-28. Beneficial impact from reduction in structure prominence and view blockage when viewed from Key Viewpoint 22 at the intersection of Stargazer Street and Rose Avenue in the City of Beaumont.
V-29. Beneficial impact from reduction in structure prominence and view blockage when viewed from Key Viewpoint 23 on the Oak Valley Golf Course in the City of Beaumont.
Air Quality
AQ-3. Power generated during transmission line operation would cause emissions from power plants (SCAQMD)
Socioeconomics
S-3. Project operation would provide revenue to the Agua Caliente Band of Cahuilla Indians.
S-4. Project operation would provide revenue to the Morongo Band of Mission Indians.

* There are no Beneficial Impacts in Issue Areas omitted above.

Table ES-4. Summary of Class I Impacts for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
Biological Resources		
No Class I Impacts	none	n/a
Visual Resources		
V-33. Inconsistency with BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 27 on a BLM access road to Courthouse Rock and the Eagletail Mountains.	SCE Harquahala-West Alternative	V-3a. Reduce visual contrast of towers and conductors.
V-36. Inconsistency with Interim BLM VRM Class II management objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewing Alligator Rock from Key Viewpoint 30 on eastbound Interstate 10.	DSWTP Alternative	V-3a. Reduce visual contrast of towers and conductors.
V-37. Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewing the Chuckwalla Mountains from Key Viewpoint 31 on southbound Kaiser Road, north of Desert Center.	Alligator Rock–North of Desert Center Alternative	V-3a. Reduce visual contrast of towers and conductors.
V-38. Inconsistency with Interim BLM VRM Class II management objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewing Alligator Rock from Key Viewpoint 32 on westbound Interstate 10, east of Desert Center.	Alligator Rock–Blythe Energy Transmission Alternative	V-3a. Reduce visual contrast of towers and conductors.
V-39. Inconsistency with Interim BLM VRM Class II management objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewing Alligator Rock from Key Viewpoint 30 on eastbound Interstate 10 *(Same as V-36).*	Alligator Rock–South of I-10 Frontage Alternative	V-3a. Reduce visual contrast of towers and conductors.
V-40. Increased structure contrast and skylining when viewing the San Jacinto Mountains from Key Viewpoint 33 on the Pacific Crest Trail in the vicinity of the Snow Creek Village residential community (VS-VC)	Devers-Valley No. 2 Alternative	V-40a. Reduce visual contrast of towers and conductors. V-40b. Reduce visual contrast of towers and conductors on San Bernardino National Forest land. V-40c. Reduce visual contrast of towers and conductors near the Pacific Crest Trail.
V-41. Inconsistency with BLM VRM Class II management objective due to introduction of structure contrast and industrial character when viewing the San Jacinto Mountains from BLM-managed lands within the Santa Rosa and San Jacinto Mountains National Monument (in the vicinity of KVP 33) (VRM)	Devers-Valley No. 2 Alternative	V-40a. Reduce visual contrast of towers and conductors.
V-42. Inconsistency with U.S. Forest Service Scenic Integrity Objective (SIO) due to introduction of structure contrast and industrial character	Devers-Valley No. 2 Alternative	V-40a. Reduce visual contrast of towers and conductors.
V-43. Increased structure contrast, skylining, and view blockage when viewed from Key Viewpoint 34 in the residential community in Cabazon (VS-VC)	Devers-Valley No. 2 Alternative	V-40a. Reduce visual contrast of towers and conductors.
V-44. Increased structure contrast and skylining when viewing the San Jacinto Mountains and San Gorgonio Pass from Key Viewpoint 35 on southbound State Route 243 (VS-VC)	Devers-Valley No. 2 Alternative	V-40a. Reduce visual contrast of towers and conductors.

Table ES-4. Summary of Class I Impacts for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
V-45. Increased structure contrast, skylining, and view blockage when viewed from residential areas in southern Banning and Beaumont	Devers-Valley No. 2 Alternative	V-40a. Reduce visual contrast of towers and conductors.
V-46. Inconsistency with BLM VRM Class II management objective due to introduction of structure contrast and industrial character when viewing from BLM-managed lands within the Potrero ACEC (VRM)	Devers-Valley No. 2 Alternative	V-40a. Reduce visual contrast of towers and conductors.
V-47. Increased structure contrast, skylining, and view blockage when viewed from Key Viewpoint 36 on Mapes Road (VS-VC)	Devers-Valley No. 2 Alternative	V-40a. Reduce visual contrast of towers and conductors.
Land Use		
~~L-2. Operation would result in permanent preclusion of land uses it traverses or adjacent land uses.~~No Class I Impacts.	~~SCE Harquahala-West Alternative~~	~~L-1b. Coordinate with the Central Arizona Project regarding canal crossings.~~
Wilderness and Recreation		
WR-2. Operation would change the character of a recreation or wilderness area, diminishing its recreational value.	Desert Southwest Transmission Project Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Alligator Rock–South of I-10 Frontage Alternative, Devers-Valley No. 2 Alternative	No mitigation proposed.
Agriculture		
Ag-3. Operation would permanently convert Farmland to non-agricultural use	SCE Harquahala-West Alternative	No mitigation proposed.
Cultural and Paleontological Resources		
C-1. Construction of the project would cause an adverse change to known historic properties	All project alternatives.	C 1a. Inventory and evaluate cultural resources in Final APE C 1b. Avoid and protect potentially significant resources. C 1c. Develop and implement Historic Properties Treatment Plan. C 1d. Conduct data recovery to reduce adverse effects. C 1e. Monitor construction. C 1f. Train construction personnel.
C-2. Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains	All project alternatives.	C 1c. Develop and implement Historic Properties Treatment Plan. C 1d. Conduct data recovery to reduce adverse effects. C 1e. Monitor construction. C 1f. Train construction personnel. C 2a. Consult agencies and Native Americans.

Table ES-4. Summary of Class I Impacts for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
Noise		
N-2. Permanent noise levels along the ROW would increase due to corona noise from operation of the transmission lines.	Desert Southwest Transmission Project Alternative, Devers-Valley No. 2 Alternative	No mitigation proposed.
Transportation & Traffic		
No Class I Impacts	none	n/a
Public Health & Safety		
No Class I Impacts	none	n/a
Air Quality		
AQ-1. Construction would generate dust and exhaust emissions SCAQMD (SCAB, SSAB, and MDAB)	Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Alligator Rock–South of I-10 Frontage Alternative, Devers-Valley No. 2 Alternative	AQ 1a. Develop and Implement a Fugitive Dust Emission Control Plan. AQ-1b. Use ultra low-sulfur diesel fuel. AQ-1c. Restrict engine idling. AQ-1d. Use lower emitting offroad diesel-fueled equipment. AQ-1e. Use onroad vehicles that meet California onroad standards. AQ-1f. Use lower emitting offroad gasoline-fueled equipment. AQ-1g. Reduce helicopter use during construction. AQ-1h. Schedule deliveries outside of peak hours. AQ-1i. Obtain NOx emission offsets.
Hydrology and Water Resources		
No Class I Impacts	none	n/a
Geology, Mineral Resources, and Soils		
No Class I Impacts	none	n/a
Socioeconomics		
No Class I Impacts	none	n/a

Table ES-5. Summary of Class II Impacts and Mitigation for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
Biological Resources		
B-1. Construction activities would result in temporary and permanent loss of native vegetation	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Devers-Valley No. 2 Alternative	B-1a. Prepare and implement a Habitat Restoration/Compensation Plan.
B-2. Construction activities would result in the introduction invasive non-native or noxious plant species	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Devers-Valley No. 2 Alternative	B-1a. Prepare and implement a Habitat Restoration/Compensation Plan. B-2a. Conduct invasive and noxious weed inventory. B-2b. Implement control measures for invasive and noxious weeds
B-5. Construction activities during the breeding season would result in a potential loss of nesting birds	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Devers-Valley No. 2 Alternative	B-5a. Conduct pre-construction surveys and monitoring for breeding birds
B-6. Construction activities would result in indirect or direct loss of listed plants	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Devers-Valley No. 2 Alternative	B-6a. Develop a transplanting plan

Table ES-5. Summary of Class II Impacts and Mitigation for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
B-7. Construction activities would result in indirect or direct loss of listed wildlife or habitat	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Devers-Valley No. 2 Alternative	B-1a. Prepare and implement a Habitat Restoration/Compensation Plan. B-5a. Conduct pre-construction surveys and monitoring for breeding birds. B-7b. Conduct pre-construction tortoise surveys. B-7c. Purchase mitigation lands for impacts to tortoise habitat. B-7e. Conduct focused surveys for California gnatcatchers. B-7f. Conduct focused surveys for Stephens' kangaroo rat and San Bernardino kangaroo rat. B-9f. Perform construction outside of breeding and lambing period.
B-8. Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive plants	Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Devers-Valley No. 2 Alternative	B-8a. Conduct surveys for listed plant species.
B-9. Construction activities would result in indirect or direct loss of individuals, or a direct loss of habitat for sensitive wildlife	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Devers-Valley No. 2 Alternative	B-1a. Prepare and implement a Habitat Restoration/Compensation Plan. B-5a. Conduct pre-construction surveys and monitoring for breeding birds. B-9a. Conduct pre-construction surveys. B-9b. Conduct biological monitoring. B-9c. Implement a Worker Environmental Awareness Program. B-9d . Conduct pre-construction reptile surveys. B-9e. Conduct pre-construction surveys and owl relocation. B-9h. Conduct pre-construction surveys for roosting bats. B-9i. Schedule construction when the Coachella Valley round-tailed squirrel is dormant.

Table ES-5. Summary of Class II Impacts and Mitigation for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
B-10. The Proposed Project would result in adverse effects to Jurisdictional Waters and Wetlands	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Devers-Valley No. 2 Alternative	B-1a. Prepare and implement a Habitat Restoration/Compensation Plan.
B-13. Construction activities may conflict with local policies or ordinances protecting biological resources	Desert Southwest Transmission Project Alternative, Devers-Valley No. 2 Alternative	B-7b. Conduct pre-construction tortoise surveys. B-7c. Purchase mitigation lands for impacts to tortoise habitat. B-9f. Perform construction outside of breeding and lambing period. B-7d. Purchase mitigation lands for impacts to fringe-toed lizard habitat. B-9i. Schedule construction when the Coachella Valley round-tailed squirrel is dormant. B-13a. Demonstrate compliance with the Western Riverside County MSHCP. SCE shall provide documentation that it has complied with the provisions of the MSHCP. B-13b. Implement the Best Management Practices required by the Western Riverside County MSHCP.
B-15. Operation of the transmission line may result in collisions by listed bird species	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Devers-Valley No. 2 Alternative	B-15a. Utilize collision-reducing techniques in installation of transmission lines.

Table ES-5. Summary of Class II Impacts and Mitigation for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
B-16. Operation of the transmission line may result in increased predation of listed and sensitive wildlife species by ravens that nest on transmission towers	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Devers-Valley No. 2 Alternative	B-16a. Prepare and implement a raven control plan.
B-18. The Project would result in disturbance to Management Indicator Species.	Devers-Valley No. 2 Alternative	B-5a Conduct preconstruction surveys. B-18a. No activities in riparian conservation areas.
Visual Resources		
V-2. Long-term visibility of land scars in arid and semi-arid landscapes.	DSWTP Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Alligator Rock–South of I-10 Frontage Alternative, Devers-Valley No. 2 Alternative.	V 2a. Reduce in-line views of land scars. V 2b. Reduce visual contrast from unnatural vegetation lines. V 2c. Reduce color contrast of land scars.
V-35. Increased structure contrast, industrial character, structure prominence, view blockage, and skylining when viewing the Harquahala Junction Switchyard Alternative site from Viewpoint 29 on Salome Highway.	Harquahala Junction Switchyard Alternative	V-6a: Reduce Visual Contrast Associated with Ancillary Facilities. V-6b. Screen ancillary facilities. V-6c: Reduce night lighting impacts. V-35a. Screen alternative switchyard site from Salome Highway views.
Land Use		
L-1. Construction would temporarily disturb the land uses it traverses or adjacent land uses.	SCE Harquahala-West Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Alligator Rock–South of I-10 Frontage Alternative, Devers-Valley No. 2 Alternative	L-1a. Prepare Construction Notification Plan. L-1b. Coordinate with the Central Arizona Project regarding canal crossings. L-1c. Provide proof of resolution of land acquisition issues for crossing of Agua Caliente Band of Cahuilla Indians tribal lands.
L-2. Operation would result in permanent preclusion of land uses it traverses or adjacent land uses.	SCE Harquahala-West Alternative	AG-4a. Locate transmission towers and pulling/splicing stations to avoid agricultural operations

Table ES-5. Summary of Class II Impacts and Mitigation for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
Wilderness and Recreation		
WR-1. Construction activities would temporarily reduce access and visitation to recreation or wilderness areas.	SCE Harquahala-West Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Alligator Rock–South of I-10 Frontage Alternative, Devers-Valley No. 2 Alternative	WR-1a. Coordinate construction schedule and activities with the authorized officer for the recreation area.
WR-3. Operation would permanently preclude recreational activities.	Desert Southwest Transmission Project Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Alligator Rock–South of I-10 Frontage Alternative, Devers-Valley No. 2 Alternative	WR-3a. Coordinate tower and road locations with the authorized officer for the recreation area.
Agriculture		
AG-1. Construction activities would temporarily convert Farmland to non-agricultural use	SCE Harquahala-West Alternative, SCE Palo Verde Alternative	AG-1a. Establish agreement and coordinate construction activities with agricultural landowners.
AG-2. Construction activities would interfere with agricultural operations	SCE Harquahala-West Alternative, SCE Palo Verde Alternative	L-1a. Prepare Construction Notification Plan. AG-1a. Establish agreement and coordinate construction activities with agricultural landowners.
AG-4. Operation would interfere with agricultural operations	SCE Harquahala-West Alternative	AG-4a. Locate transmission towers and pulling/splicing stations to avoid agricultural operations.
Cultural and Paleontological Resources		
C-1. Construction of the project would cause an adverse change to known historic properties	All project alternatives.	C-1b. Avoid and protect potentially significant resources. C-1c. Develop and implement Historic Properties Treatment Plan. C-1d. Conduct data recovery to reduce adverse effects. C-1e. Monitor construction. C-1f. Train construction personnel.

Table ES-5. Summary of Class II Impacts and Mitigation for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
C-2. Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains	All project alternatives.	C-1c. Develop and implement Historic Properties Treatment Plan. C-1d. Conduct data recovery to reduce adverse effects. C-1e. Monitor construction. C-1f. Train construction personnel. C-2a. Consult agencies and Native Americans.
C 3. Construction of the project could cause an adverse change to Traditional Cultural Properties	All project alternatives.	C-3a. Complete consultation with Native American and other Traditional Groups.
C-4. Construction of the project could destroy or disturb significant paleontological resources	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Harquahala Junction Switchyard Alternative, Devers-Valley No. 2 Alternative	C-4a. Inventory paleontological resources in Final APE. C-4b. Develop Paleontological Monitoring and Treatment Plan. C-4c. Monitor construction for paleontology. C-4d. Conduct paleontological data recovery. C-4e. Train construction personnel.
C-5. Operation and long-term presence of the project could cause an adverse change to known historic properties	All project alternatives.	C-2a. Consult agencies and Native Americans. C-3a. Complete consultation with Native American and other Traditional Groups. C-5a. Protect and monitor NRHP-eligible properties.
Noise		
N-1. Construction noise could substantially disturb sensitive receptors or violate local rules, standards, and/or ordinances.	SCE Palo Verde Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative, Alligator Rock–South of I-10 Frontage Alternative, Devers-Valley No. 2 Alternative	No mitigation proposed.
Transportation and Traffic		
T-7. Construction vehicles and equipment would potentially cause physical damage to roads in the project area.	All project alternatives.	T-7a. Repair roadways damaged by construction activities.

Table ES-5. Summary of Class II Impacts and Mitigation for Alternative Routes

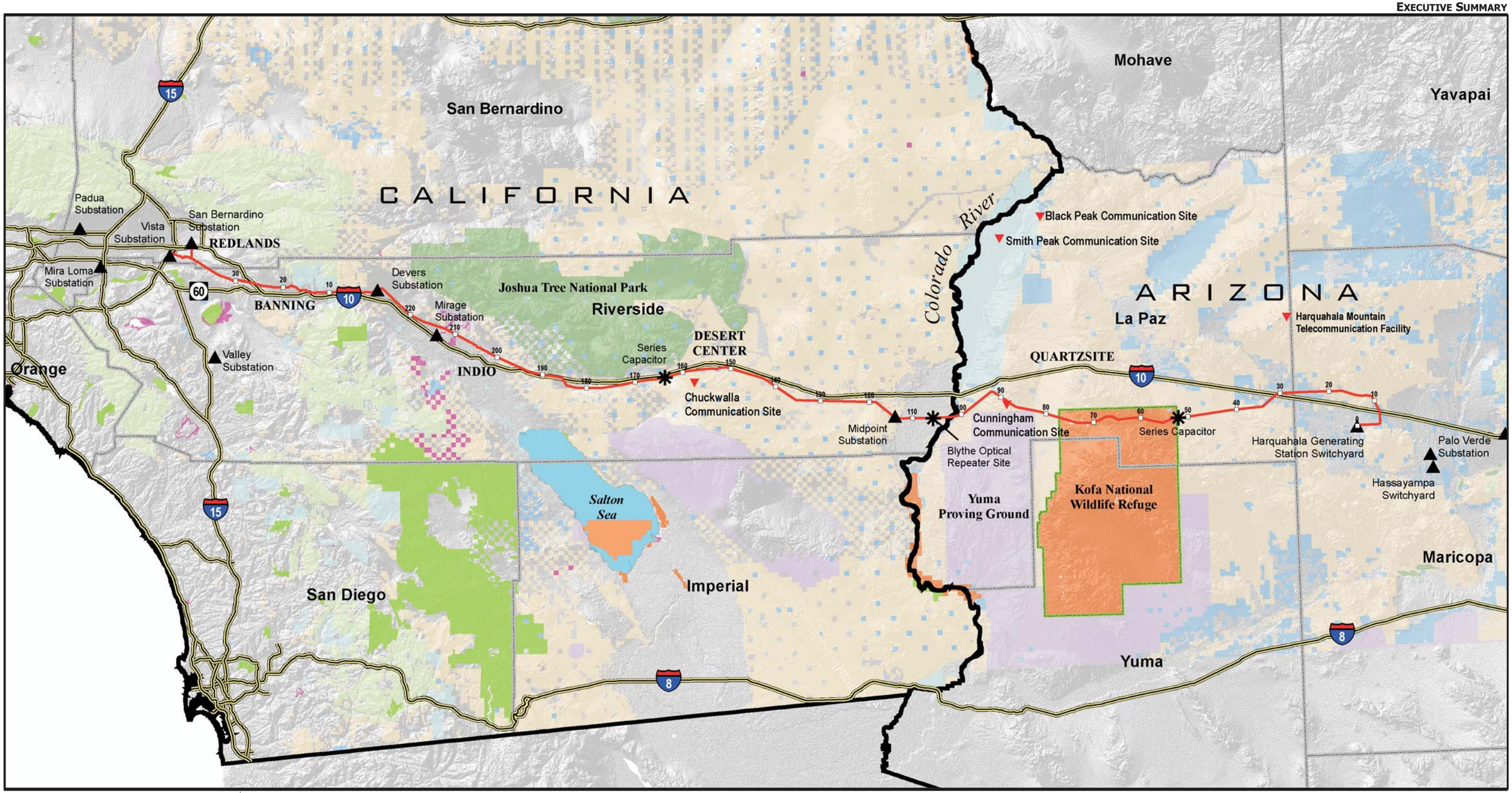
Impact	Applicable Alternatives	Mitigation Measure(s)
Public Health & Safety		
P-1. Soil contamination could~~as a~~ result from ~~of~~ improper handling and/or storage of hazardous materials during construction activities	All project alternatives.	P-1a. Develop Hazardous Substance Control and Emergency Response Plan. P-1b. Conduct environmental training and monitoring program. P-1c. Ensure proper disposal of construction waste. P-1d. Maintain emergency spill supplies and equipment.
P-2. Residual pesticides and or herbicides could be encountered during grading or excavation in agricultural areas	SCE Harquahala-West Alternative, Devers-Valley No. 2 Alternative	P-2a. Identify pesticide/herbicide contamination.
P-3. Previously unknown contamination could be encountered during grading or excavation	SCE Palo Verde Alternative	P-3a. Observe exposed soil for evidence of contamination.
P-4. Soil contamination could result from accidental spill or release of hazardous materials during operations and maintenance	SCE Palo Verde Alternative, Harquahala Junction Switchyard Alternative, Desert Southwest Transmission Project Alternative, Devers-Valley No. 2 Alternative	P-4a. Prepare Spill Prevention, Countermeasure, and Control Plans.
Air Quality		
AQ-1. Construction would generate dust and exhaust emissions [MCAQD, ADEQ, MDAQMD, SCAQMD (SSAB and MDAB)]	SCE Harquahala-West Alternative, Desert Southwest Transmission Project Alternative	AQ-1a. Develop and Implement a Fugitive Dust Emission Control Plan. AQ-1b. Use ultra low-sulfur diesel fuel. AQ-1c. Restrict engine idling. AQ-1d. Use lower emitting offroad diesel-fueled equipment. AQ-1e. Use onroad vehicles that meet California onroad standards. AQ-1f. Use lower emitting offroad gasoline-fueled equipment. AQ-1g. Reduce helicopter use during construction. AQ-1h. Schedule deliveries outside of peak hours. AQ-1i. Obtain NOx emission offsets.
Hydrology and Water Resources		

Table ES-5. Summary of Class II Impacts and Mitigation for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
H-2. Degradation of water quality through spill of potentially harmful materials used in construction	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Harquahala Junction Switchyard Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Alligator Rock–Blythe Energy Transmission Alternative , Alligator Rock–South of I-10 Frontage Alternative, Devers-Valley No. 2 Alternative	P 1a. Develop Hazardous Substance Control and Emergency Response Plan. P 1b. Conduct environmental training and monitoring program. P 1c. Ensure proper disposal of construction waste. P 1d. Maintain emergency spill supplies and equipment.
H 4 . Water quality degradation caused by accidental releases of oil from project facilities	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Harquahala Junction Switchyard Alternative, Desert Southwest Transmission Project Alternative, Devers-Valley No. 2 Alternative	P 4a. Prepare Spill Prevention, Countermeasure, and Control Plans.
H-6. Encroachment into a floodplain or watercourse by permanent aboveground project features resulting in flooding, flood diversions, or erosion.	Devers-Valley No. 2 Alternative	H-6a. Design diversion dikes or other site remediations to avoid damage to adjacent property.
Geology, Mineral Resources, and Soils		
G-1. Construction could accelerate erosion	SCE Harquahala-West Alternative, SCE Palo Verde Alternative, Harquahala Junction Switchyard Alternative, Desert Southwest Transmission Project Alternative, Alligator Rock–North of Desert Center Alternative, Devers-Valley No. 2 Alternative	G-1a. Protect desert pavement.
G-2. Project structures could be damaged by problematic soils	All project alternatives.	G-2a. Conduct geotechnical studies for ~~problematic~~ soils to assess characteristics and aid in appropriate foundation design.
G-3. Excavation or grading during construction could cause slope instability.	Devers-Valley No. 2 Alternative	G-3a. Conduct geotechnical surveys for landslides.
G-4. Project structures could be damaged by landslides, earthflows, and/or debris flows	Devers-Valley No. 2 Alternative	G-3a. Conduct geotechnical surveys for landslides.
G-5. Project structures could be damaged by seismically included groundshaking and ground failure	Devers-Valley No. 2 Alternative	G-5a. Protect project facilities from ground failure.

Table ES-5. Summary of Class II Impacts and Mitigation for Alternative Routes

Impact	Applicable Alternatives	Mitigation Measure(s)
G-7. Project structures could be damaged by surface fault rupture at crossings of active and potentially active faults.	Harquahala Junction Switchyard Alternative, Desert Southwest Transmission Project Alternative, Devers-Valley No. 2 Alternative	G-7a. Minimize project structures within active fault zones.
Socioeconomics		
No Class II Impacts	none	n/a



PREPARED BY Aspen Environmental Group

Proposed Project
Mileposts

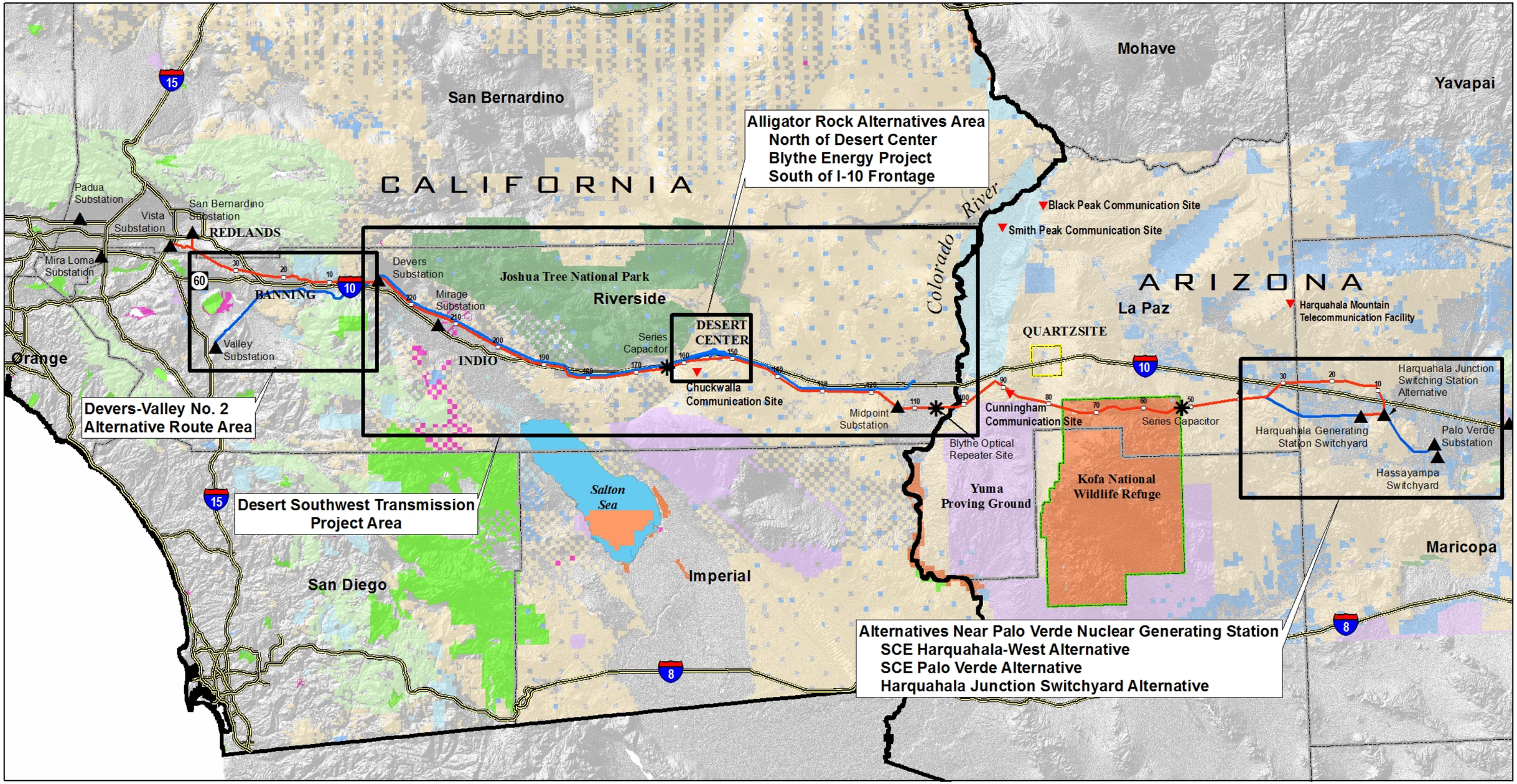
0 10 20 30 40 50 Miles

OWNERSHIP/JURISDICTIONS (unincorporated areas)

- BLM
- Fish and Wildlife Service
- Indian Lands
- Military
- State Parks & Recreation
- National Park Service
- Forest Service
- Nature Conservancy
- State Fish and Game
- State
- Private
- Substations
- Series Capacitor
- Construction Yard
- Communications Site

Devers-Palo Verde No. 2 Transmission Line Project

Figure ES-1
Regional Overview Map



PREPARED BY Aspen Environmental Group

Proposed Project
Mileposts
Alternatives Considered

0 10 20 30 40 50 Miles

OWNERSHIP/JURISDICTIONS (unincorporated areas)

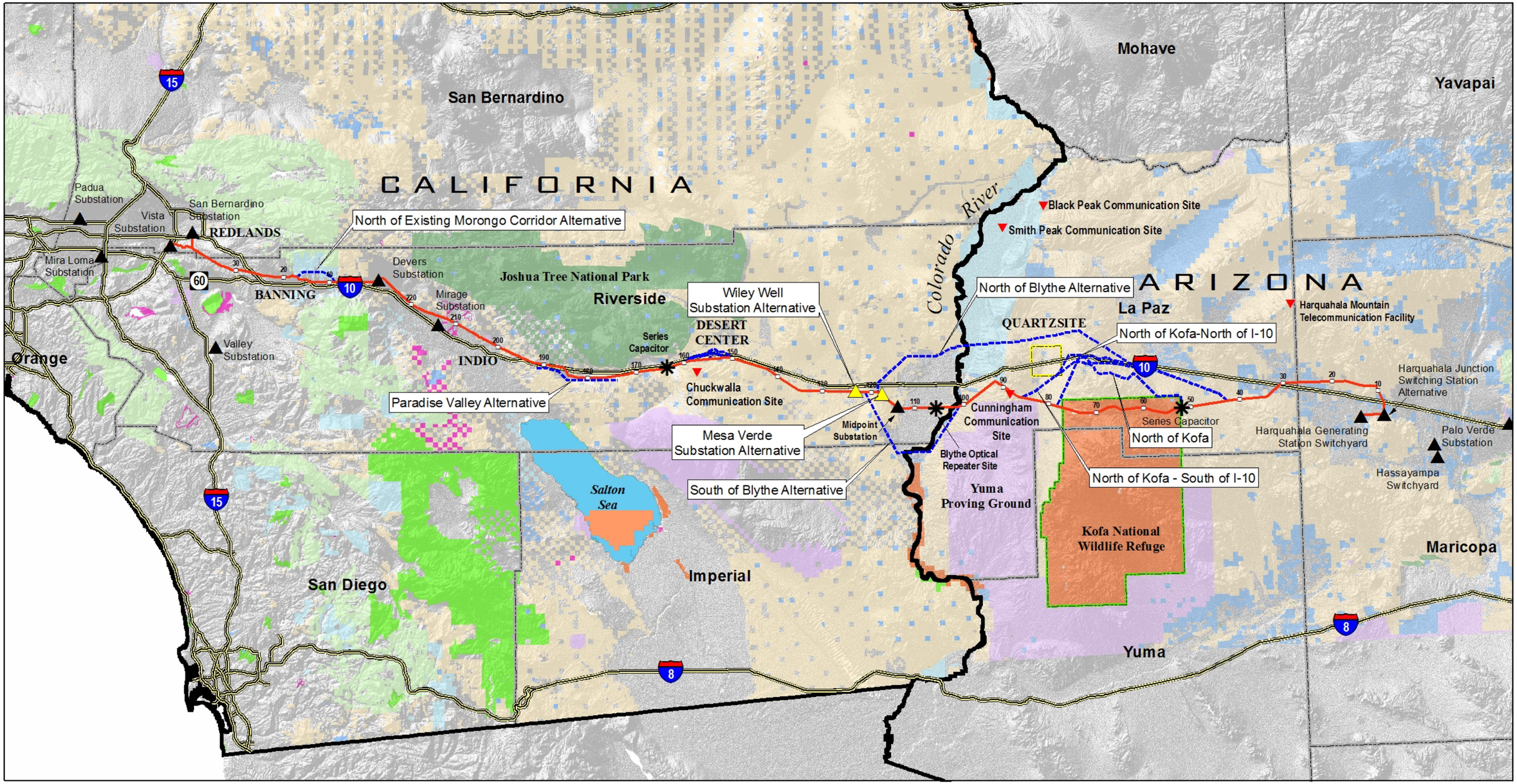
- BLM
- Fish and Wildlife Service
- Indian Lands
- Military
- State Parks & Recreation
- National Park Service
- Forest Service
- Nature Conservancy
- State Fish and Game
- State
- Private

- Substations
- Series Capacitor
- Construction Yard
- Communications Site

Devers-Palo Verde No. 2 Transmission Line Project

Figure ES-2

Alternatives Considered



PREPARED BY Aspen Environmental Group

Proposed Project
Mileposts
Alternatives Eliminated
Substations Eliminated

0 10 20 30 40 50 Miles

OWNERSHIP/JURISDICTIONS (unincorporated areas)

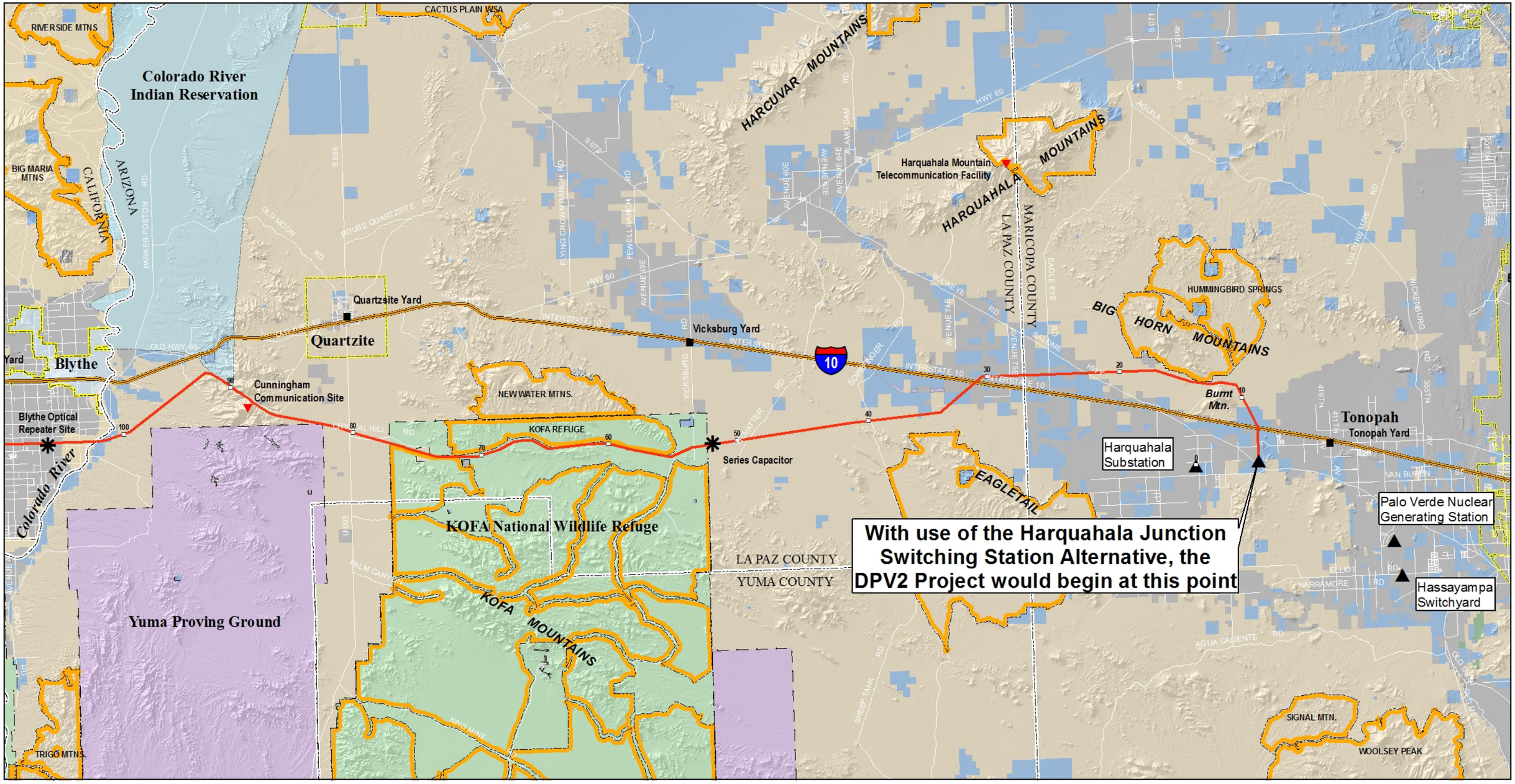
- BLM
- Fish and Wildlife Service
- Indian Lands
- Military
- State Parks & Recreation
- National Park Service
- Forest Service
- Nature Conservancy
- State Fish and Game
- State
- Private

- Substations
- Series Capacitor
- Construction Yard
- Communications Site

Devers-Palo Verde No. 2 Transmission Line Project

Figure ES-3

Alternatives Eliminated



PREPARED BY Aspen Environmental Group

Environmentally Superior/ Preferred Alternative

Mileposts

OWNERSHIP/JURISDICTIONS (unincorporated areas)

- BLM
- FWS
- Indian Lands
- Military
- State
- Private
- Incorporated Areas
- Wilderness Areas

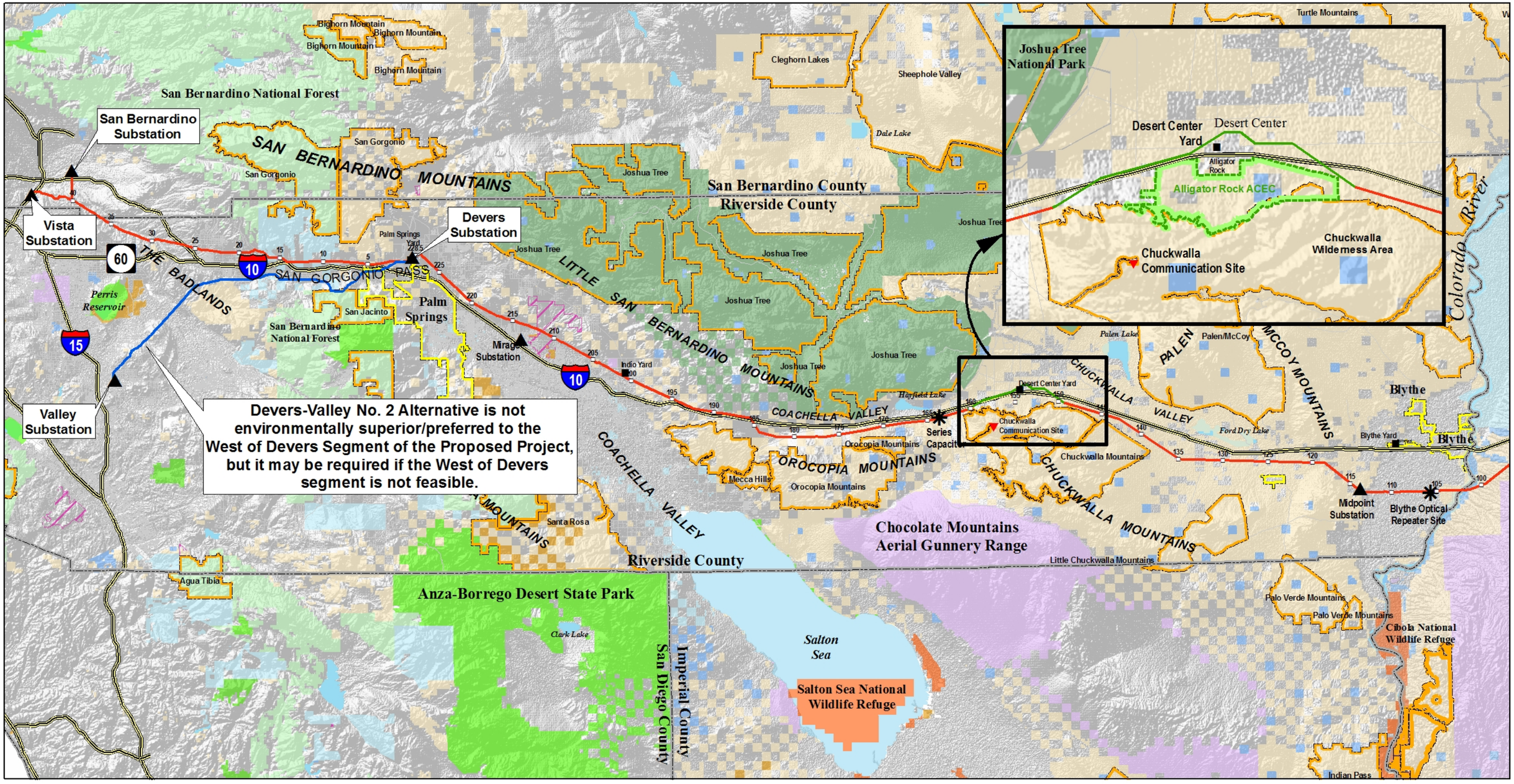
0 2.5 5 Miles

- Substations
- Series Capacitor
- Construction Yard
- Communications Site

Devers-Palo Verde No. 2 Transmission Line Project

Figure ES-4a

Environmentally Superior/ Preferred Alternative (Arizona)



PREPARED BY Aspen Environmental Group

Environmentally Superior/ Preferred Alternative

Mileposts

Devers-Valley No. 2 Alternative

Alligator Rock - North of Desert Center (a component of the Environmentally Superior/ Preferred Alternative)

0 10 20 Miles

OWNERSHIP/JURISDICTIONS (unincorporated areas)

- BLM
- Fish and Wildlife Service
- Indian Lands
- Military
- State Parks & Recreation
- National Park Service
- Nature Conservancy
- Forest Service
- State Fish and Game
- State
- Private
- Wilderness Areas

- Substations
- Series Capacitor
- Construction Yard
- Communications Site
- Incorporated Areas

Devers-Palo Verde No. 2 Transmission Line Project

Figure ES-4b

Environmentally Superior/ Preferred Alternative (California)