

**FINAL  
Environmental Impact Statement/  
Environmental Impact Report**

**San Luis  
Transmission  
Project**

**DOE/EIS-0496  
SCH# 2013112059**

**Executive Summary**



**Western Area Power Administration  
San Luis & Delta-Mendota Water Authority**

**March 2016**

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## Executive Summary

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### ES.1 Introduction

The Western Area Power Administration (Western), a power marketing administration within the U.S. Department of Energy (DOE), and the San Luis & Delta-Mendota Water Authority (Authority), a California joint powers agency, have prepared this Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) for the San Luis Transmission Project (SLTP or Proposed Project). In conformance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), this EIS/EIR is intended to inform decision makers, other agencies, and the public regarding the environmental and public safety effects that could result from construction, operation, maintenance, and decommissioning of the SLTP. Western is the federal lead agency under NEPA, and the Authority is the State lead agency under CEQA. The Bureau of Reclamation (Reclamation) is a NEPA Cooperating Agency. The California Department of Water Resources (DWR) is a CEQA Responsible Agency.

The Draft EIS/EIR, as revised in this document, comments received during the public comment period, and written responses collectively comprise the Final EIS/EIR. Where the Draft EIS/EIR has been revised, the text has been marked in ~~striketrough~~ for deletions and underline for additions. These revisions have been made in response to comments received on the Draft EIS/EIR, as presented in Appendix L. Portions of the Draft EIS/EIR were also revised for the purposes of clarifications, typographical corrections, and other editorial adjustments.

### ES.2 Overview of the Proposed Project

The SLTP would consist of:

- a new 500-kilovolt (kV) transmission line about 65 miles in length between the new Tracy East and Los Banos West Substations;
- a new 230-kV transmission line about 3 miles in length between the new Los Banos West Substation and Western's existing San Luis Substation;
- a new 230-kV transmission line about 20 miles in length between Western's existing San Luis Substation and Western's existing Dos Amigos Substation or a new 230-kV transmission line about 18 miles in length between the new Los Banos West Substation and Western's existing Dos Amigos Substation;
- an interconnection with the existing Western 500-kV Los Banos-Gates No. 3 transmission line just south of Pacific Gas & Electric's (PG&E) existing Los Banos Substation into the new Los Banos West Substation; and
- a new 70-kV transmission line about 7 miles in length between the existing San Luis and O'Neill Substations.

Western would construct, own, maintain, and operate the lines, which would be located mostly adjacent to existing transmission lines in Alameda, San Joaquin, Stanislaus, and Merced Counties in California.

Additional components of the SLTP would include new 230-kV line terminal bays at Western's San Luis and Dos Amigos Substations, as well as a new 230/70-kV transformer bank and interconnection facilities at the San Luis Substation.

The SLTP would also include ancillary facilities, such as communication facilities, improvements to existing access roads, new permanent access roads, and temporary access roads to facilitate construction activities. Western would acquire the necessary easements and fee land for the Proposed Project.

## **Operational Voltage Options**

The operational voltage needed for the Project is dependent on the participation of Duke American Transmission Company (DATC). If DATC declines to participate, one of the following operational voltage options may be selected by Western and the Authority.

- **500-kV Transmission Line operated at 230-kV.** This voltage option would consist of a 500-kV transmission line constructed between the Tracy and San Luis Substations. However, it would be operated at 230-kV. The proposed Tracy East and Los Banos West Substations would not be constructed.
- **230-kV Transmission Line.** This voltage option would consist of a 230-kV line constructed between the Tracy and San Luis Substations. The proposed Tracy East and Los Banos West Substations would not be constructed.

Depending on final operational needs, one of these operational voltage options would be implemented within the scope of the alternatives analyzed in this EIS/EIR.

## **ES.3 Purpose and Need and Project Objectives**

### **Federal Purpose and Need**

Reclamation entered into a contract with PG&E in 1965 for power transmission service between Western's Tracy Substation and Reclamation's San Luis Unit (SLU) facilities near Santa Nella, California and Los Banos, California. The contract provides for transmission and distribution service between the including the Gianelli Pump-Generating Plant, Dos Amigos Pumping Plant and the O'Neill Pump-Generating Plant for delivery of Central Valley Project (CVP) and the SLU including the Gianelli Pump-Generating Plant, Dos Amigos Pumping Plant, and the O'Neill Pump-Generating Plant, water supply to its federal water service contractors. The SLU is part of the CVP and is owned by the United States. On an annual basis, these SLU facilities pump up to 1.25 million acre-feet of federal water out of the California Aqueduct and the Delta-Mendota Canal into the San Luis Reservoir for later use, including irrigation supply to about 600,000 acres of farmlands located in western Fresno, Kings, and Merced Counties. The SLU is part of the CVP and is owned by the United States. However, the SLU is a Joint Use Facility (JUF) between Reclamation and DWR. DWR operates the JUF as provided in the 1961 Agreement between the United States of America and the Department of Water Resources of the State of California for the Construction and Operation of the Joint Use Facilities of the San Luis Unit and supplemented in 1972. Pursuant to this Agreement, DWR and Reclamation share the costs of construction, operation, and maintenance related to the SLU. DWR has operation and maintenance responsibility of the JUF including the substations necessary for the proposed SLTP.

As part of the original PG&E contract, the Federal Government paid PG&E \$2.6 million to provide 50 years of 230-kV transmission and distribution service to deliver federal power to and from Reclamation's Gianelli and Dos Amigos facilities the SLU. The existing transmission contract with PG&E expires on March 31, 2016, and PG&E has stated it will not renew the existing contract. Without the contract or a federal transmission line to serve the primary SLU facilities, the Federal Government will have to take transmission service under the California Independent System Operator (CAISO) Tariff between Tracy Substation and the SLU facilities using the same PG&E transmission and distribution lines that have served

the SLU for 50 years. Under the CAISO Tariff, the estimated cost increase to Reclamation for the first year is expected to be \$8 million. Reclamation's operating costs are paid by its water service contractors.

In anticipation of PG&E's contract expiring and the substantial increase in transmission costs associated with scheduling federal power to and from these facilities under the CAISO Tariff, Reclamation submitted a transmission service request to Western to consider various transmission service arrangements, including the construction of new federal transmission lines for Reclamation's continued delivery of federal water after the PG&E contract expires. Western responded to Reclamation's request for transmission service consistent with Western's Open Access Transmission Tariff (OATT) and existing laws. Reclamation, on behalf of its water contractors, is evaluating options to pump, store, convey, and deliver federal water via the SLU at reasonable costs. ~~The increase in costs incurred by Reclamation under the CAISO Tariff are so great that reasonable prudence requires the agencies to pursue and evaluate the proposed SLTP.~~

In October 2013, ~~an eligible Western transmission customer~~<sup>4</sup>DATC submitted a transmission service request in accordance with Western's OATT for transmission service within the same corridor as requested by Reclamation. Western is evaluating both requests jointly in order to determine if it can satisfy Reclamation's need and ~~the eligible customer~~DATC's request with a single project. This Project would require at least a single-circuit 500-kV transmission line between the Tracy and Los Banos areas. This EIS/EIR evaluates a 500-kV transmission line with an design voltage options to construct at 230-kV should ~~the eligible transmission customer~~DATC decide not to not participate. It is anticipated that ~~the eligible Western transmission customer~~DATC will decide whether to participate by spring 2016.

## Project Objectives

The Project objectives for the SLTP are to:

- Obtain durable, long-term, cost-certain, and efficient transmission delivery of CVP power to and from federal power generation sites to the major pumping stations of the SLU to reliably deliver water to Reclamation and the Authority's member agencies (federal water service contractors);
- Locate and install transmission facilities in a safe, efficient, and cost effective manner that meets Project needs while minimizing environmental impacts;
- Locate facilities to minimize the potential of environmental impacts resulting from damage by external sources;
- Maximize the use of existing transmission corridors and rights-of-way in order to minimize effects on previously undisturbed land and resources; and
- Obtain stable and reliable transmission that meets Project needs in a cost-effective and timely manner.

## ES.4 Summary of Public Involvement Activities

### Public Notification and Scoping Process

Western and the Authority held public open-house meetings to answer questions and receive comments on the scope of the environmental analysis for the SLTP. These meetings were held on January 8, 2014, in Tracy, California, and on January 9, 2014, in Santa Nella, California. The 60-day public scoping comment

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<sup>4</sup> ~~Pending its decision to participate in the Project, the identity of this customer is confidential. Details on the interconnection request are available at: <http://www.oasis.oati.com/wasn/index.html> (see Transmission Queue page for updates)~~

period began on November 22, 2013, when the Notice of Intent was published in the *Federal Register* and the Notice of Preparation was filed with the California State Clearinghouse. The 60-day public scoping comment period ended on January 21, 2014.

Western distributed notices to 75 local agencies, 8 state agencies, 6 federal agencies, 21 organizations, and 39 elected officials. Western also sent postcards announcing the public scoping meetings and comment period to all property owners within or adjacent to the Proposed Project or alternative routes, and published advertisements on the meetings and comment period in five local newspapers. The postcards and advertisements also provided an overview map of the Project area, a brief summary of the SLTP, how to provide scoping comments, and where to find additional information on the Proposed Project. Nine agencies, four organizations, and eight individuals submitted scoping comments.

Additionally, ~~two~~ three newsletters have been distributed to affected and interested landowners, organizations, and agencies. The first newsletter, distributed May 2014, announced the availability of the Scoping Report and the Alternatives Screening Report on the SLTP website.<sup>21</sup> The second newsletter, distributed February 2015, announced that a new alternative corridor (the Billy Wright Road Alternative) and two new proposed substations (the Tracy East and Los Banos West Substations) would be evaluated in the Draft EIS/EIR. It also announced the availability of an updated Alternatives Screening Report on the SLTP website. The third newsletter was distributed in August 2015. It announced the availability of the Draft EIS/EIR, described how to comment on the Draft EIS/EIR, and provided the dates, times, and locations of the Draft EIS/EIR public meetings.

## Agency Coordination and Native American Consultation

Western and the Authority ~~have~~ had several meetings with various agencies to discuss the proposed SLTP and consider their comments and concerns. The agencies include the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and the California Department of Parks and Recreation.

In a March 3, 2014 letter, Western contacted all Native American groups on the list provided by Native American Heritage Commission (NAHC). Western received a response from the California Valley Miwok Tribe. Western will continue to keep all of the Tribal contacts informed of any changes to the SLTP and will continue to be responsive to any future requests for consultation. The SLTP does not cross tribal reservations or Native American Trust territories.

## Areas of Controversy / Public Scoping Issues

Issues raised during the public scoping process are described in detail in the Scoping Report (available on the SLTP website), and are summarized below.

- **Air Quality.** Recommendations for air quality-related discussions to be included in the Draft EIS/EIR.
- **Coordination with Local Agencies.** Requests for appropriate coordination and consultation with affected local agencies.
- **Land Use Conflicts.** Concern regarding the potential for the proposed route to conflict with existing and proposed land uses (e.g., solar projects, residential developments, PG&E transmission lines and pipelines, and the Crow's Landing Airport).
- **Adequacy of Project Notices.** Concern regarding the adequacy and clarity of the Project Description presented in the Notice of Intent and Notice of Preparation.

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<sup>1,2</sup> <http://www.sltpeis-eir.com/>

- **Special-Status Species.** Concern regarding the potential effects of the Proposed Project on special-status species and supporting habitat.
- **Permitting.** Suggestions for permits that may be required for approval and implementation of the Proposed Project.
- **Alternative Routes.** Suggestions for alternative routes to minimize significant impacts including increasing the distance of the proposed route from adjacent residences and the avoidance of land parcels identified for proposed land use projects.
- **Property values.** Concern regarding a decrease of property value attributable to the presence of transmission lines.
- **Electromagnetic Fields (EMF).** Concern regarding the potential for health risks associated with EMF emitted from transmission lines.
- **Public Scoping Process.** Concern regarding the timeframe provided for public comment and the adequacy of information provided to the public.

## **Public Review of the Draft EIS/EIR**

The Notice of Availability (NOA) of the Draft EIS/EIR was published in the *Federal Register*, filed with the State Clearinghouse, and mailed to interested parties on July 17, 2015. The NOA included information on how to access the Draft EIS/EIR; the dates, times, and locations of the Draft EIS/EIR public meetings; and how to comment on the Draft EIS/EIR. Its distribution started a 45-day public comment period that ended on August 31, 2015.

Public hearings on the Draft EIS/EIR were held in Tracy, California, on August 10, 2015 and Los Banos, California, on August 11, 2015. These consisted of an open house where Project information was shared, followed by an opportunity to record verbal comments from the public. Notice of the public meetings was published in the Tracy Press and Los Banos Enterprise newspapers.

Four people provided verbal comments at the Los Banos meeting; no verbal comments were provided at the Tracy meeting. An additional 26 comment letters and emails were received during the 45-day public comment period (refer to Appendix L for a detailed list of commenters and copies of all comment correspondence).

## **ES.5 Design and Engineering Issues**

The exact locations and quantities of Project components (e.g., transmission structures, access roads, conductor pulling sites, and construction staging areas) cannot be determined until final Project design and engineering. For purposes of the EIS/EIR, it has been assumed that disturbances from transmission structures could occur anywhere within the preferred corridor. Other Project components may occur anywhere within the Project study area, which extends up to one mile from the corridors. Western's and DWR's standard construction practices, Project-specific environmental protection measures, and mitigation measures would be applied in the design of Project components. During the planning and implementation of the Project, additional environmental review, analysis, and technical studies may be necessary and will be conducted depending on site-specific conditions including potential environmental impacts within easements, including DWR easements that are not associated with the San Luis joint use facilities. If any Project components are sited outside of the geographic area considered in this EIS/EIR, additional surveys and consultation for biological and cultural resources and/or environmental review would be conducted prior to Project implementation.

Construction of the proposed Los Banos West Substation would result in the loss of up to 50 acres of the 150-acre Jasper Sears off-highway vehicle (OHV) Use Area. As stated in Section ES.6, this impact is considered significant and unavoidable. The exact size and location of the substation footprint cannot be determined until final Project design and engineering. Pursuant to the mitigation measures in this EIS/EIR (i.e., Mitigation Measures REC-1 and REC-2), Western, the Authority, and Reclamation, would coordinate closely with the California Department of Parks and Recreation (CDPR) to minimize impacts to the OHV Use Area. However, because the land is under lease to CDPR from Reclamation, actual implementation of the mitigation is not within the authority of the lead agencies (Western and the Authority). Reclamation and CDPR are in consultation to resolve this issue.

Existing JUF infrastructure or modifications thereto, all transmission work, communication system maintenance, facility outages, upgrade and replacement work, regulatory coordination, and maintenance of access roads will be conducted in accordance with the Agreement between the United States of America and the Department of Water Resources of the State of California for the Construction and Operation of the Joint-Use Facilities of the San Luis Unit (dated December 30, 1961).

## **ES.65 Impacts of the Proposed Project**

As required by CEQA Section 15126.2, this section presents the significant and unavoidable impacts of the Proposed Project. The Proposed Project would result in significant and unavoidable impacts (and contribute to cumulatively considerable impacts) to the following resource areas. Refer to Section ES.8-9 for a summary of all impacts of the Proposed Project.

- **Noise.** Construction would temporarily result in more than a 5-decibel increase intermittently at sensitive receptors near the Project, which would exceed local noise standards near residences throughout the Project area. This would be a temporary, short-term impact that would occur intermittently during construction activities.
- **Recreation.** Construction of the proposed Los Banos West Substation would result in conflicts with, physical alterations of, and decreased accessibility to the Jasper Sears ~~off-highway vehicle (OHV) Use Area~~ in the San Luis segment.
- **Land Use.** Construction of the proposed Los Banos West Substation would result in conflicts with the San Luis Reservoir State Recreation Area Resource Management Plan/General Plan as it pertains to the Jasper Sears OHV Use Area and conflicts with this established special use area in the San Luis segment.

## **ES.76 Alternatives to the Proposed Project**

The determination of whether to retain an alternative for analysis in the EIS/EIR was based, in part, on the following NEPA/CEQA criteria: (a) meeting the purpose and need and most project objectives, (b) reducing significant effects of the Proposed Project, and (c) being potentially feasible in terms of possible legal, regulatory, or technical constraints.

### **Alternatives Retained for Analysis in the EIS/EIR**

The EIS/EIR considers seven alternatives to the Proposed Project, including the No Action/No Project Alternative, as listed below. To facilitate a fair or equal comparison between the impacts of the alternatives and the Proposed Project, the Project area was divided at common points of the corridors into four segments (North, Central, San Luis, South).

## **No Action/No Project**

### **North Segment**

There are no alternative corridors in the North Segment.

### **Central Segment**

- Patterson Pass Road Alternative

### **San Luis Segment – 500-kV**

- Butts Road Alternative
- West of Cemetery Alternative

### **San Luis Segment – 70-kV**

- West of O’Neill Forebay 70-kV Alternative

### **South Segment**

- San Luis to Dos Amigos Alternative
- Billy Wright Road Alternative

## **Alternatives Considered and Eliminated**

An additional seven alternatives were considered in a screening process and eliminated from further review, as documented in the Alternatives Screening Report (available on the SLTP website).

## **ES.87 ~~Summary of Draft EIS/EIR Conclusions: Environmentally Preferred Alternative~~**

The Authority has identified the Environmentally Superior Alternative, as required by CEQA Guidelines 15126.6(e)2. In this EIS/EIR, it is called the Environmentally Preferred Alternative. The following section summarizes the results of the alternatives comparison for each Project segment and identifies the Environmentally Preferred Alternative. Western’s Agency Preferred Alternative is also identified in this EIS/EIR. Western’s Agency Preferred Alternative will be identified in the Final EIS/EIR following analysis of public comments on the Draft EIS/EIR and further internal review of the Draft EIS/EIR.

## **Environmentally Preferred Alternative**

### **No Action/No Project Alternative**

Under the No Action/No Project Alternative, construction of the San Luis Transmission Project would not occur. Western would arrange for transmission service for the SLU from the CAISO using existing electric infrastructure. As there would be no adverse direct, indirect, or cumulative environmental impacts under this alternative, it is the environmentally preferred alternative.

However, Reclamation’s estimated transmission costs under the No Action/No Project Alternative (i.e., the CAISO Tariff) would increase by more than \$8 million per year. As detailed in Section 1.2 and Appendix K, which address Reclamation’s estimated transmission costs under the No Action/No Project Alternative (i.e., the CAISO Tariff) over a 50-year period, the No Action/No Project Alternative is not cost effective and involves substantial cost uncertainties. Further, the No Action/No Project Alternative would not achieve the purpose and need or basic Project objectives.



## **Environmentally Preferred Action Alternative**

CEQA Guidelines Section 15126.6(e)(2) requires that if the environmentally preferred alternative is the No Action/No Project Alternative, an EIR shall identify the environmentally preferred alternative among the other (i.e., action) alternatives. The corridor segments that comprise the environmentally preferred action alternative are presented below.

### ***North Segment***

The Proposed Project is the environmentally preferred corridor in this segment as there are no alternatives.

### ***Central Segment***

The Patterson Pass Road Alternative is the environmentally preferred corridor in this segment because it is 1,000 feet farther from residences than the Proposed Project. Therefore, it would have fewer noise and visual resources impacts. Agricultural impacts would also be slightly less than the Proposed Project in the Central Segment.

### ***San Luis Segment – 500-kV***

The Proposed Project is the environmentally preferred corridor in this segment because it is the shortest route with the least ground disturbance. Therefore, it would result in fewer impacts to air quality, geology, paleontological resources, and water resources. The Proposed Project is furthest from the San Joaquin Valley National Cemetery and would avoid construction noise and visual impacts to this sensitive resource. Additionally, it would impact the least amount of habitat for the federally and State endangered and State fully protected blunt-nosed leopard lizard.

### ***San Luis Segment 70-kV***

In the San Luis Segment (70-kV), the Proposed Project is the environmentally preferred corridor. The Proposed Project and West of O'Neill Forebay 70-kV Alternative are the same length, have the same length of new access roads, and have the same number of support structures. Therefore, impacts are similar and there is no preference between corridors for most issue areas. However, the Proposed Project would result in fewer impacts to habitat for federally and State-listed species including San Joaquin kit fox, California tiger salamander, and blunt-nosed leopard lizard. Additionally, the Proposed Project would be farther from the San Joaquin Valley National Cemetery, thereby resulting in fewer land use, noise, and visual resources impacts than the West of O'Neill Forebay 70-kV Alternative.

### ***South Segment***

In the South Segment, the San Luis to Dos Amigos Alternative is the environmentally preferred corridor. The Proposed Project and the San Luis to Dos Amigos Alternative are adjacent, are the same length, have the same length of new access roads, and have the same number of support structures. Therefore, impacts are similar and there is no preference between corridors for most issue areas. However, the San Luis to Dos Amigos Alternative would have slightly fewer impacts to agricultural land. It would also be farther from more residences than the Proposed Project, thereby resulting in less construction noise impacts.

In summary, the Environmentally Preferred Alternative is composed of:

- North Segment – Proposed Project
- Central Segment – Patterson Pass Road Alternative

- San Luis Segment (500-kV) – Proposed Project
- San Luis Segment (70-kV) – Proposed Project
- South Segment – San Luis to Dos Amigos Alternative

### **No Action/No Project Alternative**

Under the No Action/No Project Alternative, construction of the San Luis Transmission Project would not occur. Western would arrange for transmission service for the SLU from the CAISO using existing electric infrastructure. As there would be no adverse direct, indirect, or cumulative environmental impacts under this alternative, it would be preferable to the Environmentally Preferred Corridor Alternative. However, Reclamation's estimated transmission costs under the No Action/No Project Alternative (i.e., the CAISO Tariff) would increase by more than \$8 million per year. Reclamation's estimated transmission costs under the No Action/No Project Alternative (i.e., the CAISO Tariff) would be so expensive as to render this alternative infeasible. Further, the No Action/No Project Alternative is considered infeasible because it would not achieve the purpose and need or basic project objectives.

### **Agency Preferred Alternative**

Determining the Agency Preferred Alternative requires that Western balance many factors with the Project's purpose and need. It is the alternative that Western believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors. As described above, the No Action/No Project Alternative is the Environmentally Preferred Alternative because it would avoid any adverse direct, indirect, or cumulative environmental impacts; however, it would not achieve the purpose and need or basic Project objectives. The Environmentally Preferred Action Alternative is composed of several segments, as listed in the preceding section. After analysis of public comments and further internal review of the EIS/EIR, Western has determined that its Agency Preferred Alternative is the same as the Environmentally Preferred Action Alternative in the Northern and San Luis (500-kV and 70-kV) segments.

In the Central Segment, the Proposed Project is the agency preferred corridor. Although it would be closer to residences and have sight increases in the associated visual and temporary noise impacts, it would have less of an impact on biological resources. In particular, it would impact fewer special-status plant species. Additionally, it would require fewer crossings of the existing high voltage transmission lines, which would increase reliability by providing more space between circuits.

In the Southern Segment, the Billy Wright Road Alternative is the agency preferred corridor. Although it would have greater recreation impacts by crossing the Path of the Padres Trail and slightly greater soil disturbance due to its longer length, it would avoid conflicts with the Wright Solar Park. When the Notice of Preparation and Notice of Intent for this EIS/EIR were published in November 2013, which set the baseline for analysis of environmental impacts, the Wright Solar Park was still early in its entitlement phase (the Project's NOP was issued in October 2013). Western is aware that the Project is now fully permitted and expected to begin construction in 2016.

In summary, the Agency Preferred Alternative is composed of:

- North Segment – Proposed Project
- Central Segment – Proposed Project
- San Luis Segment (500-kV) – Proposed Project

- San Luis Segment (70-kV) – Proposed Project
- South Segment – Billy Wright Road Alternative

## ES.98 Impact Summary Tables

Levels of significance in this EIS/EIR are defined by classification as follows:

- Significant; cannot be mitigated to a level that is less than significant
- Significant; can be mitigated to a level that is less than significant
- Less than significant; no mitigation required

Under NEPA, beneficial impacts of a proposed action are also relevant considerations in the environmental analysis.

The tables on the following pages summarize all significant impacts of the Proposed Project. In addition, there are several impacts that were determined to be less than significant and would not require mitigation.

**Table ES-1. Significant and Unmitigable Impacts of the Proposed Project**

Impact	Mitigation Measures (if any)
Impact NOISE-1 – Result in a substantial temporary or periodic increase in ambient noise levels (above 5 dBA Leq) at sensitive receptor locations above levels existing without the Project	NOISE-1 – Provide construction notification. NOISE-2 – Implement Best Management Practices for construction noise.
Impact NOISE-3 – Result in noise levels that exceed local or federal noise regulations or guidelines	NOISE-1 – Provide construction notification. NOISE-2 – Implement Best Management Practices for construction noise.
Impact REC-1 – Conflict with established, designated, or planned recreation areas or activities	NOISE-1 – Provide construction notification. NOISE-2 – Implement Best Management Practices for construction noise. AQ-1 – Reduce or offset construction equipment emissions. REC-1 – Coordinate with local agencies to identify tower locations. REC-2 – Modify existing facilities within and relocate, if necessary, the entrance to the Jasper Sears OHV Use Area.
Impact REC-2 – Result in changes that alter or otherwise physically affect established, designated, or planned recreation areas or activities	REC-2 – Modify existing facilities within and relocate, if necessary, the entrance to the Jasper Sears OHV Use Area.
Impact REC-3 – Decrease accessibility to areas established, designated, or planned for recreation	REC-2 – Modify existing facilities within and relocate, if necessary, the entrance to the Jasper Sears OHV Use Area.
Impact LU-4 – Conflict with State or federally established, designated or reasonably foreseeable planned special use areas (e.g., recreation, wildlife management area, game management areas, waterfowl production areas, scientific and natural areas, wilderness areas, areas of critical environmental concern, etc.)	<u>REC-2 – Modify existing facilities within and relocate, if necessary, the entrance to the Jasper Sears OHV Use Area.</u>

**Table ES-2. Significant but Mitigable Impacts of the Proposed Project**

Impact	Mitigation Measures
Impact AQ-1 – Violate ambient federal and/or State air quality or emissions standards applicable to the study area, or increase the frequency of severity of any existing violation of State and/or federal ambient air quality standard	AQ-1 – Reduce or offset construction equipment emissions.
Impact AQ-2 – Expose sensitive receptors to detrimental pollution concentrations	AQ-1 – Reduce or offset construction equipment emissions.
Impact AQ-3 – Contribute to a collective or combined air quality effect, including existing and foreseeable other projects, that leads to violation of air quality standards, even if the individual effect of the project/activity is relatively minor compared with other sources	AQ-1 – Reduce or offset construction equipment emissions.
Impact AQ-6 – Emissions exceed conformity de minimis thresholds set by the applicable Air District	AQ-1 – Reduce or offset construction equipment emissions.
Impact BIO-1 – Adversely affect a listed endangered, threatened or proposed species or designated critical habitat, or a non-listed special-status plant or animal species either directly or through habitat loss or modification	BIO-1 – Conduct surveys for special-status plants and sensitive habitats. BIO-2 – Avoidance and minimization measures for special-status plants and vegetation communities. BIO-3 – Provide compensatory mitigation for impacts to special-status plants. BIO-4 – Provide compensatory mitigation for impacts to federally listed branchiopod habitat. BIO-5 – Avoidance and minimization measures for valley elderberry longhorn beetle. BIO-6 – Provide compensatory mitigation for impacts to elderberry plants. BIO-7 – Avoidance and minimization measures for Alameda whipsnake. BIO-8 – Avoidance and minimization measures for blunt-nosed leopard lizard. BIO-9 – Avoidance and minimization measures for special-status reptiles. BIO-10 – Avoidance and minimization measures for giant garter snake. BIO-11 – Avoidance and minimization measures for western pond turtle. BIO-12 – Provide compensatory mitigation for impacts to special-status reptiles. BIO-13 – Avoidance and minimization measures for California red-legged frog. BIO-14 – Avoidance and minimization measures for California tiger salamander and western spadefoot. BIO-15 – Provide compensatory mitigation for impacts to listed amphibians. BIO-16 – Avoidance and minimization measures for burrowing owl. BIO-17 – Provide compensatory mitigation for impacts to occupied burrowing owl habitat. BIO-18 – Avoidance and minimization measures for California fully protected birds. BIO-19 – Avoidance and minimization measures for least Bell's vireo. BIO-20 – Avoidance and minimization measures for Swainson's hawk. BIO-21 – Provide compensatory mitigation for impacts to Swainson's hawk foraging habitat. BIO-22 – Avoidance and minimization measures for tricolored blackbird. BIO-23 – Avoidance and minimization measures for other special-status and native birds. BIO-24 – Avoidance and minimization measures for American badger. BIO-25 – Avoidance and minimization measures for special-status bats. BIO-26 – Avoidance and minimization measures for special-status kangaroo rats. BIO-27 – Avoidance and minimization measures for San Joaquin kit fox. BIO-28 – Provide compensatory mitigation for impacts to San Joaquin kit fox.

**Table ES-2. Significant but Mitigable Impacts of the Proposed Project**

Impact	Mitigation Measures
Impact BIO-2 – Adversely and substantially affect native plant communities, including riparian areas or other sensitive communities	BIO-1 – Conduct surveys for special-status plants and sensitive habitats. BIO-2 – Avoidance and minimization measures for special-status plants and vegetation communities. BIO-29 – Avoidance and minimization measures for vernal pool and seasonal wetland habitats. BIO-30 – Avoidance and minimization measures for sensitive wetland habitats. BIO-31 – Provide compensatory mitigation for impacts to sensitive plant communities.
Impact BIO-4 – Have substantial adverse effects on wetlands and Waters of the U.S. and State	BIO-29 – Avoidance and minimization measures for vernal pool and seasonal wetland habitats. BIO-30 – Avoidance and minimization measures for sensitive wetland habitats. BIO-32 – Provide compensatory mitigation for impacts to wetlands and waters.
<u>Impact BIO-6 – Conflict with the provisions of an adopted local, regional, State, or federal habitat conservation plan</u>	<u>BIO-2 – Avoidance and minimization measures for special-status plants and vegetation communities.</u> <u>BIO-28 – Provide compensatory mitigation for impacts to San Joaquin kit fox.</u> <u>BIO-31 – Provide compensatory mitigation for impacts to sensitive plant communities.</u> <u>BIO-33 – Minimization measures for conservation easements.</u>
Impact CUL-1 – Cause damage, degradation to, or loss of a unique archaeological resource as defined by CEQA or a resource of archaeological, tribal, or historical value that is listed, or eligible for listing, on the National Register or California Register	CUL-1 – Prepare and implement Archaeological Resource Management and Treatment Plan for unique archaeological resources.
Impact CUL-7 – Disturb any human remains, including those interred outside of formal cemeteries	CUL-2 – Treatment of inadvertent discovery of human remains.
Impact GEO-1 – Expose people or structures to potential substantial adverse effects due to slope instability, effects of earthquake (fault rupture, ground shaking, liquefaction, landslide), slumps, rockfalls, or adverse soil conditions such as compressible, expansive, or corrosive soils	GEO-1 – Conduct geotechnical investigations and implement Project design recommendations.
Impact GEO-5 – Place a structure on unstable soils, which would result in exposure to landslide, lateral spreading, subsidence, liquefaction, or collapse	GEO-1 – Conduct geotechnical investigations and implement Project design recommendations.
<u>Impact LU-4 – Conflict with State or federally established, designated, or reasonably foreseeable planned special use areas (e.g., recreation, wildlife management area, game management areas, waterfowl production areas, scientific and natural areas, wilderness areas, areas of critical environmental concern, etc.).</u>	<u>LU-1 – Minimize impacts within conservation easements and/or amend conservation easements.</u>
Impact PALEO-1 – Result in the loss of or inaccessibility to scientifically important paleontological resources	PALEO-1 – Conduct pre-construction survey. PALEO-2 – Document all finds. PALEO-3 – Conduct Worker’s Environmental Awareness Training. PALEO-4 – Conduct paleontological mitigation monitoring. PALEO-5 – Procedures for fossil preparation, curation, and reporting.

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**Table ES-2. Significant but Mitigable Impacts of the Proposed Project**

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Impact	Mitigation Measures
Impact H&S-3 – Inflict serious injuries to workers, visitors to the area, or area land users.	H&S-1 – Prepare a fire plan.
Impact SE-4 – Permanent displacement of existing residences or businesses	SE-1 – Acquire land rights.
Impact TRAFFIC-2 – Cause delays on a primary transportation corridor	TRAFFIC-1 – Prepare and submit Traffic Control Plans.

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