# Draft
# Environmental Impact Statement / Environmental Impact Report for the Edwards AFB Solar Project

Executive Summary

**SCH# 2017111079**

***Edwards AFB Solar Project***
**(PP18136)**

Kern County
Planning and Natural Resources Department
Bakersfield, California

Department of the Air Force
Headquarters 412th Test Wing (AFMC)
Edwards Air Force Base California

June 2019

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Abstract: The Air Force Proposed Action is to lease land to a developer for the construction, operation, and maintenance of a solar photovoltaic (PV) renewable energy project (proposed project or Proposed Action) at Edwards AFB. The final scale of the Proposed Action is anticipated to be greater than 100 MW but not more than 750 MW, with the generated energy distributed to investor owned utilities, municipalities, other energy off-takers and/or Edwards AFB. The construction scale of such a proposed project would require a lease and development of up to 4,000 acres of non-excess land at Edwards AFB.

## PRIVACY ADVISORY

This Draft EIS is provided for public comment in accordance with the National Environmental Policy Act (NEPA), the President's Council on Environmental Quality (CEQ) NEPA Regulations (40 CFR §§1500-1508), and 32 CFR §989, Environmental Impact Analysis Process (EIAP).

The EIAP provides an opportunity for public input on Air Force decision-making, allows the public to offer inputs on alternative ways for the Air Force to accomplish what it is proposing, and solicits comments on the Air Force's analysis of environmental effects.

Public commenting allows the Air Force to make better, informed decisions.

Letters or other written or oral comments provided may be published in the EIS. As required by law, comments provided will be addressed in the EIS and made available to the public. Providing personal information is voluntary. Any personal information provided will be used only to identify your desire to make a statement during the public comment portion of any public meetings or hearings or to fulfill requests for copies of the EIS or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the EIS. However, only the names of the individuals making comments and specific comments will be disclosed. Personal home addresses and phone numbers will not be published in the Final EIS.

# TABLE OF CONTENTS

## Edwards AFB Solar Project



**List of Figures**



**List of Tables**

# EXECUTIVE SUMMARY

## ES.1 Introduction

This Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) is a joint document published by the U.S. Air Force (Air Force, or USAF) and the County of Kern, California (County). The Air Force is the lead agency pursuant to the National Environmental Policy Act (NEPA). The County is a cooperating agency pursuant to 40 Code of Federal Regulations (CFR) Section 1501.6 and the California Environmental Quality Act (CEQA) lead agency pursuant to Section 15051 of the guidelines for implementing the CEQA. This document provides information needed by the Air Force and County to make a determination on whether or not to implement a solar project on the 4,000-acre Edwards Air Force Base (AFB) property and on the generation tie (gen-tie) line approximately 16 miles in length. This EIS/EIR provides information needed by the USAF and County to make a determination on whether or not to implement a solar project on the 4,000-acre Edwards AFB property (the Proposed Action). This EIS/EIR analysis evaluates at a project level the impacts of the Edwards AFB Solar Project (herein identified as the proposed project or Proposed Action).

The Air Force Proposed Action is to lease land to a developer for the construction, operation, and maintenance of a solar photovoltaic (PV) renewable energy project (proposed project or Proposed Action) at Edwards AFB. The final scale of the Proposed Action is anticipated to be greater than 100 megawatts (MW) but not more than 750 MW, with the generated energy distributed to investor owned utilities, municipalities, other energy off-takers and/or Edwards AFB. The construction scale of such a proposed project would require a lease and development of up to 4,000 acres of non-excess land at Edwards AFB.

The proposed solar facility would be located on Edwards AFB, approximately 6 miles northeast of the community of Rosamond and 6 miles south of Mojave, in southeastern Kern County, California (**Figure ES-1**).

Therefore, pursuant to the Air Force's Environmental Impact Analysis Process (EIAP) regulation, 32 CFR Part 989., which implements the NEPA process, and the state's CEQA guidelines (Public Resources Code Section 2100 et seq and California Code of regulations, Title 14, Section 15000 et seq), the Air Force and County are preparing this EIS/EIR to inform the public and other interested entities of the Proposed Action and alternatives and seek their comments. This EIS/EIR process is intended to provide opportunties for public involvement to better assess the Proposed Action's and alternatives' impacts to the human and natural environment. The resulting information will be considered by the Air Force to achieve a Final EIS/EIR to allow informed decision-making on whether or how to proceed with the Proposed Action and alternatives. Additionally, the County will consider the information in its determination of whether to authorize the franchise agreement. Finally, this documented information may also be considered by other governmental or regulatory agencies associated with any required consultations and/or permits for this Proposed Action and alternatives.

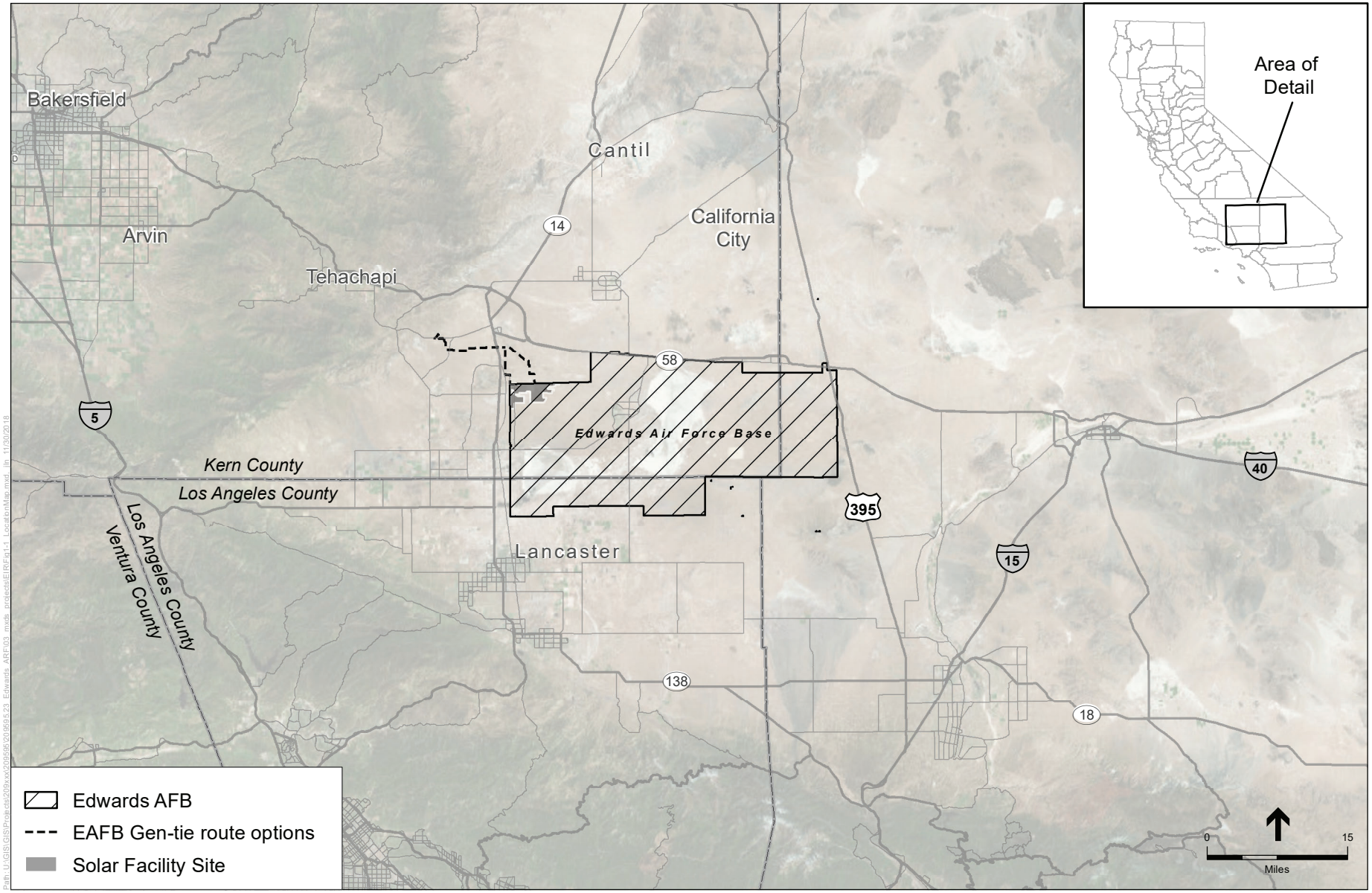


**Figure ES-1: PROJECT VICINITY**

# ES.2 Background

The mission of the Air Force is to fly, fight, and win in air, space and cyberspace. The 412th Test Wing is the host wing for Edwards AFB, California. The 412th Test Wing plans, conducts, analyzes, and reports on all flight and ground testing of aircraft, weapons systems, software, and components as well as modeling and simulation for the Air Force. The wing oversees day-to-day base operations and provides support for over 10,000 military, federal civilian, and contract personnel assigned to Edwards AFB.

In 2007 the Air Force Real Property Agency (AFRPA) now known as Air Force Civil Engineer Center/Installations Directorate (AFCEC/CI) completed a comprehensive analysis of the available lands on Air Force bases and their potential to support renewable energy development through the Enhanced Use Lease (EUL) program (*Renewable Energy Enhanced Use Lease Opportunity Summary Report*; AFRPA, 2007). The EUL program allows the Air Force to lease underutilized, non-excess lands to a third party that would generate monetary or in-kind consideration to the Air Force while also optimizing the value and utility of these lands under authority granted by 10 U.S. Code (USC) Section 2667. The Air Force may lease non-excess land to third parties under specified conditions for the fair market value of the leasehold interest. Results of the 2007 analysis showed that Edwards AFB possessed considerable acreage of non-excess Air Force property that could be more fully utilized through the EUL program. The study found that approximately 6,000 acres of land in the northwest corner of Edwards AFB was suitable for renewable energy development, and had high potential and a market to support a solar energy project (AFRPA, 2007). The report concluded that development of renewable solar energy at Edwards AFB would support the Department of Defense (DoD) and Air Force renewable energy goals and achieve other value that would support base operations and maintenance projects.

In 2011, SunEdison LLC proposed development of the Oro Verde Solar Project on the approximately 6,000-acre EUL property site in the same project area currently proposed in this EIS for the Edwards AFB Solar Project. SunEdison submitted development applications to the Air Force and County and conducted several technical environmental analyses to support those applications. The Air Force and County initiated NEPA and CEQA scoping processes in May 2013. Public scoping meetings were conducted in June 2013. In late 2014, SunEdison LLC stopped development of the project.

Upon termination of the agreement with SunEdison, LLC, the Air Force did not have an agreement in place with an energy developer and therefore revised the environmental impact analysis for the project from a site-specific analysis to a broader programmatic level of analysis to support future project planning. In June 2016, the Air Force released an updated Notice of Intent to describe this change.

In December 2016, the Air Force released a new Request for Qualifications for solar development through the EUL program. In 2017, private offerors submitted proposals to Edwards AFB to construct, operate, and maintain a utility-scale solar PV energy-generating facility. Edwards AFB property would be developed under the terms of a site development lease on up to 4,000 acres of non-excess real property under the control of the Secretary of the Air Force. A developer was selected by the Air Force and filed an application with the County for a franchise agreement for

routing a gen-tie transmission line from the proposed solar facility to the SCE Windhub Substation and/or the privately owned Westwind Substation.

In November 2017, the Air Force published a new Notice of Intent to prepare a project-level EIS/EIR to once again propose and evaluate the environmental impacts of a specific project. The solar facility proposed under the current Proposed Action has the same general design and components as the former Oro Verde Solar Project proposed in 2013, and the proposed solar array continues to be sited around sensitive environmental features to reduce impacts. The gen-tie route options associated with the Proposed Action follow different alignments than those proposed for the former Oro Verde Solar Project. Because existing conditions at the site and immediately surrounding areas have not changed substantially since 2013, several of the technical environmental analyses that were prepared for the Oro Verde Solar Project have been used in the evaluation of environmental impacts of the Proposed Action. As described in further detail in Chapter 3, *Environmental Setting and Environmental Consequences*, where appropriate, additional and/or updated data has been provided to verify the applicability of the former analyses to the current Proposed Action. Additionally, new technical analyses have been conducted for the Proposed Action gen-tie alignment options.

# ES.3 Purpose and Need

## ES.3.1 NEPA

The purpose of the Proposed Action is to meet Air Force objectives to optimize the value of non-excess lands at Edwards AFB by leasing property for renewable energy development in accordance with 10 USC Section 2667 and to promote the efficient and economical use of real property assets at Edwards AFB in accordance with Executive Order (EO) 13327, Federal Real Property Asset Management. Pursuing an EUL renewable energy development would support the Air Force's requirements to meet federal renewable energy mandates while supporting efforts to achieve DoD and Air Force goals for renewable energy generation on DoD lands to enhance energy conservation, availability, and efficiencies and also reduce greenhouse gas (GHG) levels. Edwards AFB identified several thousand acres of non-excess lands it could lease at fair market value that would achieve a higher and better land use through development of a renewable solar energy project.

DoD leasing tools such as 10 USC Section 2667, *Leases: Non-Excess Property of Military Departments and Defense Agencies*, allow the Air Force, through its EUL program, to lease non-excess real property for terms that promote the national defense or are in the public interest. In seeking solar energy development, Edwards AFB is also pursuing objectives outlined in the February 14, 2007, Department of the Air Force memorandum titled *Pursuing "Value-Based" Transactions Involving Air Force Real Property Assets*. This memorandum defines organizational responsibilities for Air Force organizations to optimize the value of real property assets using authorized tools such as the EUL program.

Additionally, the Air Force has continued to develop and refine its energy program and goals for increased energy efficiency and renewable energy production on its bases. On January 6, 2017, the Air Force released their Energy Flight Plan, 2017–2036. Goals within the energy strategy include monetizing non-excess assets such as land in return for consideration that advances energy

resiliency objectives. Development of the proposed project will help the Air Force to meet the goal of optimizing the value of non-excess property while supporting Air Force energy goals. The Air Force is also working to achieve reductions of GHG emissions through energy conservation, increased energy efficiencies of its facilities, and increased consumption of its energy needs from renewable energy sources. Implementation of the Proposed Action would minimize global GHG emissions by producing energy from renewable, non-carbon-based sources instead of promoting the consumption of energy derived from fossil fuels. The proposal of leasing Air Force land for development of the Proposed Action would produce a new renewable energy source beneficial to the state and the public and would support the achievement of established federal, DoD, and Air Force energy mandates and goals.

Currently, Edwards AFB facilities must be renovated, or in some cases outdated facilities may need to be demolished in order to reduce energy consumption and increase energy efficiency in accordance with 10 USC Section 2911. Lease consideration received in return for the fair market value of leased land would additionally provide Edwards AFB with the ability to implement installation projects to support its own sustainable energy efficiencies, conservation, and reduced GHG emissions goals. In accordance with a policy memorandum issued from the Undersecretary of Defense (Installations and Environment), at least 50 percent of the lease consideration generated from the EUL would be used for improving energy conservation (OSD, November 2012). Therefore, development of the Proposed Action on land leased by Edwards AFB would support successful achievement of its sustainable renewable energy goals while also optimizing the use of non-excess Air Force property in a manner consistent with national defense and public interests.

The Air Force need includes meeting the following objectives:

- Evaluate renewable energy projects on non-excess Air Force real property that would promote the efficient and economic use of federal real property under EO 13327, Federal Real Property Management and Air Force policy guidance (Air Force Policy Memorandum, February, 2007).
- Support attainment of federal, DoD, and Air Force energy and facilities mandates and goals including 10 USC Section 2911 and the Energy Flight Plan 2017-2036 (Air Force, January 2017) supporting utility-scale projects that increase renewable energy capacity and its distribution.

## ES.3.2 CEQA

As a cooperating agency, the County's purpose is to ensure the Proposed Action or alternatives are implemented in a manner consistent with the County's General Plan and Mojave Specific Plan, Soledad Mountain-Elephant Butte Specific Plan, West Edwards Road Settlement Specific Plan, and the Actis Interim Rural Community Plan. These plans prescribe land use designations and transportation plans in the area potentially affected by the Proposed Action, and are implemented through standards described within the Kern County Zoning Ordinance. The County is also responsible for regulating public utilities within public rights-of-way (ROWs) through the approval of franchise agreements. Franchise agreements are discretionary actions, and as such are required to comply with CEQA. The franchise agreement would permit the construction of portions of the gen-tie line within public and private ROW between the proposed Edwards AFB leased site to the

point of interconnection (off Edwards AFB) of the generated renewable energy or power that is managed by public utilities under California Public Utilities Commission (CPUC) regulations.

# ES.4 Project Objectives

CEQA requires a statement of project specific objectives (Section 15124 of the CEQA Guidelines).

The following are the objectives for the Proposed Action:

- Establish a solar PV generating facility greater than 100 MW in order to assist the state of California in achieving the Renewable Portfolio Standard (RPS) for 2030, by providing a significant new source of renewable energy (California State Assembly Bill [AB] 32, Senate Bill [SB] 1078, SB 107, SB 350, and SB 2).
- Supply clean, safe, renewable energy.
- Produce and transmit electricity at a competitive cost and in a manner that is eligible for commercial financing.
- Use technology that is available, proven, efficient, easily maintained, recyclable, and environmentally sound.
- Support the economic development of Kern County, Los Angeles County, and the State of California.
- Enhance existing electrical distribution infrastructure and provide greater support to existing and future customer loads.
- Minimize environmental effects by:
    - Using existing electrical distribution facilities, ROW, roads, and other existing infrastructure, where practicable
    - Minimizing impacts on threatened and/or endangered species
    - Minimizing water use; and
    - Reducing GHG emissions.
- Advance Department of Defense energy resilience and security goals by optimizing the value of under-utilized Air Force real property assets consistent with Department of Defense Instruction 4170.11, Installation Energy Management and the Air Force Energy Flight Plan, 2017–2036.

# ES.5 Proposed Action and Alternatives

## ES.5.1 Comparison of Alternatives

Each of the following alternatives (except Alternative D) is described in detail in Chapters 2 and 4. Alternative D is not included in Chapter 2 because it not considered to be a feasible NEPA Alternative for meeting the Purpose and Need of the Air Force but Alternative D was retained for analysis as a CEQA Alternative and is described in Chapter 4.

**Alternative A: Proposed Action (4,000-Acre EUL).** The Proposed Action, or the Air Force Preferred Alternative, would consist of the construction, operation, and decommissioning of a PV facility of greater than 100 MW of energy on up to a maximum of 4,000 acres of undeveloped, non-excess real property on the project site in the northwest corner of Edwards AFB. The Proposed Action would also consist of the construction of an associated gen-tie line approximately 16 miles in length (see **Figure ES-2**). The site plan for this alternative is shown on **Figure ES-3**.

**Alternative B: Reduced Project (1,500-Acre EUL).** This alternative would consist of the construction, operation, and decommissioning of a utility-scale PV solar facility on up to a maximum of 1,500 acres of non-excess real property located within the project site. Alternative B would involve construction using the same technology and components described for Alternative A. This alternative would use the same gen-tie line route proposed in Alternative A (see Figure ES-2) The reduced project alternative would require less acreage and therefore reduce all construction-related ground disturbance required to support the full project alternative described in Alternative A. The site plan for this alternative can be found in **Figure ES-4**.

**Alternative C: No Action/No Project.** Under Alternative C, the proposed EUL action and solar array development would not occur. This alternative would not include any development on the project site. Base operations at Edwards AFB would continue without the benefit of the EUL or lease consideration. Non-excess lands would not be utilized. Project-related reductions in GHG emissions would not occur, nor would the Air Force assist the County or state of California in attainment of RPS. This alternative would avoid all significant impacts. However, it would not meet the Purpose and Need of the Air Force. The No Action/No Project alternative serves as a baseline from which to evaluate environmental impacts of the alternatives under NEPA.

**Alternative D: No Ground-Mounted Utility-Solar Development – Distributed Commercial and Industrial Rooftop Solar Only.** This alternative would consist of the construction of the same amount of PV solar electricity as the proposed project. Rather than in the project site boundary, PV solar panels would be distributed on rooftops throughout the region. This alternative would avoid a EUL, Conditional Use Permit (CUP) and franchise agreement for the project site, but may require other entitlements (such as a CUP or variance) on other sites. As compared to Alternative A, this alternative would avoid direct significant impacts to aesthetics, air quality, and cultural resources. It would potentially reduce construction related impacts on biological resources, water use, and traffic.

## ES.5.2 Lead Agency Preferred Alternative

Under NEPA, the "preferred alternative" is a preliminary indication of the lead agency's preference of action among the Proposed Action and alternatives. A NEPA lead agency may select a preferred alternative for a variety of reasons, including the agency's priorities, in addition to the environmental considerations discussed in the EIS. In accordance with NEPA (40 CFR 1502.14(e)), the Air Force preliminarily has identified Alternative A, the Proposed Action, as the preferred alternative.

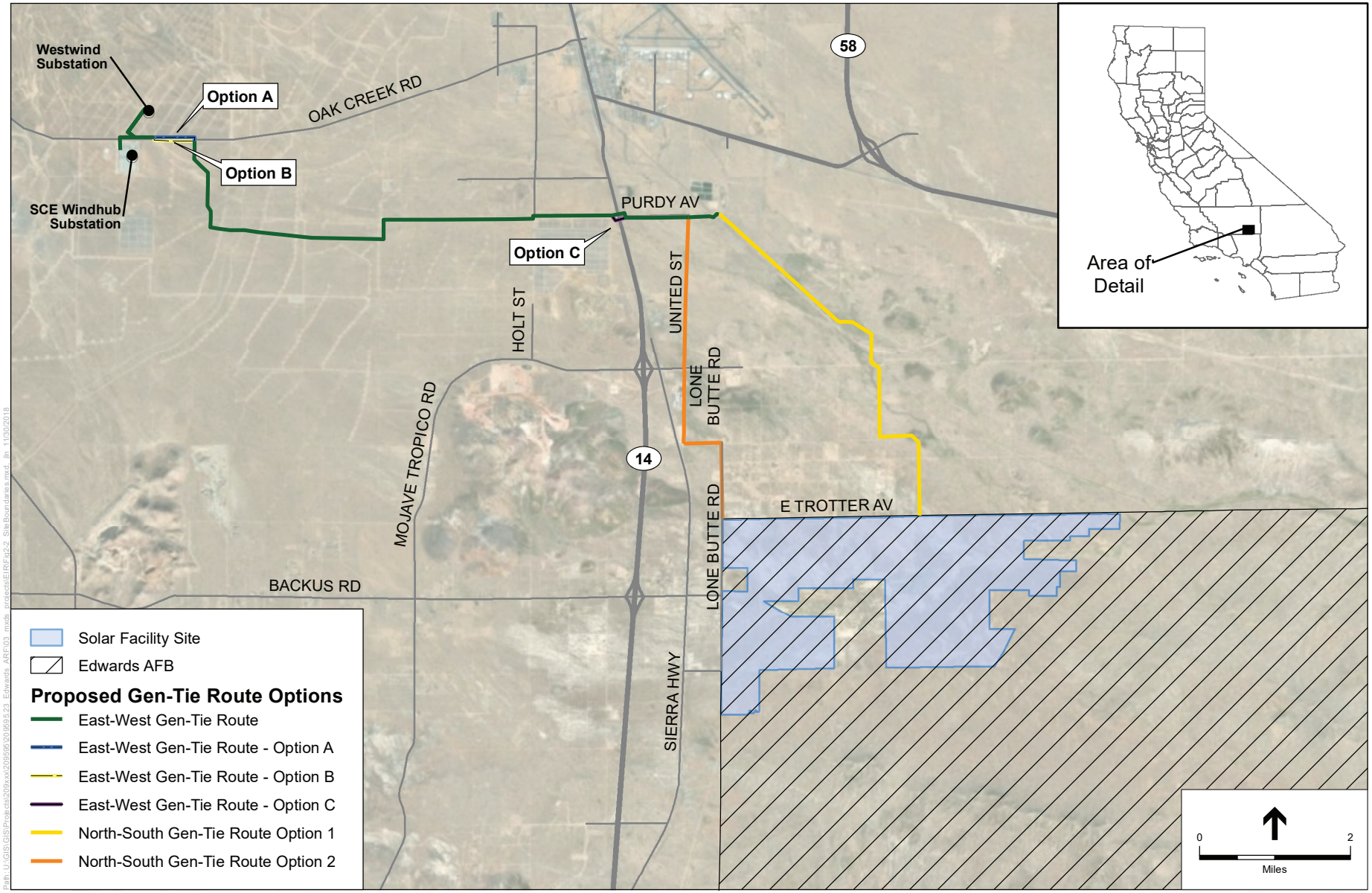


**Figure ES-2: SITE BOUNDARIES**

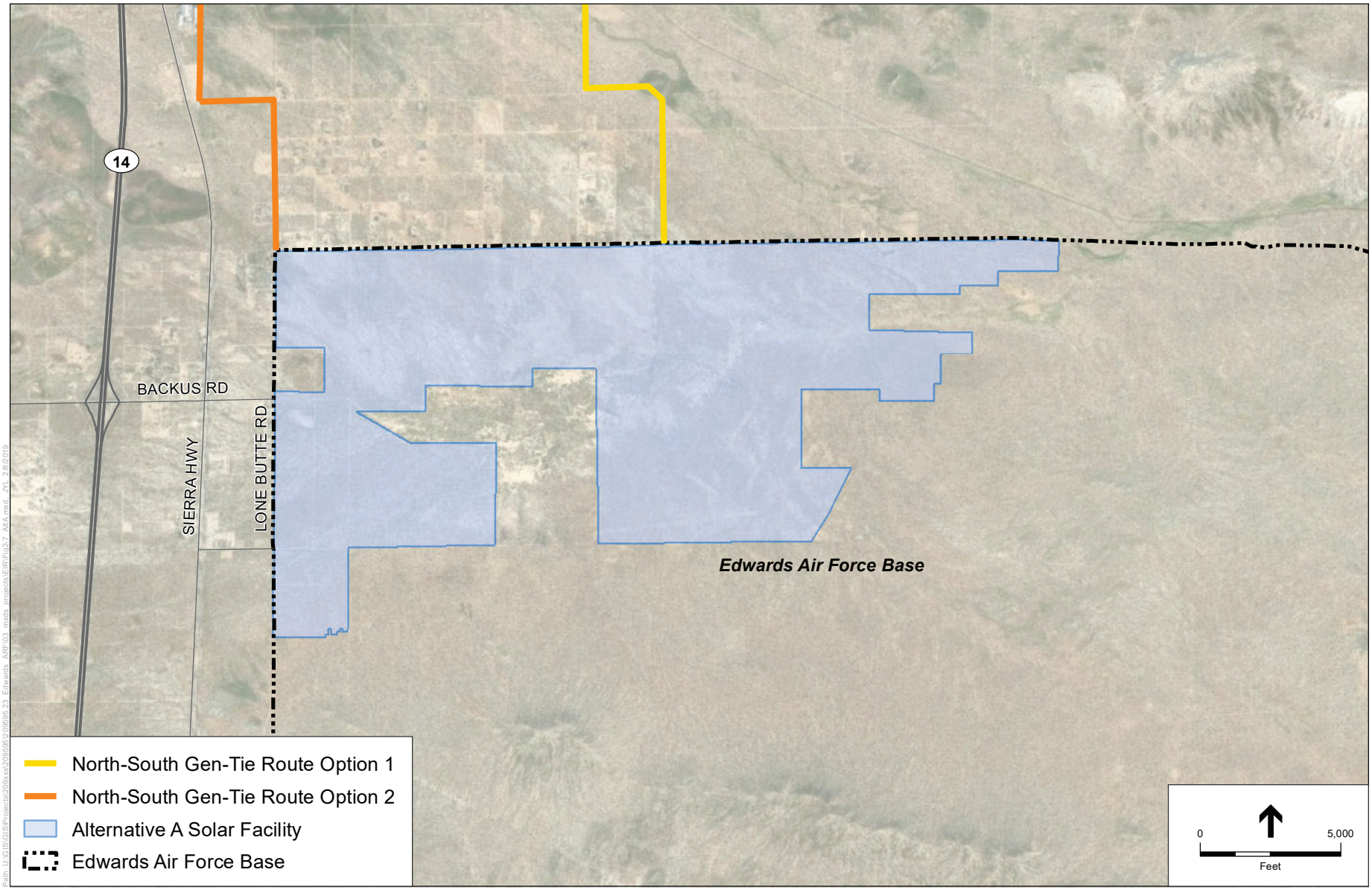


**Figure ES-3: ALTERNATIVE A SITE PLAN**

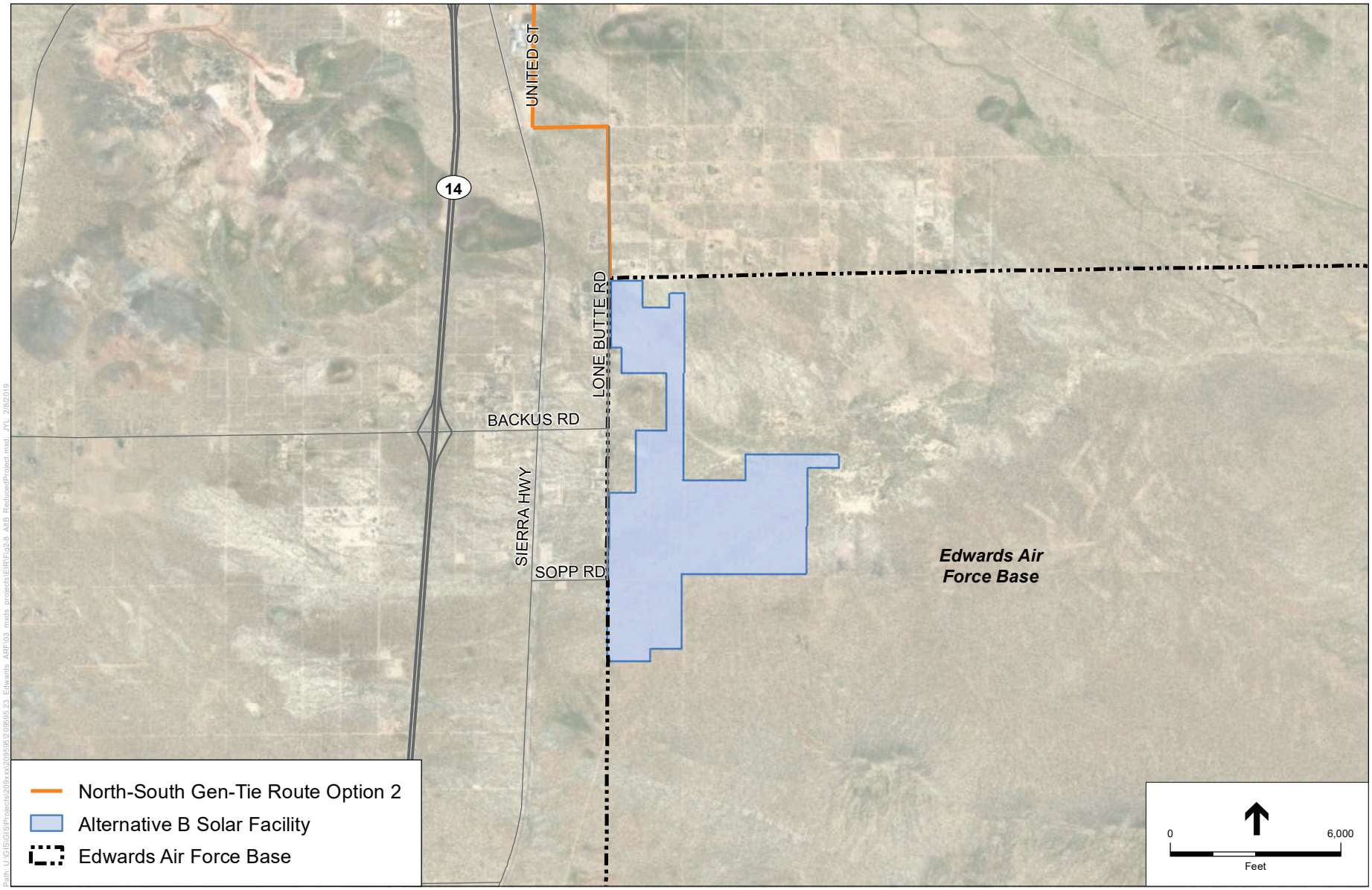


**FIGURE ES-4: ALTERNATIVE B REDUCED PROJECT BUILD-OUT**

CEQA Guidelines Section 15126.6(e) (2) requires an EIR to identify an environmentally superior alternative. If the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. In general, the environmentally superior alternative is defined as that alternative with the least adverse impacts to the project area and its surrounding environment.

# ES.6 Environmental Impacts

## ES.6.1 Impacts Not Further Considered in This EIS/EIR

Environmental issues not present in the project area or not affected by the alternatives include:

- Population and Housing
- Recreation

**Population and Housing.** As discussed in Appendix A1 (Notice of Preparation/Initial Study), because construction of the proposed project would be temporary and short term and operation of the project would require a relatively small number of people (10), it was determined that the proposed project would not have the potential to result in population growth that would result in the need for construction of new homes, displacement of existing housing, or displacement of substantial numbers of people. Therefore, this issue is not analyzed in this EIS/EIR.

**Recreation.** As discussed in Appendix A1, the temporary increase of population during construction that might be caused by an influx of workers would be minimal and would not result in a detectable increase in the use of parks or other recreational facilities. Therefore, this issue is not analyzed in this EIS/EIR.

Impacts related to the following resource areas are evaluated in this EIS/EIR for their potential significance:

- Aesthetics
- Agricultural Resources
- Air Quality
- Airspace Management and Use
- Biological Resources
- Cultural and Paleontological Resources
- Geology, Minerals, and Soils
- Greenhouse Gas Emissions
- Hazardous Materials and Safety
- Infrastructure
- Land Use
- Noise
- Public Services
- Socioeconomics and Environmental Justice
- Transportation
- Tribal Resources
- Hydrology and Water Quality

# ES.6.2 Impacts of the Proposed Project

## ES.6.2.1 Less-than-Significant Impacts (Including Significant Impacts that Can Be Mitigated, Avoided, or Substantially Lessened)

**Table ES-1** presents those resources for which impacts of the project were determined to be less than significant. Less-than-significant cumulative impacts are also included in this table. Sections 3.1 through 3.16 of this EIS/EIR present detailed analysis of these impacts and describe the means by which the mitigation measures listed in Table ES-1 would reduce impacts to a less than significant level. With respect to federal NEPA regulations, cumulative impacts (effects) are defined in in 40 CFR Section 1508.7 by the Council on Environmental Quality (CEQ).

**TABLE ES-1**
**SUMMARY OF PROPOSED PROJECT IMPACTS THAT ARE LESS THAN SIGNIFICANT OR LESS THAN SIGNIFICANT WITH MITIGATION**

| Impact | Mitigation Measures |
|---|---|
| Aesthetics | MM 3.1-1a through MM 3.1-3a, MM 3.1-1b through MM 3.1-3b, and MM 3.5-4a |
| Agricultural Resources (Project and Cumulative) | None required |
| Air Quality | MM 3.3-1a through MM 3.3-10a and MM3.3-1b through MM3.3-8b |
| Airspace Management and Use (Project and Cumulative) | MM 3.4-1a, MM 3.4-2a, and MM 3.4-1b |
| Biological Resources (Project and Cumulative) | MM 3.5-1a through MM 3.5-13a and MM 3.5-1b through 3.5-15b |
| Cultural & Paleontological Resources | MM 3.6-1a through MM 3.6-10a and MM 3.6-1b through MM 3.6-8b |
| Geology and Soils (Project and Cumulative) | MM 3.7-1a, MM 3.7-2a, and MM 3.7-1b through MM 3.7-4b |
| Greenhouse Gas Emissions (Project and Cumulative) | MM 3.3-1b through MM 3.3-6b |
| Hazardous Materials and Safety (Project and Cumulative) | MM 3.9-1a through MM 3.9-6a and MM 3.9-1b through MM 3.9-8b |
| Infrastructure (Project and Cumulative) | MM 3.10-1a, MM 3.10-1b, MM 3.10-2a, MM 3.10-2b, MM 3.11-1a, MM 3.11-1b, MM 3.16-3a, and MM 3.16-3b |
| Land Use (Project and Cumulative) | MM 3.11-1a and MM 3.11-1b |
| Noise (Project and Cumulative) | MM 3.12-1a, MM 3.12-2a, MM 3.12-1b, and MM 3.12-2b |
| Public Services (Project and Cumulative) | MM 3.13-1a, MM 3.13-1b, MM 3.9-6a, and MM 3.9-8b |
| Socioeconomics and Environmental Justice | None Required |
| Transportation (Project and Cumulative) | MM 3.15-1a, MM 3.15-1b, and MM 3.15-2b |
| Tribal Cultural Resources (Project and Cumulative) | None required |
| Water Resources (Project and Cumulative) | MM 3.9-1a, MM 3.9-1b, MM 3.16-1a, MM 3.16-1b, MM 3.16-2a, MM 3.16-2b, MM 3.16-3a, MM 3.16-3b, MM 3.16-4a, MM 3.16-4b, MM 3.16-5a, and MM 3.16-5b |

### ES.6.2.2 Significant and Unavoidable Impacts

**Table ES-2** presents those impacts of the proposed project that are significant and unavoidable even with the implementation of mitigation measures. As stated above, this EIS/EIR presents a detailed analysis of these impacts and describes the means by which the mitigation measures, listed in Table ES-2, would reduce the severity of impacts to the extent feasible.

**TABLE ES-2**
**SUMMARY OF PROPOSED PROJECT IMPACTS THAT ARE SIGNIFICANT AND UNAVOIDABLE**

| Impact | Mitigation Measures |
|---|---|
| Aesthetics (Project and Cumulative) | MM 3.1-1a through MM 3.1-3a, MM 3.1-1b through MM 3.1-3b, and MM 3.5-4a |
| Air Quality (Project and Cumulative) | MM 3.3-1a through MM 3.3-10a and MM3.3-1b through MM3.3-8b |

### ES.6.2.3 Significant Cumulative Impacts

According to Section 15355 of the CEQA Guidelines, the term cumulative impacts "...refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." With respect to federal NEPA regulations, cumulative impacts (effects) are defined in in 40 CFR Section 1508.7 by the CEQ. Individual effects that may contribute to a cumulative impact may be from a single project or a number of separate projects. Individually, the impacts of a project may be relatively minor, but when considered along with impacts of other closely related or nearby projects, including newly proposed projects, the effects could be cumulatively considerable. This EIS/EIR has considered the potential cumulative effects of the proposed project along with other current and reasonably foreseeable projects. Impacts for the following have been found to be cumulatively considerable:

- Aesthetics
- Air Quality

## ES.7 Summary of Environmental Impacts and Mitigation

**Table ES-3** summarizes the comparison of alternatives identified and analyzed in Chapter 4 of this EIS/EIR. Refer to the appropriate section for additional detail.

**Table ES-4** summarizes the comparison of impacts and CEQA significance determinations for all alternatives.

**Table ES-5** summarizes the environmental impacts of the project, mitigation measures, and unavoidable significant impacts identified and analyzed in Chapter 3 of this EIS/EIR. Refer to the appropriate section for additional detail.

**TABLE ES-3**
**SUMMARY OF IMPACTS BY ALTERNATIVE**

| Resource | Alternative A: Proposed Project (Up to 4,000-acre Solar PV Project) | Alternative B: Reduced-Scale Project (1,500-acre Solar PV Project) | Alternative C: No Action / No Project | Alternative D: Rooftop Solar (CEQA Alternative only) |
|---|---|---|---|---|
| **Aesthetics** | Indirect impacts as a result of dust clouds generated from construction grading activities.<br>Direct impacts to visual resources.<br>Direct impacts to visual resources during decommissioning. | Similar, but reduced impacts to visual resources as Alternative B would only require one-third of the area. | No impacts to visual resources in the Proposed Action area. | Reduced aesthetic impacts as installation of panels on large rooftops would be visually unobtrusive or unnoticed at ground level. |
| **Air Quality** | Construction Emissions / *De Minimis* Level<br>Units tons/year (first calendar year)<br>ROG = 1.39 / *50*<br>NOx = 11.89 / *50*<br>CO = 15.51 / *100*<br>SOx = 0.04 / *100*<br>PM10 = 9.98 / *70*<br>PM2.5 = 1.54 / *100*<br>**Does not exceed *De Minimis* Level**<br>Construction Emissions / *De Minimis* Level<br>Units tons/year (second calendar year)<br>ROG = 2.57 / *50*<br>NOx = 23.31 / *50*<br>CO = 29.82 / *100*<br>SOx = 0.08 / *100*<br>PM10 = 17.57 / *70*<br>PM2.5 = 2.83 / *100*<br>**Does not exceed *De Minimis* Level**<br>Construction Emissions / *De Minimis* Level<br>Units tons/year (third calendar year)<br>ROG = 1.21 / *50*<br>NOx = 11.43 / *50*<br>CO = 14.93 / *100*<br>SOx = 0.04 / *100*<br>PM10 = 9.88 / *70*<br>PM2.5 = 1.53 / *100* | Construction Emissions / *De Minimis* Level<br>Units tons/year (first calendar year)<br>ROG = 0.58 / *50*<br>NOx = 5.05 / *50*<br>CO = 6.62 / *100*<br>SOx = 0.02 / *100*<br>PM10 = 3.77 / *70*<br>PM2.5 = 0.61 / *100*<br>**Does not exceed *De Minimis* Level**<br>Construction Emissions / *De Minimis* Level<br>Units tons/year (second calendar year)<br>ROG = 0.53 / *50*<br>NOx = 5.01 / *50*<br>CO = 6.55/ *100*<br>SOx = 0.01 / *100*<br>PM10 = 3.78 / *70*<br>PM2.5 = 1.45 / *100*<br>**Does not exceed *De Minimis* Level**<br>Operational: Emissions / *De Minimis* Level<br>Units tons/year<br>ROG = 0.16 / *50*<br>NOx = 0.12 / *50*<br>CO = 0.10 / *100*<br>SOx = 0.00 / *100*<br>PM10 = 0.02 / *70*<br>PM2.5 = 0.01 / *100* | No impacts to air quality.<br>If Alternative A is not built, then approximately 656,752 million tons of carbon dioxide equivalent (MT $CO_2e$) per year of emissions from electricity generated by fossil fuel sources would not be reduced by renewable electricity from solar energy production. | Reduced impacts to air quality as no construction activities or ground disturbance would occur.<br>Construction emissions related to delivery of materials and workers would be similar to or greater than Alternative A. |

| Resource | Alternative A: Proposed Project (Up to 4,000-acre Solar PV Project) | Alternative B: Reduced-Scale Project (1,500-acre Solar PV Project) | Alternative C: No Action / No Project | Alternative D: Rooftop Solar (CEQA Alternative only) |
|---|---|---|---|---|
| | **Does not exceed *De Minimis* Level**<br>Operational Emissions / *De Minimis* Level Units tons/year<br>ROG = 0.23 / *50*<br>NOx = 0.31 / *50*<br>CO = 0.24 / *100*<br>SOx = 0.00 / *100*<br>PM10 = 0.06 / *70*<br>PM2.5 = 0.02 / *100*<br>**Does not exceed *De Minimis* Level**<br>Decommissioning<br>Comparable in type and magnitude, but likely to be lower than the construction emissions, and not expected to violate national or state ambient air quality standards. | **Does not exceed *De Minimis* Level**<br>Decommissioning:<br>Comparable in type and magnitude, but likely to be lower than the construction emissions. | | |
| **Airspace Management and Use** | Less than significant impacts with regard to consistency with the Airport Land Use Compatibility Plan (ALUCP), air traffic levels or patterns, safety or operational hazards to aircraft, and glint and glare assessments. | Similar, but reduced impacts due to a smaller area of disturbance. | No impact related to consistency with the ALUCP and air safety hazards, air traffic levels or patterns, safety or operational hazards to aircraft, and glint and glare assessments | Reduced impacts as a construction of a gen-tie lie is not required.<br>Reduced impacts with regard to glint and glare. |
| **Biological Resources** | Direct impact to removing a maximum of 4,150 acres of general non-sensitive vegetation and wildlife resources.<br>Direct and indirect impacts to special-status plant species.<br>Direct impacts to special-status (federal and state) wildlife species.<br>Direct impacts to sensitive habitats, including Joshua tree woodlands and wildlife movement corridors. | Similar but reduced potential impacts to special-status plants and wildlife with regard to a smaller amount of construction-related ground disturbance. | No impacts to onsite conditions or existing biological resources, including general vegetation and wildlife resources, special-status plants, special-status wildlife, and sensitive habitats. | Reduced impacts to biological resources as installation of solar panels would occur on currently developed areas. |
| **Cultural and Paleontological Resources** | Direct impacts to known and unknown cultural resources, archaeological resources, paleontological resources, and historical resources.<br>Indirect impacts during routine operation and maintenance activities on cultural resources. | Similar but reduced impacts to cultural resources, archaeological resources, paleontological resources, and historical resources due to reduced physical development of the site. | No impacts to cultural or paleontological resources at the project site. | Reduced impacts to cultural resources as only previously developed areas would be modified. |

| Resource | Alternative A: Proposed Project (Up to 4,000-acre Solar PV Project) | Alternative B: Reduced-Scale Project (1,500-acre Solar PV Project) | Alternative C: No Action / No Project | Alternative D: Rooftop Solar (CEQA Alternative only) |
|---|---|---|---|---|
| **Geology and Soil Resources** | Within the project site, there is an absence of any known active faults that cross or come anywhere near the project site; ergo, there would be no adverse effects related to fault rupture.<br>The site is not located in an area undergoing fluid withdrawal that could generate a potential subsidence effect.<br>Construction of the proposed project would involve earthwork activities that could expose soils to erosion. | Similar but reduced potential for adverse soil conditions; similar potential for ground subsidence or seismic-related ground failures.<br>Reduced potential for erosion due to smaller site. | No impacts to geology, minerals, or soils. | Reduced impacts to geology and soils as it would not require in-ground construction and minimally expose people to geologic or seismic hazards. |
| **Greenhouse Gas Emissions** | Construction Emissions / CEQ Level Units tons/year (first calendar year)<br>$CO_2e$ = 3,790.26 */ 25,000*<br>**Does not exceed CEQ Level**<br>Construction Emissions / *CEQ* Level Units tons/year (second calendar year)<br>$CO_2e$ = 7,608.45 */ 25,000*<br>**Does not exceed CEQ Level**<br>Construction Emissions / *CEQ* Level Units tons/year (third calendar year)<br>$CO_2e$ = 3,945.72 */ 25,000*<br>**Does not exceed CEQ Level**<br>Operational Emissions / *CEQ* Level Units tons/year<br>$CO_2e$ = 3,948.65 / *25,000*<br>**Does not exceed CEQ Level**<br>Decommissioning<br>Comparable in type and magnitude, but likely to be lower than the construction emissions, and not expected to violate national or state ambient air quality standards. | Construction Emissions / *CEQ* Level Units tons/year (first calendar year)<br>$CO_2e$ = 3,782.10 */ 25,000*<br>**Does not exceed CEQ Level**<br>Construction Emissions / *CEQ* Level Units tons/year (second calendar year)<br>$CO_2e$ = 1,902.28 */ 25,000*<br>**Does not exceed CEQ Level**<br>Operational: Emissions / *CEQ* Level Units tons/year<br>$CO_2e$ = 1,473.01 */ 25,000*<br>**Does not exceed CEQ Level**<br>Decommissioning:<br>Comparable in type and magnitude, but likely to be lower than the construction emissions. | No generation of GHG emissions that would cause any impact to global climate change.<br>Since Alternative A would not be built, approximately 656,752 MT CO2e per year of emissions from electricity generated by fossil-fuel sources would not be reduced by renewable electricity from solar energy production. | Impacts would be similar to, or greater than, Alternative A, because the GHG emissions from delivery of materials and workers would travel to greater distances at which construction sites would be located. |
| **Hazards and Hazardous Materials** | Potential impacts from the accidental release of hazardous materials during construction, maintenance and decommissioning. | Similar but reduced likelihood of accidental release of hazardous materials used onsite or potential due to smaller site and shorter construction time. | No impacts related to the accidental release of hazardous materials. | Reduced impacts as no construction activities would occur that could potentially disturb hazardous materials. |

| Resource | Alternative A: Proposed Project (Up to 4,000-acre Solar PV Project) | Alternative B: Reduced-Scale Project (1,500-acre Solar PV Project) | Alternative C: No Action / No Project | Alternative D: Rooftop Solar (CEQA Alternative only) |
|---|---|---|---|---|
| **Infrastructure** | Construction period would require up to 200 acre-feet per year (AFY) of water to support concrete manufacturing, dust control, and sanitation.<br>No impacts to electrical, natural gas, or other utility lines.<br>Operation activities would require up to 30 AFY.<br>A septic system would be needed to dispose of wastewater.<br>Solid waste generated would not exceed the capacity of the Rosamond Landfill. | Similar but reduced usage of water and wastewater during construction due to the reduced size of the facility. | No impact to water supplies or generation of wastewater or solid waste. | Reduced impact as solar equipment installed on existing structures would not require new, in-ground construction. |
| **Land Use** | No conflict with floor-area ratio (FAR) regulations, Edwards AFB Installation Development Plan, Kern County General Plan, and West Edwards Road Settlement Specific Plan. | Similar impacts to Alternative A. | No impact to applicable land use plans, policies, and regulations. | Similar impacts to Alternative A. |
| **Noise** | Construction and decommissioning: maximum noise level generated would be 93 dBA at 50 feet from noise source, or 87 dBA from nearest sensitive receptor.<br>Operation and maintenance would not result in any activities that would generate substantial temporary or periodic increases in ambient noise levels. | Reduced noise impacts due to the reduced size of the facility and siting further from the nearest sensitive receptor, and shorter construction timeframe. | No impact to noise levels associated with construction, operation and maintenance, and decommissioning. | Greater impacts as construction noise could occur adjacent to residences, which would result in impacts to a larger number of sensitive receptors. |
| **Public Services** | Increase in truck and employee traffic on haul routes during construction and operation could increase impacts on fire protection and police protection services. | Similar but reduced as this Alternative would require fewer construction workers and operations staff. | No impact to fire and police protection services. | Reduced impacts as this Alternative would not increase demand of public services. |
| **Socioeconomics** | Construction workforce consists of 100 to 450 daily workers, which would generate an estimated 779 jobs over the 2-year construction period.<br>Operation and maintenance would require approximately 10 full-time personnel. | Similar but reduced impacts as this Alternative would require fewer workers and a reduction in the duration of construction. It would also require fewer full-time employees during operation and maintenance due to the smaller size of the facility. | No impact to employment and economic benefits. | |
| **Environmental Justice** | There are no communities of concern in the study area; therefore, the project would not result in human health and environmental adverse effects that would cause disproportionately high and adverse impacts on local and regional | There are no communities of concern in the study area; therefore, there the project would not result in human health and environmental adverse effects that would cause disproportionately high and adverse impacts on local and | No impact on local and regional communities of concern, including minority or low-income populations. | There are no communities of concern in the study area; therefore, the project would not result in human health and environmental adverse effects that would cause disproportionately high and adverse impacts on local and |

| Resource | Alternative A: Proposed Project (Up to 4,000-acre Solar PV Project) | Alternative B: Reduced-Scale Project (1,500-acre Solar PV Project) | Alternative C: No Action / No Project | Alternative D: Rooftop Solar (CEQA Alternative only) |
|---|---|---|---|---|
| | communities of concern, including minority or low-income populations. | regional communities of concern, including minority or low-income populations. | | regional communities of concern, including minority or low-income populations. |
| **Transportation** | Construction and decommissioning: increased traffic (1,840 daily trips) with no substantial change in LOS on affected roadways.<br>Operation and maintenance: minor traffic increase. | Construction and decommissioning: reduced duration of traffic increases.<br>Operation and maintenance: slightly reduced traffic increase. | No impacts to existing traffic conditions on area roadways. | Reduced impact as construction installation trips would be dispersed and would not congregate in one location. |
| **Hydrology and Water Quality** | Construction and decommissioning: potential impacts to water quality through erosion and sedimentation.<br>A maximum of approximately 200 AFY of water per year would be required during the 2-year construction period.<br>Approximately 200 total AFY would be required during decommissioning for dust control and sanitation.<br>During operation, the proposed project would require approximately 30 AFY. | Similar construction, impacts to hydrology and water quality.<br>Reduced impacts related to erosion and flooding due to fewer disturbed ground acres and shorter construction period.<br>Similar operational and decommissioning impacts, reduced amounts of pervious ground surface lost. | No impacts related to hydrology and water quality. | Reduced impacts, as there would be no increase in impervious surfaces. |

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**TABLE ES-4**
**CEQA COMPARISON OF ALTERNATIVES**

| Environmental Resource | **Alternative A:** Proposed Project (Up to 4,000-acre Solar PV Project) | **Alternative B:** Reduced Scale Project (1,500-acre Solar PV Project) | **Alternative C:** No Action / No Project | **Alternative D:** Rooftop Solar |
|---|---|---|---|---|
| Aesthetics | Significant and Unavoidable | Significant and Unavoidable<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Agricultural Resources | Less than Significant | Less than Significant<br>Same as A | No Impact<br>Reduced Compared to A | No Impact<br>Reduced Compared to A |
| Air Quality | Significant and Unavoidable | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Airspace Management and Use | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Biological Resources | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Cultural & Paleontological Resources | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Geology, Minerals, and Soils | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Greenhouse Gas Emissions | Less than Significant | Less than Significant<br>Reduced Compared to A | Less than Significant<br>Increased Compared to A | Less than Significant<br>Reduced Compared to A |
| Hazards and Hazardous Materials | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Infrastructure | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Land Use | Less than Significant | Less than Significant<br>Same as A | No Impact<br>Reduced Compared to A | Less than Significant<br>Similar to A |
| Noise | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Increased Compared to A |
| Public Services | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Transportation | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |
| Hydrology and Water Quality | Less than Significant | Less than Significant<br>Reduced Compared to A | No Impact<br>Reduced Compared to A | Less than Significant<br>Reduced Compared to A |

**TABLE ES-5**
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROPOSED ACTION SOLAR FACILITY (AIR FORCE MITIGATION AUTHORITY)**

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| **3.1 Aesthetics** | | | |
| **Impact 3.1-1:** Substantially degrade the existing visual character or quality of the site and its surroundings. | Potentially significant | **MM 3.1-3a: Recycling and Trash Abatement.** Prior to issuance of a grading or building permit, a Maintenance, Recycling and Trash Abatement, and Pest Management Program shall be submitted to the Air Force and Kern County.<br>The program shall include, but not limited to the following:<br>1. The project proponent shall clear debris from the project area at least twice per year; this can be done in conjunction with regular panel washing and site maintenance activities.<br>2. Signs shall be clearly established with contact information for the project proponent's maintenance staff at regular intervals along the site boundary. Maintenance staff shall respond within 3 days to resident requests for additional cleanup of debris. Correspondence with such requests and responses shall be submitted to the Air Force, as necessary.<br>3. Daily construction trash removal with recycling program. Pest/rodent barriers for all receptacles shall be detailed. Locations of all recycling and trash receptacles during operation of the project shall be shown on final plans.<br>4. Weekly/Monthly/Annual ongoing trash removal and recycling program. Pest/rodent barriers for all receptacles shall be detailed.<br>5. During construction, operation, and decommissioning, debris and waste generated shall be recycled to the extent feasible.<br>6. An onsite Recycling Coordinator shall be designated by the project proponent to facilitate recycling as part of the Maintenance, Recycling and, Trash Abatement and Pest Management Program.<br>7. The Recycling Coordinator shall facilitate recycling of all construction waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes.<br>8. The onsite Recycling Coordinator shall also be responsible for ensuring wastes requiring special disposal are handled according to State and County regulations that are in effect at the time of disposal.<br>9. Contact information of the coordinator shall be provided to the Air Force and Kern County prior to issuance of building permits.<br>**MM 3.1-1a: Facility Lighting Standards.** The project shall continuously comply with the following:<br>Project facility lighting shall be designed to provide the minimum illumination needed to achieve safety and security objectives. Lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Lenses and bulbs shall not extend below the shields.<br>**MM 3.1-2a: Nonreflective Materials.** Prior to the issuance of building permits, the project proponent shall demonstrate compliance with the following:<br>1. Any onsite buildings shall be constructed using nonreflective materials, as approved by Air Force and Kern County.<br>2. Submit plans showing onsite buildings are designed with a color treatment to be complementary to the surrounding desert landscape and use nonreflective materials, such as matte or nonglossy paint, as approved by Air Force and Kern County. | Significant and unavoidable |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| | | **MM 3.5-4a Vegetation Salvage Plan**. This measure applies to general vegetation and to special-status plants. (See section 3.5.5 for details). | |
| **Impact 3.1-2:** Create a new source of substantial light or glare that would adversely affect day or nighttime views in this area. | Potentially significant | **Implement Mitigation Measures MM 3.1-1a through MM 3.1-3a** | Less than significant |
| Cumulative | Potentially significant | **Mitigation Measures MM 3.1-1a through MM 3.1-3a** | Significant and unavoidable |
| **3.2 Agricultural Resources** | | | |
| **Impact 3.2-1:** The project would conflict with existing zoning for agricultural use or a Williamson Act Contract. | Less than significant | None required | |
| **Impact 3.1-2:** Involves other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use. | Less than significant | None required | |
| Cumulative | Less than significant | None required | Less than significant |
| **3.3 Air Quality** | | | |
| **Impact 3.3-1**: The project would conflict with or obstruct implementation of the applicable air quality plan. | Significant and unavoidable | **MM 3.3-1a: Fugitive Dust Control Measures.** The project proponent shall ensure construction of the project shall be conducted in compliance with applicable rules and regulations set forth by the Eastern Kern Air Pollution Control District. Dust control measures outlined below shall be implemented where they are applicable and feasible. The list shall not be considered all-inclusive and any other measures to reduce fugitive dust emissions may be required by appropriate agencies to respond to urgent issues on site:<br>1. Land Preparation, Excavation and/or Demolition. The following dust control measures shall be implemented:<br>a. All soil being actively excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed soil areas. Watering shall take place a minimum of three times daily on disturbed soil areas with active operations, unless dust is otherwise controlled by rainfall or use of a dust suppressant.<br>b. After active construction activities, soil shall be stabilized with a non-toxic soil stabilizer or soil weighting agent, or alternative approved soil stabilizing methods.<br>c. All unpaved construction and operation/maintenance site roads, as they are being constructed, shall be stabilized with a non-toxic soil stabilizer or soil weighting agent. | Significant and unavoidable |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| | | d. All clearing, grading, earth moving, and excavation activities shall cease during periods of winds greater than 25 miles per hour (averaged over 1 hour), or when dust plumes of 20% or greater opacity impact public roads, occupied structures, or neighboring property or as identified in a plan approved by the Eastern Kern Air Pollution Control District.<br>e. All trucks entering or leaving the site will cover all loads of soils, sands, and other loose materials, or be thoroughly wetted with a minimum freeboard height of 6 inches.<br>f. Areas disturbed by clearing, earth moving, or excavation activities shall be minimized at all times.<br>g. Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method to prevent wind-blown fugitive dust.<br>h. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or shall be treated with appropriate dust suppressant compounds.<br>i. Prior to construction, wind breaks (such as chain-link fencing including a wind barrier) shall be installed where appropriate.<br>j. Where acceptable to the Kern County Fire Department, weed control shall be accomplished by mowing instead of disking, thereby, leaving the ground undisturbed and with a mulch covering.<br>k. The project operator shall generally avoiding grading except when elevation changes exceed design requirements.<br>l. When grading is unavoidable, it is to be phased and done with the application of approved chemical dust palliatives that stabilize the earth.<br>m. Where ground is cleared, plant roots must be left in place where possible to stabilize the soil.<br>2. Site Construction. After active clearing, grading, and earth moving is completed within any portion of the site, the following dust control practices shall be implemented:<br>a. Dust suppressant shall be used on the same day or day immediately following the cessation of activity for a particular area where further activity is not planned.<br>b. Dependent on specific site conditions (season and wind conditions), revegetation shall occur in those areas where planned after installation of the solar panels.<br>c. All unpaved road areas shall be treated with a dust suppressant or graveled to prevent excessive dust.<br>d. The project operator shall use dust suppression measures during road surface preparation activities, including grading and compaction.<br>e. Final road surfaces must be stabilized to achieve a measurable threshold friction velocity (TFV) equal to or greater than 100 centimeters per second (cm/S) or a surface that is greater than or equal to 10 percent of non-erodible elements such as rocks or stones.<br>f. Wind barrier fencing or screening shall be installed, when appropriate.<br>3. Vehicular Activities. During all phases of construction, the following vehicular control measures shall be implemented:<br>a. On-site vehicle speed shall be limited to 15 miles per hour on unpaved areas within the project site. Vehicles may travel up to 25 miles per hour on stabilized unpaved roads (application of palliatives, gravel, etc. that reduces the erosion potential of the soil) as long as such speeds do not create visible dust emissions. | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|

b. Visible speed limit signs shall be posted at main ingress point(s) on site and posted at least every 500 feet, readable in both directions of travel along unpaved roads.

c. All areas with vehicle traffic such as the main entrance roadway to the project site shall be graveled or treated with dust palliatives so as to prevent track-out onto public roadways.

d. All vehicles that are used to transport solid bulk material on public roadways and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least 6 inches of freeboard.

e. Streets adjacent to the project site shall be kept clean, and project-related accumulated silt shall be removed on at a minimum of once daily, or as necessary to prevent substantial offsite fugitive dust releases. The use of either dry rotary brushes (unless prior wetting) or blower devices is prohibited.

f. Access to the site shall be by means of an apron into the project site from adjoining surfaced roadways. The apron shall be surfaced or treated with dust suppressants. If site soils cling to the wheels of the vehicles, then a grizzly, wheel-washer, or other such device shall be used on the road exiting the project site, immediately prior to the pavement, to remove most of the soil material from vehicle tires.

**MM 3.3-2a: Grading Plan.** Prior to the issuance of grading or building permits, the project proponent shall provide a comprehensive Phased Grading Plan for review by the Air Force and Kern County Planning and Natural Resources Department to reduce fugitive dust emissions resulting from wind erosion at the site. The Phased Grading Plan shall:

1. Identify a comprehensive grading schedule for the entire project site which demonstrates the following:
   a. **Minimal Grading**. Grading shall be minimized to limit the removal of topsoil and creation of loose soils. Only in areas where drainage improvements, structural foundations (e.g., inverter/transformer pads), service roads, and leveling of severe grades need to occur will grading that removes and recompacts the soil surface occur. Dust palliatives and water shall be immediately applied following any grading.
   b. **Dust Palliatives**. Application of dust palliatives or water shall be applied throughout project construction when required to help reduce dust, especially during periods of high winds, and shall include use of (1) an eco-safe, biodegradable, liquid copolymer shall be used to stabilize and solidify any soil; and (2) A hydro mulch mixture composed of wood fiber mulch and an Environ-Mend binder may also be applied, where real-time weather conditions dictate that additional measures are necessary.
   c. **Water Suppression**. Water trucks shall transit across the project site and construction access roads to suppress the fugitive dust from disturbed soils on roads and active working areas on a regular and as needed basis.
2. Minimize all grading activities to those areas necessary for project access and installation of solar panels and other associated infrastructure associated with the solar facility. Construction shall commence on areas that have undergone initial grading within 20 calendar days.
3. Identify, in addition to those measures required by the Eastern Kern Air Pollution Control District, all measures being undertaken during construction activities and operational activities to ensure dust being blown off site is minimized. Measure may include, but are not limited to:
   a. Increased use of water and or use of dust suppressant.

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|

b. Pre-seeding and/or use of wood chips as permitted by the EKAPCD

c. Construction of dust screening around the project site.

d. Limit work hours to days where the wind speed is below 25 miles per hour. Implement High Wind Event Dust Plan approved by EKAPCD if performing in high winds including additional minimization measures.

e. Obtain and Implement all requirements of the EKAPCD Dust Plan and/or Permit which may include monitoring of offsite emissions.

4. After construction is complete, the owner or operator of the site shall ensure the following activities are maintained to reduce dust generation during normal operations.

   a. Sites undergoing weed abatement activity shall not disrupt the soil to the extent that visible dust is carried by wind except where weed abatement is directed by a fire prevention/control agency.

   b. Travel on unpaved roads will be limited to fewer than 25 vehicle trips per day and at speeds between 5 and 35 miles per hour unless dust palliatives or frequent water is applied to the road surface.

5. Measures needed to control emissions from vehicle and equipment exhaust are to comply with the following:

   a. All stationary and portable engines must be certified to the appropriate USEPA Tier rating and CARB Executive Order emission standards. All new stationary and portable engines (including off-road equipment) must meet Tier IV emissions rating.

   b. CARB Fleet requirements for in-use off road equipment rated 25 hp or greater (construction equipment) and on-road diesel fueled vehicles with a gross vehicle weight greater than 10,000 pounds (semis, trucks, buses) shall limit idling to no more than 5 minutes when not actively in use. A vehicle may be allowed to idle for longer periods provided idling is necessary for safe operation of the vehicle or safety of the vehicle operator (emergency vehicles, air conditioning during excessive heat warnings, heating when temperature is below freezing).

   c. The equipment must be registered under Portable Equipment Registration Program (PERP) or Diesel Off-road Online Reporting System (DOORS) or maintain a local permit. The proponent/contractor shall be responsible for maintaining PERP/DOORS registration and notifying the Air Pollution Control District of any portable engines or generators on site.

   d. All equipment and vehicles shall only use gasoline, diesel, or alternative fuels that meet California Air Resources Board (CARB) certification specifications for ultra-low sulfur content and aromatic hydrocarbon content requirements.

**MM 3.3-3a: Construction Equipment Standards.** The project proponent and/or its contractors shall implement the following measures during construction of the project to reduce equipment exhaust:

1. All equipment shall be maintained in accordance with the manufacturer's specifications.
2. Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.
3. Electric equipment shall be used whenever possible in lieu of diesel or gasoline-powered equipment.
4. Use only gasoline, diesel, or alternative fuels that meet CARB certification specifications for ultra-low sulfur content and aromatic hydrocarbon content requirements.

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 5. All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions.<br>6. On-road and off-road diesel equipment shall use diesel particulate filters (or the equivalent) if permitted under manufacturer's guidelines, or maintain and use all control equipment as listed on the CARB Executive Order for the engine as issued pursuant to 13 CCR 2420.<br>7. Prohibit the use of heavy-equipment during first- or second-stage smog alerts and suspend all construction activities during second-stage smog alerts.<br>8. Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators.<br>9. Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use to the extent feasible.<br>10. Require that trucks and vehicles in loading or unloading queues have their engines turned-off when not in use.<br>11. Off-road equipment engines over 50 horsepower shall be Tier 2 certified or higher (unless Tier 2 equipment has been determined to not be available).<br>12. No vehicle or engines may idle for more than 5 consecutive minutes except to ensure safe operation of the vehicle or safety of the vehicle operator.<br>13. All construction-related equipment rated higher than 25hp, including heavy-duty equipment, motor vehicles, and portable equipment, shall have current registration (PERP of DOORS) with CARB or local air permits.<br><br>**MM 3.3-4a: Onsite Idling Standards.** These measures should be required to ensure the reduction of public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles:<br>1. The driver shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location.<br><br>**MM 3.3-5a: Dust Control.** The project proponent shall continuously comply with the following measures to control fugitive dust emissions during project operations and construction activities:<br>1. Increase handling moisture content of graded soils from the typical of 15 percent to 20 percent during construction activities.<br>2. Reduce speed of road grading by motor graders and rollers from typical 7.1 miles per hour (mph) to 5 mph.<br>3. Prior to construction, onsite roads that will have the greatest extent of onsite travel shall be graveled.<br>4. Use a dust suppressant such as magnesium chloride, polymer, or similar, to the extent feasible, including on gravel roads.<br><br>**MM 3.3-6a: Onsite Emissions Control.** The project proponent shall continuously comply with the following measures during construction and operations to control emissions from onsite dedicated equipment (equipment that would remain onsite each day):<br>1. All onsite off-road equipment and on-road vehicles for operation and maintenance shall meet the recent CARB engine emission standards or alternatively fueled construction equipment, such as compressed natural gas, liquefied gas, or electric, as appropriate. Use only gasoline, diesel, or alternative fuels that | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | meet CARB certification specifications for ultra-low sulfur content and aromatic hydrocarbon content requirements.<br>2. All equipment shall be turned off when not in use, where feasible. Engine idling of all equipment shall be minimized to less than 5 minutes excepting safety requirements.<br>3. All equipment engines shall be maintained in good operating condition and in tune per manufacturer's specification.<br><br>**MM 3.3-7a: Coating Requirements.** The developer shall comply with**:**<br>1. The provisions of Eastern Kern Air Pollution Control District Rule 410.1A – Architectural.<br>2. Coatings, during the construction of all buildings and facilities. Application of architectural coatings shall be completed in a manner that poses the least emissions impacts whenever such application is deemed proficient.<br>3. The developer shall comply with the provisions of Eastern Kern Air Pollution Control District Rule 410.5 during the construction and pavement of all roads and parking areas within the Project area. Specifically, the developer shall not allow the use of:<br>a. Rapid-cure cutback asphalt<br>b. Medium-cure cutback asphalt<br>c. Slow-cure cutback asphalt; and<br>d. Emulsified asphalt<br><br>**MM 3.3-8a: Erosion Control Measures.** The project proponent shall implement the following wind erosion reduction measures to comply with EKAPCD Rules 401 and 402 during strong wind events.<br>1. Sand fences shall be used to capture sand deposits caused by wind erosion in the southwest portion of the project site. Sand fences should be placed to protect structures, including residences, and other amenities from wind-blown sand. In particular, sand fencing should be placed along Trotter Avenue.<br>2. Install permanent fencing with a minimum 50 percent porosity and at least 6 feet in height in those areas immediately west and west-southwest of permanent existing residences prior to vegetation removal/soil disturbance within 1,000 feet of the residence.<br>3. In areas where grading will occur, temporary construction fences (with minimum 50 percent porosity and at least 4 feet high) shall be installed every 200-300 feet perpendicular to the prevailing wind in a manner to reduce fugitive dust from leaving the area being graded. Depending on the use and effectiveness of water and dust suppressants, install additional temporary fencing with tighter spacing as necessary.<br><br>**MM 3.3-9a: Operational/Permanent Wind Erosion Reduction.** The project proponent shall continuously comply with the following measures during operation to control wind erosion:<br>1. Install permanent fencing with a minimum 50% porosity and at least 6 feet in height along the project boundary along Lone Butte and Trotter. If significant sand movement is observed on site, additional sand fences should be placed within the site to reduce movement and protect onsite structures, including photovoltaic arrays, from wind-blown sand. As sand deposits grow, the sand deposits shall be planted with vegetation to reduce further erosion.<br>2. Prepare and submit a Fugitive Dust Emission Control Plan pursuant to EKAPCD Rule 402 Section V.D. | |

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| | | 3. Apply for and obtain EKAPCD Authority to Construct / Permit to Operate prior to conducting any work on the project site.<br>4. Prepare a Fugitive Dust Emission Monitoring Plan, which shall include installation of onsite PM10 air monitors for a minimum of 5 years, as required by EKAPCD, to ensure effectiveness of dust mitigation measures or propose alternative PM monitoring plan using USEPA Method 9 Visible Emissions Evaluation or other approved opacity monitoring methods. Per EKAPCD guidelines, the operator of a facility may petition to cancel District PTO, in the event that 5 years of data demonstrate " (upwind/downwind concentration difference is 50-µg/m3 or less [based on 1-hour averages]). | |
| **Impact 3.3-2**: The proposed projects could violate an applicable air quality standard or contribute substantially to an existing or projected air quality violation. | Significant and unavoidable | Mitigation Measures MM 3.3-1a through MM 3.3-9a | Significant and unavoidable |
| **Impact 3.3-3:** Construction and operation of the proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under applicable federal or state ambient air quality standards (including releasing emissions that exceed quantitative thresholds for ozone precursors). | Significant and unavoidable | Mitigation Measures MM 3.3-1a through MM 3.3-9a | Significant and unavoidable |
| **Impact 3.3-4**: Construction and operation of the proposed project could expose sensitive receptors to substantial pollutant concentrations. | Potentially significant | **MM 3.3-10a**: **Valley Fever.** Prior to ground disturbance activities, the project proponent shall provide a "Valley Fever Training Information Packet" and conduct training sessions for all construction personnel. A copy of the handout and a schedule of education sessions shall be provided to the Kern County Planning and Natural Resources Department. All evidence of the training session(s) and handout(s) shall be submitted to the Kern County<br>Planning and Natural Resources Department on a monthly basis. Multiple training sessions may be conducted if different work crews come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the Kern County Planning and Natural Resources Department regarding the "Valley Fever Training Handout" and Session(s) shall include the following:<br>1. A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session.<br>2. Distribution of an information packet that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever; symptoms of exposure; and instruction for reporting cases of flu-like or respiratory illness symptoms to the Site Safety Officer. Those with persistent systems lasting more than 3 days shall be recommended to seek immediate medical advice.<br>3. Training on methods that may help prevent Valley Fever infection. | Less than significant |

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| | | 4. A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Though use of the equipment is not mandatory during work, the equipment shall be readily available and shall be provided to employees for use during work, if requested by an employee. Proof that the demonstration is included in the training shall be submitted to the county. This proof can be via printed training materials/agenda, DVD, digital media files, **or photographs.** | |
| **Cumulative** | Significant and unavoidable | Mitigation Measures MM 3.3-1a through MM 3.3-9a | Significant and unavoidable |
| **3.4 Air Space Management and Use** | | | |
| **Impact 3.4-1:** The project is located within the adopted Kern County Airport Land Use Compatibility Plan and could result in a safety hazard for people residing or working in the project area. | Less than significant | **MM 3.4-1a: Frequency Management.** Prior to the operation of the solar facility, the developer shall consult with the Air Force to identify the appropriate Frequency Management Office personnel to coordinate the use of telemetry to avoid potential frequency conflicts with military operations.<br>**MM 3.4-2a: Federal Aviation Administration.** Prior to issuance of building permits:<br>1. The developer shall submit Form 7460-1 (Notification of Proposed Construction or Alteration) to the Federal Aviation Administration, in the form and manner prescribed in Code of Federal Regulation 77.17;<br>2. The developer shall also provide documentation to Air Force demonstrating that the Federal Aviation Administration has issued a "Determination of No Hazard to Air Navigation." This documentation shall include written concurrence from the military authority responsible for operations in the flight area depicted in the Kern County Zoning Ordinance Figure 19.08.160 that all project components in the flight area would create no significant military mission impacts.<br>3. The developer shall also provide documentation to Air Force demonstrating that a copy of the approved form(s) has been provided to the operators of Mojave Air Space and Port. | Less than significant |
| **Impact 3.4-2:** The project is located within the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area. | Less than significant | No mitigation measures are required. | Less than significant |
| **Impact 3.4-3:** The project could result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. | Less than significant | No mitigation measures are required. | Less than significant |
| Cumulative | Less than significant | Mitigation Measures MM 3.4-1a and MM 3.4-2a. | Less than significant |
| **3.5 Biological Resources** | | | |
| **Impact 3.5-1**: The project would have a substantial adverse | Potentially significant | **MM 3.5-1a: Biological Monitoring.** Prior to the issuance of grading or building permits, the project proponent shall retain a Lead Biologist who has experience with western Mojave Desert wildlife, is familiar with listed and | Less than significant |

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| impact, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. | | other special status species from the project vicinity, has experience with construction compliance monitoring, and is familiar with the ecosystems on and near the project site to oversee compliance with protection measures for all listed and other special-status species. The Lead Biologist shall be assisted by qualified biological monitors. Resumes for the Lead Biologist and qualified biological monitors shall be submitted and approved by the Kern County Planning and Natural Resources Department and the Edwards AFB Natural Resource Manager. The Lead Biologist and/or qualified biological monitors shall be on the project site during construction of perimeter fencing and grading activities throughout the construction phase. The Lead Biologist and qualified biological monitors shall have the right to halt all activities that are in violation of the special-status species protection measures. Work shall proceed only after hazards to special-status species are removed and the species is no longer at risk. The Lead Biologist and qualified biological monitors shall have in her/his possession a copy of all the compliance measures while work is being conducted on the project site.<br><br>**MM 3.5-2a: Noise Mitigation.** The following measure will be implemented to avoid, minimize and mitigate potential impacts to special-status wildlife from noise:<br>1. Construction equipment will be restricted from use in areas where biological buffers have been established to protect nests or other potentially noise sensitive resources. Buffers will be removed when nests have fledged or failed, or resource concerns no longer exist.<br><br>**MM 3.5-3a Worker Environmental Awareness Training and Education Program.** Prior to the issuance of grading or building permits and for the duration of construction activities, within 1 week of employment all new construction workers at the project site, laydown area and/or transmission routes shall attend a Worker Environmental Awareness Training and Education Program (WEATEP), developed and presented by the Lead Biologist. If approved by the Edwards AFB Natural Resource Manager and if in conjunction with discussion by the Lead Biologist a training video may be used in certain cases. The Training and Education shall include:<br>1. Any employee responsible for the operations and maintenance or decommissioning of the project facilities shall also attend the Worker Environmental Awareness Training and Education Program.<br>2. The program shall include information on the life history of the desert tortoise and migratory birds. The program shall also discuss the legal protection status of the species, the definition of “take” under the Federal Endangered Species Act. measures the project proponent is implementing to protect the species, reporting requirements, specific measures that each worker shall employ to avoid take of wildlife species, and penalties for violation of the Federal Endangered Species Act.<br>3. An acknowledgement form signed by each worker indicating that Worker Environmental Awareness Training and Education Program has been completed shall be provided to the Edwards AFB Natural Resource Manager.<br>4. Construction workers shall not be permitted to operate equipment within the construction areas unless they have attended the Worker Environmental Awareness Training and Education Program.<br>5. A copy of the audio or video training, as well as a list of the names of all personnel who attended the Worker Environmental Awareness Training and Education Program and copies of the signed acknowledgement forms shall be submitted to the Kern County Planning and Natural Resources Department and the Edwards AFB Natural Resource Manager.<br>6. The construction crews and contractor(s) shall be responsible for unauthorized impacts from construction activities to sensitive biological resources that are outside the areas defined as subject to impacts by project permits. | |

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| | | **MM 3.5-4a Vegetation Salvage Plan.** This measure applies to general vegetation and to special-status plants.<br>1. Restoration activities will be conducted in accordance with the revegetation plans prepared by Edwards Air Force Base (Air Force 1994; Air Force 2012) and any new scientifically proven methodology. Monitoring success of restoration efforts will be implemented for a longer period than the standard 5-year monitoring period due to slow recovery rates of revegetated areas in the desert. The revegetation/restoration plan shall be submitted to the Edwards AFB Natural Resources Manager for comment and approval.<br>2. Priority for revegetation will be given to desert tortoise critical habitat.<br>3. Project activities that would result in the removal of any vegetation in an area that was previously undisturbed (including areas that were once disturbed and now contain vegetation) may require revegetation/restoration in accordance with the Edwards Air Force Base Revegetation Plan (AFFTC/EM 1994).<br>4. Lands above underground utilities will be revegetated unless a road needs to be constructed and maintained for access and maintenance activities.<br>5. This project may impact sensitive plant species including alkali mariposa-lily, desert cymopterus, recurved larkspur, Barstow woolly sunflower, and sagebrush loeflingia. The proponent/contractor shall develop protocols for the surveying, translocating where appropriate, and monitoring of sensitive species in the project area. The survey, translocating, and monitoring protocols shall be documented and submitted to the Edwards AFB Natural Resources Manager for comments and approval prior to initiation of work activities. Survey and monitoring data shall be recorded and submitted to the Edwards AFB Natural Resources Manager.<br><br>**MM 3.5-5a Weed Management.** Weed Management will be consistent with the EAFB Integrated Pest Management Plan and will be implemented to reduce the potential for the introduction or increase of invasive plant species during construction, operation and maintenance, and decommissioning of the proposed project. Weed Management will conform to the Integrated Natural Resources Management Plan for areas within the base boundaries and will include measures related to:<br>1. Equipment cleaning<br>2. Site soil management<br>3. Use of weed free products for erosion control<br>4. Control methods, including both industrial controls and herbicides, identifying specific herbicides and including the Pesticide Use Proposal or a schedule for completing it<br>5. Schedule of surveys and reporting for invasive weed identification and control, including success criteria and measures to be implemented if criteria are not met.<br>**This plan will be approved by the Air Force, and Kern County prior to the start of construction.**<br><br>**MM 3.5-6a: Raven Management**. Prior to grading and construction and after operational, the following measures will be implemented to reduce Raven predation:<br>1. All trash and food items will be disposed of in common raven-proof containers, and regularly removed from the project site to reduce attraction of common ravens. | |

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| | | 2. Water tanks and trucks will be maintained in good working order and free of leaks so common ravens will not be attracted to standing water.<br><br>**MM 3.5-7a: Bird Conservation Strategy.** To mitigate for potential impacts to special-status birds and birds protected under the Migratory Bird Treaty Act and California Fish and Wildlife Code during construction activity, the following measures shall be implemented as part of the approval for a grading or building permit:<br>1. The Migratory Bird Treaty Act (MBTA) protects most birds and their active nests (nests with egg or young). Disturbance of an active bird nest with eggs/fledglings or a burrowing owl burrow is not permitted.<br>2. The proponent/contractor shall develop protocols for surveying and monitoring of migratory birds during both nesting and non-nesting seasons for all related work activities that may potentially harm/harass migratory birds or their active nests. The survey and monitoring protocols shall be documented and submitted to the Kern County Planning and Natural Resources Department and to the Edwards AFB Natural Resources Manager for comments and approval prior to initiation of work activities.<br>3. During the avian breeding season (1 February – 31 August), a qualified biologist shall conduct a preconstruction avian nesting survey no more than 3 days prior to initial vegetation clearing. Surveys need not be conducted for the entire project site at one time; they may be phased so that surveys occur within 3 days prior to clearing of specific areas of the site. No pre-construction surveys are required outside of the avian breeding season.<br>4. The surveying biologist must be qualified to determine the species, status, and nesting stage without causing intrusive disturbance. At no time shall the biologist be allowed to handle the nest or its eggs. The survey shall cover all reasonably potential nesting locations on and within 500 feet of the project site, if feasible—this includes ground nesting species, such as California horned lark and killdeer, all shrubs that could support nests, and suitable raptor nest sites such as nearby trees and power poles. Access shall be granted on private onsite properties prior to conducting surveys on private land. If access is not obtainable, biologists shall survey these areas from the nearest vantage point with use of spotting scopes or binoculars.<br>5. If construction is scheduled to occur during the non-nesting season (September 1 to January 31), no preconstruction surveys or additional measures are required.<br>6. If construction begins in the non-breeding season and proceeds continuously into the breeding season, no surveys are required so long as all suitable nesting sites have been cleared from the site during the non-nesting season and no new sites have been created.<br>7. If active nests are found, the proponent/contractor qualified wildlife biologist will determine an appropriate no-disturbance buffer requirement. If the nest(s) are found in an area where ground disturbance is scheduled to occur, the project operator shall avoid the area either by delaying ground disturbance in the area until a qualified wildlife biologist has determined that the birds have fledged or by relocating the project component(s) to avoid the area. All no-disturbance buffers shall be delineated in the field with visible flagging or fencing material.<br>8. The applicant shall install power lines in conformance with Avian Power Line Interaction Committee (APLIC) standards for electrocution-reducing techniques as outlined in *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC, 2006), and for collision-reducing techniques as outlined in *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC, 2012), or any superseding document issued by APLIC. The applicant shall monitor for new versions of the APLIC collision and electrocution guidelines and update designs or implement new | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | measures as needed during project construction, provided these actions do not require the repurchase of previously ordered power line structures. Bird diverters and anti-electrocution features shall be maintained for the life of the project. Details of design components of bird diverters and anti-electrocution features shall be indicated on all construction plans.<br>9. No rodenticides shall be used on the property. All uses of herbicidal compounds shall be approved by the Edwards AFB Natural Resources Manager, comply with Edwards AFB reporting requirements, observe label and other restrictions mandated by the United States Environmental Protection Agency, California Department of Food and Agriculture, and state and federal legislation, and be applied by qualified personnel.<br>10. All meteorological and communication towers shall be of monopole design to avoid the use of guy wires to reduce bird collision, injury, or death.<br>11. All solar mount poles, fencing poles, or other hollow vertical structures shall be capped immediately after installation to prevent bird entrapment and death<br>12. The proponent will develop a Bird Conservation Strategy (BCS) using data collected as part of the biological surveys of the site and any data from nearby solar and wind projects that may be relevant. The BSC shall specify one year of post-construction mortality monitoring.<br>13. The proponent shall develop and implement a wildlife incident reporting program.<br>**MM 3.5-8a: Desert Tortoise Oversight.** The following measures are in accordance with the terms and conditions of the U.S. Fish and Wildlife Service Biological Opinion for: Operations and Activities at Edwards Air Force Base, California (8-8-14-F-14) regarding the effects on the federally threatened desert tortoise and its critical habitat.<br>1. This project will require oversight by a proponent-provided authorized biologist who is approved by the U.S. Fish and Wildlife Service (USFWS) to implement the USFWS Biological Opinion for: Operations and Activities Edwards Air Force Base, California (8-8-14-F-14). The authorized biologist will oversee construction activities as well as all activities conducted prior to installation of desert tortoise exclusion fencing, and will remain available to respond to maintenance activities as necessary. The proponent shall submit a request for authorized biologist approval to the Kern County Planning and Edwards AFB Natural Resource Manager at least 3 months prior to commencement of project activities. All incidents of non-compliance in accordance with the biological opinion or permit must be recorded and reported to the Kern County Planning and Natural Resources Department and to the Edwards AFB Natural Resource Manager.<br>2. If the authorized biologist is unable to perform all required monitoring/surveys, the proponent shall provide desert tortoise monitors. Desert tortoise monitors shall be approved by the authorized biologist to monitor project activities within desert tortoise habitat, ensure proper implementation of protective measures, and record and report desert tortoise and sign observations in accordance with approved protocol. The monitors will report incidents of noncompliance in accordance with a biological opinion or permit, move desert tortoises from harm's way when desert tortoises enter project sites and place these animals in "safe areas" pre-selected by authorized biologists or maintain the desert tortoises in their immediate possession until an authorized biologist assumes care of the animal. Monitors shall not conduct clearance surveys or other specialized duties of the authorized biologist unless directly supervised by an authorized biologist; "directly supervised" means the authorized biologist has direct voice and sight contact with the monitor. The desert tortoise monitor may directly supervise other personnel to assist with surveying for desert tortoises when deemed necessary. | |

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| | | 3. Authorized biologists are the only individuals approved to handle desert tortoises on base. However, nothing prohibits any individual from handling a desert tortoise when necessary to protect the safety or health of the animal when it is in immediate danger.<br>4. All project personnel working in the area shall attend desert tortoise awareness training prior to commencing work or visiting the work site. Training will be provided by the proponent's authorized biologist and documented per the Kern County Planning and Natural Resources Department and the Edwards AFB Natural Resource Manager instructions.<br>5. The *Desert Tortoise Handout* (DT Handout 412 TWPA Release #18150 20180316) shall be distributed to vehicle and equipment drivers accessing the project area and also be posted at the project site.<br>6. A desert tortoise pre-activity survey by the contractor's authorized biologist is required prior to commencing work. Any sightings of desert tortoises, signs of desert tortoises, or desert tortoise burrows found within the project area shall be reported immediately to the Edwards AFB Natural Resource Manager.<br>7. In the event that project development or activities would result in the clearing of a large area of suitable desert tortoise habitat, desert tortoises will be relocated from these sites to other habitat. All translocated desert tortoises will be monitored to determine the success of the relocation. Translocation and monitoring will be performed under the direct supervision of the contractor's authorized biologist in coordination with the Edwards AFB Natural Resources Manager.<br>8. The project work areas will be fenced, flagged, or marked to define the limit of project activities.<br>9. Vehicles will generally remain on previously established roads and within staging areas and follow flagged off-road routes that have been surveyed or cleared of desert tortoises. When driving off-road, operators will minimize disturbance to vegetation and not exceed 10 miles per hour. All personnel will inspect under vehicles for desert tortoises prior to operating them in desert tortoise habitat.<br>10. Project activities between dusk and dawn will be confined to areas free of vegetation and cleared of desert tortoises by contractor personnel who are authorized as described above.<br>11. Open excavations will be checked regularly by the contractor personnel who are authorized as described above will remove any trapped animals. Open excavations will be covered, backfilled, wildlife ramps placed, or fenced at the end of each workday. At the ends of a ditch or trench, a 3: 1 slope will be created to allow wildlife to exit should they become trapped in the ditch or trench.<br>12. Any pipes stored within the area shall be capped on open ends or elevated at least 12 inches off the ground to prevent entry by desert tortoise or other wildlife. In the event capping is not feasible, materials will be inspected prior to movement to ensure no wildlife is trapped prior to moving materials. Installation of fencing along roadways will be implemented in areas deemed hazardous to desert tortoises to prevent injury or mortality.<br>13. Records will be kept according to Edwards AFB Natural Resources Manager instructions and submitted monthly to the Kern County Planning and Natural Resources Department and to Edwards AFB Natural Resources Manager regarding incidents of non-compliance with the biological opinion, acres of desert tortoise habitat disturbance, acres of habitat restoration, wildlife sightings, wildlife injury, wildlife mortality, and desert tortoise handling. Submission of Geographic Information System (GIS) deliverables will be per the most current Edwards Air Force Base Standards for GIS Deliveries. | |

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| | | **MM 3.5-9a: Nesting Birds and Raptors.**<br>The following survey actions shall be complied with:<br>1. If construction is scheduled to commence during the non-nesting season (i.e., September 1 to January 31), no preconstruction surveys or additional measures are required.<br>2. To avoid impacts to nesting birds in the project site, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within the project site for construction activities that are initiated during the breeding season (i.e., February 1 to August 31). The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance.<br>a. The raptor survey shall focus on potential nest sites (e.g., cliffs, large trees, windrows) within a 0.5-mile buffer around the project site.<br>b. Surveys shall be conducted no more than 3 days prior to construction activities.<br>c. Surveys shall not be conducted for the entire project site at one time; they must be phased so that surveys occur shortly before a portion of the project site is disturbed.<br>3. If active nests are found, the proponent/contractor qualified wildlife biologist will determine an appropriate no-disturbance buffer requirement and no construction within the buffer allowed until the Lead Biologist or onsite qualified biological monitor has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). Encroachment into the buffer may occur at the discretion of the Lead Biologist or onsite qualified biological monitor.<br><br>**MM 3.5-10a: Preconstruction Clearance Surveys.** Preconstruction surveys for desert kit fox, American badger, and Mohave ground squirrel shall be conducted within the project boundaries by the Lead Biologist or qualified biological monitor within 14 days of the start of any vegetation clearing or grading activities. Methodology for preconstruction surveys shall be consistent with standard industry practice for conducting these surveys, and may be conducted simultaneously with preconstruction surveys for desert tortoise and burrowing owl. Surveys shall not be conducted for all areas of suitable habitat at one time; they must be phased so that surveys occur within 30 days of the portion of the project site being disturbed. If any evidence of occupation of the project site by desert kit fox or American badger is observed, a buffer shall be established by a qualified biological monitor that results in sufficient avoidance, as described below:<br>1. Preconstruction surveys shall be conducted by the Lead Biologist or onsite qualified biological monitors for the presence of American badger or desert kit fox dens within 14 days prior to commencement of construction activities. The surveys shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes desert scrub habitats. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 14 days prior to that portion of the project site disturbed. If potential dens are observed and avoidance is feasible, the following buffer distances shall be established prior to construction activities (except for use of existing roads by rubber-tired vehicles):<br>a. Desert kit fox or American badger potential den: 30 feet.<br>b. Desert kit fox or American badger active den: 100 feet.<br>c. Desert kit fox occupied natal den (during natal season): 500 feet. Natal season for desert kit fox is January 1 through August 31. Active natal dens may become inactive prior to August 31. The Lead Biologist or qualified biological monitor can determine natal den status through remote camera monitoring, in consultation with CDFW. | |

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| | | d. If avoidance of the potential dens is not possible, the following measures are required to avoid potential adverse effects to the American badger and desert kit fox:<br>i. If the Lead Biologist or onsite qualified biological monitor determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent American badgers or desert kit foxes from reusing them during construction.<br>ii. If the Lead Biologist or onsite qualified biological monitor determines that potential dens may be active, an onsite passive relocation program shall be implemented for non-natal dens. This program shall consist of determining status of the den (active natal or active non-natal), excluding American badgers or desert kit foxes from occupied burrows by installation of one-way doors at burrow entrances, monitoring of the burrow for 7 days to confirm usage has been discontinued, and excavation and collapse of the burrow to prevent reoccupation. After the Lead Biologist or onsite qualified biological monitor determines that American badgers or desert kit foxes have stopped using the dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent reuse during construction. Passive relocation of natal dens is limited to outside the natal season (January 1 through August 31) or after the Lead Biologist or onsite qualified biological monitor documents that the natal den has become inactive.<br>iii. During fencing, vegetation clearing, and initial grading activities, daily monitoring reports shall be prepared by the onsite qualified biological monitors. The Lead Biologist shall prepare a summary monitoring report documenting the effectiveness and practicality of the protection measures that are in place and making recommendations for modifying the measures to enhance species protection, as needed. The report shall also provide information on the overall activities conducted related to biological resources, including the Worker Environmental Awareness Training and Education Program, preconstruction surveys, monitoring activities, and any observed special-status species, including injuries and fatalities. These monitoring reports shall be submitted to the Kern County Planning and Natural Resources Department and to the Edwards AFB Natural Resources Manager on a monthly basis along with copies of all survey reports.<br>If Mohave ground squirrels are found during pre-construction surveys, measures for avoiding and minimizing impacts to Mohave ground squirrels shall include the following:<br>• Methods demonstrated to be suitable for excluding Mohave ground squirrels from the work area, such as fencing.<br>• Measures and procedures related to regular monitoring of construction for presence of Mohave ground squirrels.<br>• A requirement to immediately cease work if a Mohave ground squirrel occurs in a work area.<br>• Requirements for worker education material as it pertains to Mohave ground squirrels.<br>• Reporting requirements to include providing any reports to the Edwards AFB Natural Resources Manager.<br>• Approved Methods for translocating Mohave ground squirrels occupying areas where avoidance is not feasible.<br>• Identification of suitable Locations for relocating Mohave ground squirrels.<br>**If relocation of Mohave ground squirrel is necessary, the applicant shall coordinate with CDFW and the Edwards AFB Natural Resources Manager.** | |

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| | | **MM-3.5-11a: Burrowing Owl Surveys and Avoidance/Relocation**.<br>1. No more than 14 days prior to ground-disturbing activities (vegetation clearance, grading), a qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience) shall conduct a pre-construction take avoidance survey on and within 200 meters (656 feet) of the construction zone (where legally accessible) to identify occupied breeding or wintering burrowing owl burrows.<br>2. The take avoidance burrowing owl survey shall be conducted in accordance with the Staff Report on Burrowing Owl Mitigation (2012 Staff Report; CDFW, 2012) and shall consist of walking parallel transects 7 to 20 meters (23 to 66 feet) apart, adjusting for vegetation height and density as needed, and noting any burrows with fresh burrowing owl sign or presence of burrowing owls. Note that owl sign can wash away during rain events and may take several days to build back up again. As each burrow is investigated, biologists shall also look for signs of American badger and desert kit fox. Copies of the burrowing owl survey results shall be submitted to the Kern County Planning and Natural Resources Department and the Edwards AFB Natural Resources Manager prior to ground-disturbing activities.<br>a. If burrowing owls are detected on site, no ground-disturbing activities shall be permitted within 200 meters (656 feet) of an occupied burrow during the breeding season (February 1 to August 31), unless otherwise authorized by CDFW. During the nonbreeding season (September 1 to January 31), ground-disturbing work can proceed near active burrows as long as the work occurs no closer than 50 meters (165 feet) from the burrow or as allowed by CDFW. Depending on the level of disturbance and proposed measures, a smaller buffer may be established in consultation with Lead Biologist.<br>b. If avoidance of active burrows is infeasible during the nonbreeding season, then a Burrowing Owl Relocation Plan will be developed in coordination with the Edwards AFB Natural Resources Manager. If the owls are not in danger of direct impact, then the default should always be to allow the owls to decide whether they would like to leave the existing burrow site. A component of this is to provide replacement burrows at a 2:1 ratio in nearby suitable habitat, or verify that suitable unoccupied burrows are available nearby. If the owls must be relocated, then before breeding behavior is exhibited and after the burrow is confirmed empty by site surveillance and scoping, a qualified biologist shall implement a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 CDFW Staff Report on Burrowing Owl Mitigation (CDFW, 2012). Passive relocation consists of excluding burrowing owls from occupied burrows and providing suitable artificial burrows nearby for the excluded burrowing owls. Three consecutive days of negative game camera results are needed to verify absence. This is further supported, by scoping with an endoscope immediately prior to burrow dismantling. It is important to completely collapse the burrow network when closing the burrow.<br>**MM 3.5.12a: Trench Monitoring Requirements.** During construction and decommissioning of the project, all trenches or holes shall be provided with one or more escape ramps constructed of earthen fill or wooden planks (with a minimum 1-foot in width) for the protection of wildlife species and must be inspected by the Lead Biologist, qualified biological monitor, designated compliance manager, project operator, or contractor prior to being filled.<br>1. Any such features that are left open overnight will be searched each day and prior to construction activities to ensure no animals are trapped. Work will not continue until trapped animals have moved out of open trenches. Open excavations of any kind created during project activities shall be secured at | |

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| | | the end of each day by backfilling, placing a cover over the excavation, installing a temporary 412 CEG/CEVA-approved desert tortoise fence, and/or ramping excavations at a 3:1 slope.<br>2. All open holes, sumps, and trenches within the Project footprint shall be inspected at the beginning, middle, and end of each day for wildlife. If any animals are found in an excavation, immediately notify 412 CEG/CEVA<br>3. All trenches, holes, sumps, and other excavations with sidewalls steeper than a 1:3 slope shall be covered, when workers or equipment are not actively working in the excavation, which includes cessation of work overnight, or shall have an escape ramp of earth or a non-slip material (with a minimum 1-foot in width) with a less than 1:3 slope. Where an escape ramp is required, it shall be placed at least every 300 feet. To prevent inadvertent entrapment of wildlife, when covers are required according to the conditions outlined above, a qualified biological monitor or designated compliance manager shall oversee the covering of all excavated, trenches, holes, sumps, or other excavations with a greater than 1:4 slope of any depth with barrier material (such as hardware cloth) at the close of each working day such that wildlife are unable to dig or squeeze under the barrier and become entrapped, or excavations shall have an escape ramp of earth or a non-slip material (with a minimum 1-foot in width) with a less than 1:3 slope.<br>4. The outer 2 feet of excavation cover, shall conform to solid ground so that gaps do not occur between the cover and the ground and secured with soil staples or similar means to prevent gaps. Each morning, mid-day, the end of each day (including weekends and any other non-work days), and immediately before trenches, holes, sumps, or other excavations are back-filled, a qualified biological monitor or designated compliance manager shall thoroughly inspect for wildlife. If wildlife is observed, all activities in the vicinity shall cease and the onsite qualified biological monitor or Lead Biologist shall be consulted.<br>5. Trenches, holes, sumps, or other excavations that are covered long term shall be inspected at the beginning of each working day to ensure inadvertent entrapment has not occurred.<br>6. If any worker discovers that wildlife has become trapped, all activities in the vicinity shall cease and Lead biologist or the onsite qualified biological monitor shall be notified immediately. Project workers guided by the Lead Biologist or qualified biological monitor shall allow the trapped wildlife to escape unimpeded before activities are allowed to continue. If the entrapped animal is a federal- or state-listed species and an ITP has been acquired by the project proponent for that species or the species is covered by an existing biological opinion (BO), only a Designated Biologist and/or Authorized Biologist as defined in the terms of the ITP(s) or BO may capture and relocated the animal in accordance with the project ITP or BO provisions. If the entrapped animal is a Federal- or State-listed species and an ITP or BO has not been acquired by the project proponent for that species, the project proponent should contact the appropriate wildlife agency immediately.<br>7. A log shall be kept and provided to the Kern County Planning and Natural Resources Department and the Edwards AFB Natural Resources Manager monthly during construction and decommissioning indicating compliance. | |

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| **Impact 3.5-2**: The project would have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. | Potentially significant | Mitigation Measures MM 3.5-1a through MM 3.5-12a | Less than significant |
| **Impact 3.5-3**: The project would have a substantial adverse impact on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. | Potentially significant | Mitigation Measures MM 3.5-1a and MM 3.5-3a | Less than significant |
| **Impact 3.5-4**: The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. | Less than significant | Mitigation Measures MM 3.5-1a through MM 3.5-12a | Less than significant |
| **Impact 3.5-5**: The project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. | Potentially significant | **MM 3.5-13a: Joshua Tree Woodland Preservation.** If avoidance of Joshua tree woodland (defined as areas with 10 percent or more of coverage by Joshua tree) is not feasible, then a Joshua Tree Woodland Preservation Plan, approved by the Kern County Planning and Natural Resources Department and the Edwards AFB Natural Resources Manager, shall be required. The plan shall detail the number of acres Joshua trees woodland to be removed and outline a compensatory mitigation approach based on one or a combination of the following options: (1) payment of an in lieu fee to or purchase of mitigation credits from a third-party organization; or (2) the purchase of mitigation lands at a minimum 1:1 ratio for each acre of impacted Joshua tree woodlands.<br><br>If purchase of mitigation land is pursued, the following shall be completed: (1) a deed restriction, conservation easement, or similar instrument shall be established on the mitigation land; (2) a management plan to maintain habitat conditions on the site must be prepared and implemented; and (3) a non-wasting endowment sufficient to implement the management plan must be provided. The mitigation lands shall provide habitat at a 1:1 ratio for impacted Joshua tree woodlands, comparable to the woodlands to be impacted by the project (e.g., similar abundance and size of Joshua trees, similar levels of disturbance or habitat degradation, etc.). The management plan shall specify maintenance and monitoring requirements for the preserved land. Suitable mitigation lands provided for other resources may be used for Joshua tree woodland mitigation. | Less than significant |
| **Impact 3.5-6**: The project would conflict with the provisions of an | Less than significant | None required | Less than significant |

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| adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. | | | |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.5-1a through MM 3.5-13a | Less than significant |
| **3.6 Cultural and Paleontological Resources** | | | |
| **Impact 3.6-1**: The project would cause a substantial adverse change in the significance of a historical or unique archaeological resource. | Potentially significant | **MM 3.6-1a Consultation Agreement and Cultural Resources Management Plan.** The Cultural Resources Manager (CRM) for archaeology at Edwards Air Force Base in accordance with 36 CFR 800.16(y) has determined that the development of a commercial Solar Enhanced Use Lease (EUL) project is a federal undertaking with the potential to adversely affect cultural resources including archaeological sites. The EUL consists of two separate components, the power generation facility located on Edwards AFB and not to exceed 4,000 acres in size, and the gen-tie route options located off-base that will be used to transmit the generated power to a hub connected to the electrical grid up to 14 miles distant. As such, the entire project is subject to the Section 106 process with Edwards AFB acting as the lead agency for Section 106 consultation and Kern County as the lead agency for AB 52 consultation. Pursuant to 36 CFR 800.2 the Section 106 consultation will include the California State Historic Preservation Officer (SHPO), and federal and non-federally recognized tribes. The CRM will also seek additional consulting or interested parties consistent with 36 CFR 800.2(c)(5). Collectively the SHPO, Kern County, private land owners, the EUL developer, tribes, consulting and interested parties will be from here forward referred to as stakeholders. Because identification of historic properties/historical resources and adverse effects/significant impacts under Section 106 of the NHPA/CEQA, respectively, is complete, the CRM will enter into a Memorandum of Agreement (MOA) with the State Historic Preservation Officer and consulting parties according to 36 CFR 800.6(b) and (c).<br><br>The MOA shall identify the actions required to minimize and resolve adverse effects, including the requirement for preparation of a Historic Properties Treatment Plan (HPTP). The HPTP will require and guide implementation of MM 3.6-2a through MM 3.6-7a for the Proposed Action and Alternatives, and MM 3.6-1b through MM 3.6-4b, and MM-3.6-8b for the gen-tie; these mitigation measures provide performance standards and feasible mitigation to ensure that impacts to cultural resources will be less than significant. The HPTP will outline the procedures for treatment of known historic properties/historical resources and inadvertent discoveries, as well as archaeological monitoring protocols, and outline the requirements for retention of a Secretary of Interior qualified archaeologist to implement mitigation, as appropriate. Development of the MOA and HPTP and in executing the Section 106 process in consultation with all stakeholders ensures that Edwards AFB will fulfill its Section 106 obligations and allow a Record of Decision to be issued, and will ensure that the County's CEQA obligations are satisfied for mitigating significant impacts to a level below significance.<br><br>The reports documenting the implementation of the HPTP shall be submitted to the Kern County Planning and Development Director and Southern San Joaquin Valley Archaeological Information Center at California State University, Bakersfield, and to the CRM. | Less than significant |

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| | | **MM 3.6-2a: Data Recovery and Avoidance.** Where preservation in place of a significant archaeological resource (including Unique Archaeological Resources as defined in CEQA) is not feasible, a qualified archaeologist, in consultation with the Cultural Resource Manager (CRM), County of Kern, consulting tribes, and the project applicant, shall complete archaeological data recovery. This excludes archaeological resources found to contain human remains and/or funerary objects or sacred objects, which will be treated according to the NAGPRA Plan of Action. The standard for completion of data recovery may vary for individual archaeological sites, but is understood herein to be collection of a statistically representative sample of the archaeological deposits such that data redundancy is achieved and the unique properties of the archaeological sites are addressed. Implementation of data recovery mitigation shall include the following steps:<br>1. In accordance with the requirements of mitigation measure (MM) 3.6-2, prepare a research design and archaeological data recovery plan prior to project-related ground disturbance for the recovery of resources in unavoidable sites that will capture those categories of data for which the site is significant, and implement the data recovery plan.<br>2. The data recovery phase shall focus on recovering archaeological data sufficient to mitigate the destruction of a portion or the entire site within the area of potential effects (APE).<br>3. If, in the opinion of the qualified archaeologist and in light of the data available, the significance of the site is such that data recovery cannot capture the values that qualify the site for inclusion on the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR), the applicant shall reconsider project plans in light of the high value of the cultural resource, and implement more substantial modifications to the proposed project that shall allow the site to be preserved intact, such as project redesign or capping the site with fill soil.<br>4. Standard archaeological collection and/or excavation units may be used, with methods consistent with those employed during previous investigations in the region and with Secretary of Interior's standards. Following completion of the excavations, all cultural materials shall be washed, cataloged, and analyzed. Technical analyses may include artifact analysis, radiocarbon dating, obsidian hydration, pollen and protein residue, and other analyses as needed to describe the cultural materials and archaeological deposits. Prior to artifact processing, the consulting tribes will be afforded the opportunity to identify objects/materials that should not be exposed to washing and certain kinds of destructive analyses and that may be treated according to separate, culturally-specific and appropriate methods and disposition. A data recovery report shall be prepared and filed with the CRM, and the California Historical Resources Information System Information Center at California State University, Bakersfield.<br>5. The CRM shall provide for the permanent curation of recovered materials from Edwards Air Force Base (AFB) property. Curation does not negate artifact relocation described under MM 3.6-7a, rather artifact relocation and reburial will be the preference whenever possible.<br>For archaeological sites considered individually eligible for NRHP/CRHR listing (or considered contributors to the Bissell Basin Archaeological District) that can be avoided, reasonable protective measures shall be provided, including protective fencing around an avoided resource with an appropriate buffer, silt fencing to avoid indirect effects through project-related runoff, and other measures as applicable. In certain instances, avoidance through capping using sterile fill matrix, use of rubber mats, or other measures may be deemed appropriate to achieve avoidance. All decisions regarding the specific measures used to achieve preservation in place and capping will be the result of collaboration amongst consulting parties and the Air Force. | |

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| | | General avoidance and capping are two available avoidance measures on Edwards AFB property and on lands under County of Kern jurisdiction. These forms of avoidance satisfy CEQA Guidelines Section 15125.4(b)(3).<br><br>**MM 3.6-3a: Consultation Agreement and Cultural Resource.** Archaeological and Native American Resources Monitoring. Archaeological and Native American monitoring are both subject to consultation with the stakeholders under Section106. As such, the requirements of various stakeholders must be considered and accommodation made wherever feasible. Therefore, specific archaeological and Native American monitoring details cannot be included herein. However, at a minimum it is expected that the developer shall retain a qualified archaeological monitor and a Native American monitor for project-related ground disturbing activities for the purpose of identifying and avoiding adverse effects to significant archaeological resources. The HPTP (MM 3.6-1a) shall provide details on archaeological and Native American monitoring, including monitor rotation schedules, lines of authority and communication, monitoring procedures and protocols, and documentation.<br><br>Ground-disturbing activities include, but are not limited to, brush clearance, grubbing, excavation, trenching, grading, and drilling, or other activities deemed appropriate for monitoring identified in the consultation process. Areas requiring monitoring and the level of monitoring shall be developed by the Edwards AFB Cultural Resources Manager in coordination with the Applicant, the qualified archaeologist and consulting tribes, and shall be detailed in the MOA and HPTP for resources on Edwards AFB (as required by Mitigation Measure MM 3.6-1a). Any archaeological monitors shall be, or work under the direct supervision of, a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's standards for professional archaeology and shall be approved by the Air Force. The monitors shall be familiar with the types of historical and prehistoric resources that could be encountered within the project area.<br><br>The archaeological monitor shall ensure that personnel performing ground-disturbing activities are displaying the appropriate decal on their hardhat demonstrating their CR Awareness training under Mitigation Measure MM 3.6-5a. The archaeological monitors shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis. The archaeological monitors shall be present on the project site according to a schedule as detailed in the MOA and HPTP for resources on Edwards AFB (as required by Mitigation Measure MM 3.6-1a). The monitors shall maintain a daily log of activities, which will be appended to a final monitoring report that shall be submitted to the Edwards AFB Cultural Resources Manager, Kern County Planning and Natural Resources Department, and Southern San Joaquin Valley Archaeological Information Center. Specific monitoring reporting procedures shall be detailed in the MOA and HPTP for resources on Edwards AFB, (as required by Mitigation Measure MM 3.6-1a).<br><br>**MM 3.6-4a: Inadvertent Discoveries.** During project-level construction, operation and maintenance, and decommissioning, should cultural resources be discovered, all activity within 100 feet of the find shall stop and a qualified archaeologist shall be contacted to assess the significance of the find. The Cultural Resource Manager or the Kern County Planning and Community Development Department shall also be contacted. If the qualified archaeologist, in consultation with the Cultural Resource Manager or Kern County Planning and Community Development Department and Consulting Native American tribes, determines the resource is significant (i.e., qualifies as a Historic Property, Historical Resource, unique archaeological resource, TCR), or a contributor to the Bissell Basin Archaeological District, then the archaeologist shall determine, in consultation with the Cultural Resource Manager or Kern County Planning and Community Development Department, appropriate avoidance measures or other appropriate mitigation. Preservation in place shall be the preferred manner of mitigation to avoid effects to significant cultural resources. If it is demonstrated that resources cannot be feasibly avoided, the qualified archaeologist shall implement the provisions for mitigative | |

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| | | treatments detailed in the MOA (as required by Mitigation Measure MM 3.6-1a). Work shall not resume within 100 feet of the discovery until permission is received from the Cultural Resource Manager (solar array project area) or Kern County Planning and Community Development Department (gen-tie line route project area). In the event of inadvertent discovery of human remains or potential funerary objects or sacred objects, all work shall be halted within a 100-foot radius and temporary protective measures shall be implemented.<br><br>On non-federally owned land, the project proponent shall immediately halt work, contact the Kern County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.4 (e)(1) of the California Environmental Quality Act Guidelines. If the County Coroner determines that the remains are Native American, the coroner shall contact the Native American Heritage Commission, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by Assembly Bill 2641). The Native American Heritage Commission shall designate a most likely descendent for the remains per Public Resources Code 5097.98. Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendent regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. If the remains are determined to be neither of forensic value to the Coroner, nor of Native American origin, provisions of the California Health and Safety Code (7100 et. seq.) directing identification of the next-of-kin will apply.<br><br>On federally owned land, the Air Force shall be notified and human remains and associated funerary objects shall be treated pursuant to the Native American Graves Protection and Repatriation Act and in accordance with the MOA and HPTP, and the NAGPRA Plan of Action (included as part of the HPTP).<br><br>**MM 3.6-5a: Worker Cultural Awareness Training Program.** Prior to the commencement of ground-disturbing activities, and for the duration of construction activities, a Worker Cultural Awareness Training Program shall be provided to all construction personnel prior to their commencing work at the project site.<br><br>1. The training shall be prepared and conducted by a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology. Representatives from the consulting Native American tribes shall also provide training, at their discretion. The training may be in the form of a video.<br><br>2. A sticker shall be placed on hard hats indicating that the worker has completed the environmental/cultural training. Construction personnel shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker.<br><br>3. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms shall be submitted to the Air Force Cultural Resources Manager.<br><br>The purpose of the Cultural Awareness Training Program shall be to inform and train construction personnel of the types of cultural resources that may be encountered during construction, and to bring awareness to personnel of actions to be taken in the event of a cultural resources discovery. This may include: a discussion of applicable cultural resources statutes, regulations and related enforcement provisions; an overview of the prehistoric and historic environmental setting and context, as well as current cultural information regarding local tribal groups; samples or visuals of artifacts that might be found in the project area; a discussion of what prehistoric and historic archaeological deposits look like at the surface and when exposed during | |

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| | | construction; and procedures to be followed in the event of an inadvertent discovery, as specified by the MOA and HPTP (MM 3.6-1a).<br><br>**MM 3.6-6a Public Outreach and Education Program.** The MOA and HPTP (MM 3.6-2) shall outline the specific requirements for implementation of a Public Outreach and Education Program. The goal of this program will be to provide members of the public, including tribal members, media for interacting with the prehistoric aboriginal past of the Bissell Basin and surrounding region. Media platforms will vary, but will include hard media, such as story-telling displays, displays of archaeological material in an interpretive format (may include traveling displays), and digital media (e.g., internet based content). The HPTP will identify parties responsible for contributing content and producing deliverables.<br><br>**MM 3.6-7a Relocation of Cultural Material.** The MOA and HPTP (MM 3.6-2) shall outline the specific requirements and methods for implementation of an artifact relocation plan, a plan that shall be developed prior to project implementation and shall be carried out prior to construction for previously identified resources and during construction for inadvertent discoveries. The HPTP will specify the decision making process required to identify artifacts in field settings suitable for relocation, versus those that require formal relocation or repatriation. The CRM and consulting tribes have determined that not all cultural material that will be impacted by project construction requires formal curation. Moreover, recognizing that these artifacts will be disturbed during construction, the collection of disturbed artifacts and placement in a precisely recorded nearby location is considered suitable treatment of these materials, particularly during archaeological and tribal monitoring of construction. | |
| **Impact 3.6-2**: The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. | Potentially significant | **MM 3.6-8a: Paleontological Resources Mitigation and Monitoring Plan.** The developer shall retain a qualified paleontologist to prepare a Paleontological Resources Mitigation and Monitoring Plan for implementation during construction. The minimum requirement for professional paleontological work is a 4-year undergraduate program and Master of Science degree, although a doctoral degree may be required for certain specialties; a qualified paleontologist is one that has experience in research, field, and laboratory methods for paleontological resources, including experience in fossil salvage, stratigraphy, fossil preparation, and identification, with experience in California. The Paleontological Resources Mitigation and Monitoring Plan shall be submitted to the Air Force for review and approval prior to the start of grading or construction and shall include the following:<br><br>1. Procedures for the discovery, recovery, and salvage of paleontological resources encountered during construction, if any, in accordance with standards for recovery established by the Society of Vertebrate Paleontology.<br>2. Verification that the developer has an agreement with a recognized museum repository (such as the Natural History Museum of Los Angeles County), for the disposition of recovered fossils and that the fossils shall be prepared prior to submittal to the repository as required by the repository (e.g., prepared, analyzed at a laboratory, curated, or cataloged).<br>3. Description of monitoring reports that will be prepared, which shall include daily logs and a final monitoring report with an itemized list of specimens found to be submitted to the Air Force and the Natural History Museum of Los Angeles County within 90 days of the completion of monitoring.<br><br>**MM 3.6-9a: Worker Paleontological Resources Awareness Training Program.** Prior to the commencement of ground-disturbing activities, and for the duration of construction activities, a Worker Paleontological Awareness Training Program shall be provided to all construction personnel prior to their commencing work at the project site. The training may be performed in concert with the archaeological/cultural resources training (MM 3.6-4a) at the onset of the project. The training shall be prepared and conducted by a qualified paleontologist. The training may be in the form of a video. The training may be discontinued when | Less than significant |

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| | | ground disturbance is completed or suspended, but must resume when ground-disturbing activities resume. A sticker shall be placed on hard hats indicating that the worker has completed the environmental/cultural training. Construction personnel shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms shall be submitted to the Edwards AFB Cultural Resource Manager.<br><br>The purpose of the Paleontological Awareness Training Program shall be to inform and train construction personnel of the types of paleontological resources that may be encountered during construction, and to bring awareness to personnel of actions to be taken in the event of a paleontological resources discovery. This may include: a discussion of applicable paleontological resources statues, regulations and related enforcement provisions; samples or visuals of fossils that might be found in the project area; implementation of the Paleontological Resources Mitigation and Monitoring Plan; and procedures to be followed in the event of an inadvertent discovery.<br><br>**MM 3.6-10a: Paleontological Resources Monitoring.** The developer shall provide for a qualified paleontologist or an individual working under direct supervision of a qualified paleontologist to monitor construction activities in areas where deeper excavations may be needed (greater than 10 feet). The duration and timing of the monitoring, which shall be set in the Paleontological Resources Mitigation and Monitoring Plan, shall be determined by the qualified paleontologist, in consultation with the Air Force and based on the grading plans. Initially, all excavation or grading activities deeper than 10 feet shall be monitored. However, during the course of monitoring, if the paleontologist can demonstrate that the level of monitoring should be reduced, the paleontologist, in consultation with the Air Force, may adjust the level of monitoring to circumstances warranted. If a resource is encountered, the monitor will implement the procedures of the Paleontological Resources Mitigation and Monitoring Plan. If recovery of a large or unusually productive fossil occurrence is necessary, the following actions shall be taken:<br>1. The paleontological monitor shall immediately notify the project developer, who shall contact the Air Force.<br>2. Construction activities in the immediate vicinity of the site shall stop until authorization for work to continue is provided by the Air Force.<br>3. Treatment and subsequent donation of fossils to a repository, along with the preparation of a report documenting the absence or discovery of fossil-related resources will be performed in accordance with the Paleontological Resources Mitigation and Monitoring Plan. | |
| **Impact 3.6-3**: The project would disturb human remains, including those interred outside of formal cemeteries. | Potentially significant | Implement Mitigation Measure MM 3.6-4a: Inadvertent Discoveries. | Less than significant |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.6-1a through MM 3.6-11a | Less than significant |
| **3.7 Geology, Minerals, and Soils** | | | |
| **Impact 3.7-1**: The project would expose people or structures to potential substantial adverse effects, including the risk of loss, | Less than significant | **MM 3-7.1a: Conduct Geotechnical Study.** Prior to the issuance of building or grading permits for the project, the project proponent shall conduct a full geotechnical study to evaluate soil conditions and geologic hazards on the project site and submit it to the Kern County Public Works Department for review and approval. | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. | | **1.** The geotechnical study must be signed by a California-registered and licensed professional engineer and must include, but not limited to, the following:<br>a. Location of fault traces and potential for surface rupture and groundshaking potential;<br>b. Maximum considered earthquake and associated ground acceleration;<br>c. Potential for seismically induced liquefaction, landslides, differential settlement, and mudflows;<br>d. Stability of any existing or proposed cut-and-fill slopes;<br>e. Collapsible or expansive soils;<br>f. Foundation material type;<br>g. Potential for wind erosion, water erosion, sedimentation, and flooding;<br>h. Location and description of unprotected drainage that could be impacted by the proposed development; and,<br>i. Recommendations for placement and design of facilities, foundations, and remediation of unstable ground.<br>2. The project proponent shall determine the final siting of project facilities based on the results of the geotechnical study and implement recommended measures to minimize geologic hazards. The project proponent shall not locate project facilities on or immediately adjacent to a fault trace. All structures shall be offset at least 100 feet from any mapped fault trace. Alternatively, a detailed fault trenching investigation may be performed to accurately locate the fault trace(s) to avoid sighting improvements on or close to these fault structures and to evaluate the risk of fault rupture. After locating the fault, accurate setback distances can be proposed.<br>3. The Kern County Public Works Department shall evaluate any final facility siting design developed prior to the issuance of any building or grading permits to verify that geological constraints have been avoided. | |
| **Impact 3.7-2**: The project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. | Less than significant | None required | Less than significant |
| **Impact 3.7-3**: The project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground failure, including liquefaction. | Less than significant | None required | Less than significant |
| **Impact 3.7-4**: The project would result in substantial soil erosion or the loss of topsoil. | Less than significant | None required | Less than significant |
| **Impact 3.7-5**: The project is located on a geologic unit or soil | Less than significant | None required | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| that is unstable, or that would become unstable as result of the project, and potentially result in onsite or onsite landslide, lateral spreading, subsidence, liquefaction, or collapse. | | | |
| **Impact 3.7-6:** The project is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. | Less than significant | None required | Less than significant |
| **Impact 3.7-7**: The project has soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater. | Less than significant | **MM 3.7-2a: Assess Soil Permeability.** Prior to the issuance of any building permit for the operation and maintenance facilities, the project proponent shall obtain all required permits and approvals from Kern County Environmental Health Services Division, and shall implement all required conditions regarding the design and siting of the septic system and leach fields. A site specific analysis of soil permeability shall be performed by a California licensed Geotechnical Engineer that demonstrates project soils can adequately support the use of a septic disposal system. A plan shall be submitted to the Kern County Planning and Natural Resources Department indicating siting or the septic system and leach fields as approved by the Kern County Environmental Health Services Division. | Less than significant |
| **Impact 3.7-8**: The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. | Less than significant | None required | Less than significant |
| **Impact 3.7-9**: The project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. | Less than significant | None required | Less than significant |
| **Cumulative** | Less than significant | None required | Less than significant |
| **3.8 Greenhouse Gas Emissions** | | | |
| **Impact 3.8-1**: The project would generate greenhouse gas emissions, either directly or indirectly, that may have an impact on the environment. | Less than significant | None required | Less than significant |
| **Impact 3.8-2**: The project could conflict with an applicable plan, | Less than significant | None required | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| policy, or regulation adopted for the purpose of reducing the emissions of GHGs. | | | |
| **Cumulative** | Less than significant | None required | Less than significant |
| **3.9 Hazardous Materials and Safety** | | | |
| **Impact 3.9-1**: The project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. | Potentially significant | **MM 3.9-1a: Hazardous Materials Business Plan.** Prior to the issuance of grading or building permits, the project proponent shall prepare a Hazardous Materials Business Plan and submit it to Kern County for review and approval.<br>1. The Hazardous Materials Business Plan shall:<br>a. Delineate hazardous material and hazardous waste storage areas.<br>b. Describe proper handling, storage, transport, and disposal techniques.<br>c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill.<br>d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction.<br>e. Establish public and agency notification procedures for spills and other emergencies including fires.<br>f. Include procedures to avoid or minimize dust from existing residual pesticide and herbicide use that may be present on the site.<br>2. The project proponent shall provide the Hazardous Materials Business Plan to all contractors working on the project and shall ensure that one copy is available at the project site at all times.<br>3. A copy of the approved Hazardous Materials Business Plan shall be submitted to the Air Force.<br>**MM 3.9-2a: Spill Prevention, Control, and Countermeasure Plan.** Prior to the issuance of grading or building permits by the County and/or a Notice to Proceed from the Air Force, the developer shall prepare and submit a Spill Prevention, Control, and Countermeasure Plan to Kern Count and to the Air Force for review. The plan will be for the storage and use of transformer oil, gasoline, or diesel fuel at the site in quantities of 660 gallons or greater. The purpose of the plan will be to mitigate the potential effects of a spill of transformer oil, gasoline, or diesel fuel. The plan shall include design features of the project that will contain accidental releases of petroleum and transformer oil products from onsite fuel tanks and transformers.<br>**MM 3.9-3a**: **Herbicide Control.**<br>1. The project proponent shall continuously comply with Edwards Integrated Pest Management Plan and the following:<br>a. The construction contractor or project personnel shall use herbicides that are approved for use in California, and are appropriate for application adjacent to natural vegetation areas (i.e., non-agricultural use. Personnel applying herbicides shall have all appropriate state and local herbicide applicator licenses and comply with all state and local regulations regarding herbicide use.<br>b. Herbicides shall be mixed and applied in conformance with the manufacturer's directions.<br>c. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | hazardous materials to be used. To minimize harm to wildlife, vegetation, and water bodies, herbicides shall not be applied directly to wildlife.<br>d. Products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed; and herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water.<br>e. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated.<br>2. The project proponent shall continuously comply with the following:<br>a. The construction contractor or project personnel shall use herbicides that are approved for use in California, and are appropriate for application adjacent to natural vegetation areas (i.e., non-agricultural use. Personnel applying herbicides shall have all appropriate state and local herbicide applicator licenses and comply with all state and local regulations regarding herbicide use.<br>b. Herbicides shall be mixed and applied in conformance with the manufacturer's directions.<br>c. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all hazardous materials to be used. To minimize harm to wildlife, vegetation, and water bodies, herbicides shall not be applied directly to wildlife.<br>d. Products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed; and herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water.<br>e. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated. | |
| **Impact 3.9-2**: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. | Potentially significant | Implement Mitigation Measures MM 3.9-1a through MM 3.9-3a, and:<br>**MM 3.9-4a: Asbestos-containing Material.** The project proponent shall continuously comply with the following:<br>1. In the event that suspect asbestos-containing materials (almost anything other than unpainted metal, glass or wood, to include soil in certain locations/circumstances) are uncovered and/or disturbed during project construction, work at the project site shall immediately halt and an appropriate certified asbestos hazardous materials professional (typically a California Certified Asbestos Consultant) shall be contacted and brought to the project site to make a proper assessment of the suspect materials.<br>2. All potentially friable asbestos-containing materials shall be removed in accordance with Federal, State, and local laws and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines prior to ground disturbance that may disturb such materials. Per the Asbestos NESHAP "…. prior to the commencement of the demolition or renovation, thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable ACM."<br>3. All demolition activities shall be undertaken in accordance with California Occupational Safety and Health Administration standards, as contained in Title 8 of the California Code of Regulations, Section 1529, to protect workers from exposure to asbestos. Materials containing more than 1 percent asbestos shall also be subject to Eastern Kern Air Pollution Control District's regulations. Asbestos in soil is or | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | may be further regulated by California Air Resources Board. Demolition/Renovation shall be performed in conformance with Federal, State, and local laws and regulations, to include the Asbestos NESHAP so that construction workers and/or the public avoid significant exposure to asbestos and asbestos-containing materials. | |
| | | **MM 3.9-5a: Herbicide Application.** The project proponent shall continuously comply with the following:<br>Herbicides shall be applied in accordance with the current Edwards Air Force Base Integrated Pest Management Plan. Physical, mechanical, or other measures must be used to remove or control weeds. Least hazardous, but effective, herbicides shall be used as a last resort. | |
| **Impact 3.9-3**: Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. | Potentially significant | None required | Less than significant |
| **Impact 3.9-4**: Exposes people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. | Less than significant | **MM 3.9-6a: Fire Safety Plan**. Prior to the issuance of grading or building permits, the project proponent shall develop and implement a fire safety plan for use during construction and operation. The project proponent will submit the plan, along with maps of the project site and access roads, to the Kern County Fire Department for review and approval. The fire safety plan will contain notification procedures and emergency fire precautions including, but not limited to the following:<br>1. All internal combustion engines, both stationary and mobile, shall be equipped with spark arresters. Spark arresters will be in good working order.<br>2. Light trucks and cars with factory-installed (type) mufflers will be used only on roads where the roadway is cleared of vegetation. These vehicle types will maintain their factory-installed (type) muffler in good condition.<br>3. Fire rules will be posted on the project bulletin board at the contractor's field office and areas visible to employees.<br>4. Equipment parking areas and small stationary engine sites will be cleared of all extraneous flammable materials.<br>5. Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires to prevent them from growing into more serious threats.<br>6. The project proponent shall make an effort to restrict the use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to periods outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel. | Less than significant |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.9-1a through MM 3.9-6a | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **3.10 Infrastructure** | | | |
| **Impact 3.10-1**: The project would exceed wastewater treatment requirements of the applicable regional water quality control board. | Potentially significant | **MM 3.10-1a: Coordinate with Utility Service Providers.** Prior to construction, the developer shall coordinate with appropriate utility service providers and related agencies to determine the location of utilities and ensure that adequate wastewater treatments exist. The developer will also incorporate into construction specifications the requirement that the contractor develop a plan to reduce service interruptions. The plan shall be approved by the Air Force and submitted to appropriate utility providers. Utilities to be addressed in the plan shall include, but may not be limited to: water, recycled water, sewer, gas, electricity, telephone, cable. | Less than significant |
| **Impact 3.10-2**: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. | Potentially significant | None required | Less than significant |
| **Impact 3.10-3**: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. | Less than significant | Mitigation Measure MM 3.10-1a | Less than significant |
| **Impact 3.10-4**: The project has sufficient water supplies available to serve the project from existing entitlements and resources, and new or expanded entitlement is not needed. | Less than significant | None required | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **Impact 3.10-5**: Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs. | Potentially significant | Implement Mitigation Measure MM 3.11-1a, and:<br>**MM 3.10-2a: Recycling Coordinator.** During construction, operation, and decommissioning, debris and waste generated shall be recycled to the extent feasible.<br>1. An onsite Recycling Coordinator shall be designated by the project proponent to facilitate recycling as part of the Maintenance, Recycling and Trash Abatement and Pest Management Program.<br>2. The Recycling Coordinator shall facilitate recycling of all construction waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes.<br>3. The onsite Recycling Coordinator shall also be responsible for ensuring wastes requiring special disposal are handled according to State and County regulations that are in effect at the time of disposal.<br>4. Contact information of the coordinator shall be provided to Kern County prior to issuance of building permits. | Less than significant |
| **Impact 3.10-6**: Fail to comply with federal, state, and local statutes and regulations related to solid waste. | Less than significant | None required | Less than significant |
| Cumulative | Potentially significant | Mitigation Measures MM 3.10-1a, MM 3.10-2a, MM 3.11-1a, and MM 3.7-2a. | Less than significant |
| **3.11 Land Use** | | | |
| **Impact 3.11-1**: The project would conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the projects (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. | Less than significant | None required | Less than significant |
| **Cumulative** | Potentially significant | **MM 3.11-1a: Decommission Plan.** Except as otherwise agreed to in writing by the Government, Lessee shall, at no cost to the Government:<br>1. Remove all of the Improvements from the Leased Premises. Lessee shall restore the Leased Premises to a condition substantially similar to that which existed on the Effective Date of the Lease, including but not limited to reestablishment (if applicable) vegetation to control erosion in accordance with Government standards.<br>2. No later than 3 years prior to the Restoration Deadline, Lessee shall provide to the Government a report prepared by a construction and demolition expert reasonably acceptable to the Government, which report details and estimates the cost of satisfying the Removal and Restoration Obligation (the "Estimated Restoration Costs"), together with a written plan which sets forth how Lessee proposes to discharge its Removal and Restoration Obligation (an "Improvement Removal Report") and establish an | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | escrow account with a commercial escrow holder reasonably satisfactory to the Government and deposit into it the full amount of the Estimated Restoration Costs ("Demolition Reserve Account").<br>a. The Demolition Reserve Account shall be subject to procedures and controls to be set forth in a written agreement between Lessee, the Government and the escrow holder ("Demolition Reserve Escrow Agreement").<br>b. If Lessee does not satisfy its Removal and Restoration Obligation on or before the Restoration Deadline ("Restoration Default"), the Government shall be entitled, in addition to other available remedies, to (i) take ownership of the Lessee Improvements without compensation therefore, or (ii) cause the Lessee Improvements to be removed or destroyed, and the Leased Premises to be restored at the expense of Lessee. | |
| **3.12 Noise** | | | |
| **Impact 3.12-1**: Expose persons to or generate noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies. | Potentially significant | **MM 3.12-1a: Noise Reduction.** To reduce temporary construction related noise impacts, the following shall be implemented by the project proponent:<br>1. Equipment staging shall be located in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest the project site during construction to the extent practical. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site, where feasible.<br>2. The contractor shall ensure all construction equipment is equipped with manufacturers approved mufflers and baffles, where feasible.<br>3. The construction contractor shall establish a Noise Disturbance coordinator for the project during construction. The Disturbance Coordinator shall be responsible for responding to any complaints about construction noise. The Disturbance Coordinator shall determine the cause of the complaint and shall be required to implement reasonable measures to resolve the complaint. Contact information for the Disturbance Coordinator shall be submitted to the Kern County Planning and Natural Resources Department prior to any ground disturbing activities commence.<br>During all construction or decommissioning phases of the project, the construction contractor shall limit all onsite noise-producing activities to the hours of 6:00 a.m. to 9:00 p.m., Monday through Friday, and to the hours of 8:00 a.m. and 9:00 p.m. on Saturdays and Sunday or as required through the Kern County Noise Ordinance (Municipal Ordinance Code 8.36.020).<br>**MM 3.12-2a: Public Notification**. Prior to commencement of any onsite construction activities (i.e., fence construction, mobilization of construction equipment, initial grading, etc.), the project proponent shall provide written notice to the public through mailing a notice.<br>1. The mailing notice shall be to all residences within 1,000 feet of the project site, 15 days or less prior to construction activities. The notices shall include: The construction schedule, telephone number and email address where complaints and questions can be registered with the noise disturbance coordinator.<br>2. A minimum of one sign, legible at a distance of 50 feet, shall be posted at the construction site or adjacent to the nearest public access to the main construction entrance throughout construction activities that shall provide the construction schedule (updated as needed) and a telephone number where noise complaints can be registered with the noise disturbance coordinator.<br>3. Documentation that the public notice has been sent and the sign has been posted shall be provided to the Air Force and to Kern County. | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **Impact 3.12-2:** Would the project result in the exposure of persons to, or generate, excessive groundborne vibration or groundborne noise levels. | Less than significant | None required | Less than significant |
| **Impact 3.12-3**: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. | Potentially significant | Mitigation Measures MM 3.12-1a and MM 3.12-2a | Less than significant |
| **Impact 3.12-4:** For a project located within the Kern County Airport Land Use Compatibility Plan (ALUCP), would the project expose people residing or working in the project area to excessive noise levels. | Less than significant | Mitigation Measures MM 3.12-1a and MM 3.12-2a | Less than significant |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.12-1a and MM 3.12-2a | Less than significant |
| **3.13 Public Services** | | | |
| **Impact 3.13-1**: The project would result in adverse physical impacts associated with the need for new or physically altered governmental facilities—the construction of which could cause significant environmental impacts—in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services or police protection and law enforcement services. | Less than significant | Implement Mitigation Measure MM 3.9-6a, and:<br>**MM 3.13-1a: Funding for County Fire and Sheriff's Protection.** The project proponent shall implement the following mitigation steps at the project site:<br>1. For facility operation, the project proponent shall pay for impacts on countywide public protection, sheriff's patrol and investigative services, and fire services at a rate of $28.84 per 1,000 square feet of panel-covered ground for the facility operation and related onsite structures for the entire covered area of the project. The total amount shall be divided by the number of years of operation and paid on a yearly basis. If completed in phases, the annual amount shall be based on the square footage of ground covered by April 30 of each year. The amount shall be paid to the Kern County Auditor/Controller by April 30 of each calendar year for each and every year of operation. Copies of payments made shall be submitted to the Kern County Planning and Natural Resources Department.<br>2. Written verification of ownership of the project shall be submitted to the Kern County Planning and Natural Resources Department by April 15 of each calendar year. If the project is sold to a city, county, or utility company with assessed taxes that total less than $1,000 per megawatt per year, then they will pay those taxes plus the amount necessary to equal the equivalent of $1,000 per megawatt. The amount shall be paid for all years of operation. The fee shall be paid to the Kern County Auditor/Controller by April 30 of each calendar year.<br>3. The project proponent shall work with the County to determine how the use of sales and use taxes from construction of the project can be maximized. This process shall include, but is not necessarily limited to, the project proponent obtaining a street address within the unincorporated portion of Kern County for acquisition, purchasing and billing purposes, and registering this address with the State Board of | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | Equalization. The project proponent shall allow the County to use this sales tax information publicly for reporting purposes.<br>4. Prior to the issuance of any building permits on the property, the project proponent shall submit a letter detailing the hiring efforts prior to commencement of construction; which encourages all contractors of the project site to hire at least 50 percent of their workers from the local Kern County communities. The project proponent shall provide the contractors a list of training programs that provide skilled workers and shall require the contractor to advertise locally for available jobs, notifying the training programs of job availability, all in conjunction with normal hiring practices of the contractor. | |
| **Cumulative** | Less than significant | Mitigation Measures MM 3.13-1a and MM 3.9-6a | Less than significant |
| **3.14 Socioeconomics and Environmental Justice** | | | |
| **Cumulative** | Less than significant | No mitigation measures are recommended to address socioeconomic impacts related to Alternative A, Alternative B, or Alternative C. | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **3.15 Transportation** | | | |
| **Impact 3.15-1**: The project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. | Less than significant | **MM 3.15-1a: Traffic Control Plan.** Prior to the issuance of construction or building permits, the project proponent shall:<br>1. Prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department-Development Review and the California Department of Transportation offices for District 9, as appropriate, for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and must include, but not be limited to, the following issues:<br>a. Timing of deliveries of heavy equipment and building materials.<br>b. Directing construction traffic with a flag person.<br>c. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic.<br>d. Ensuring access for emergency vehicles to the project sites.<br>e. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections.<br>f. Maintaining access to adjacent property.<br>g. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project sites, and avoiding residential neighborhoods to the maximum extent feasible.<br>2. Obtain all necessary encroachment permits for the work within the road right-of-way or use of oversized/overweight vehicles that will utilize county maintained roads, which may require California Highway Patrol or a pilot car escort. Copies of the approved traffic plan and issued permits shall be submitted to the Kern County Planning and Natural Resources Department and the Kern County Public Works Department-Development Review.<br>3. Prior to construction, the project proponent shall submit engineering drawings of proposed access road design for the review and approval of the Kern County Public Works Department.<br>4. Enter into a secured agreement with Kern County to ensure that any County roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the state and/or Kern County.<br>5. Submit documentation that identifies the roads to be used during construction. The project proponent shall be responsible for repairing any damage to non-county maintained roads that may result from construction activities. The project proponent shall submit a preconstruction video log and inspection report regarding roadway conditions for roads used during construction to the Kern County Public Work Department-Development Review and the Kern County Planning and Natural Resources Department.<br>6. Within 30 days of completion of construction, the project proponent shall submit a post-construction video log and inspection report to the County. This information shall be submitted in DVD format. The County, in consultation with the project proponent's engineer, shall determine the extent of remediation required, if any. | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **Impact 3.15-2**: The project would conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards developed by the County congestion management agency for designated roads or highways. | Less than significant | Implement Mitigation Measure MM 3.15-1a | Less than significant |
| **Impact 3.15-3**: The project would substantially increase hazards due to a design feature (such as sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). | Potentially significant | Implement Mitigation Measure MM 3.15-1a | Less than significant |
| **Impact 3.15-4**: The project would result in inadequate emergency access. | Less than significant | Implement Mitigation Measure MM 3.15-1a | Less than significant |
| **Cumulative** | Potentially significant | Implement Mitigation Measure MM 3.15-1a | Less than significant |
| **3.16 Water Resources** | | | |
| **Impact 3.16-1**: The project could violate water quality standards or waste discharge requirements. | Potentially significant | Implement Mitigation Measure MM 3.9-1a, and:<br>**MM 3.16-1a: Stormwater Pollution Prevention Plan**. Prior to issuance of a grading permit for construction or decommissioning, the developer shall submit a Stormwater Pollution Prevention Plan to the Kern County Engineering, Surveying, and Permit Services Department that specifies best management practices to prevent all construction pollutants from contacting stormwater, with the intent of keeping sediment and other pollutants from moving offsite and into receiving waters. The requirements of the Stormwater Pollution Prevention Plan shall be incorporated into design specifications and construction contracts. Best management practices categories employed onsite would include erosion control, sediment control, good housekeeping, and post-construction. Best management practices for the construction phase shall include, but not be limited to, those listed below.<br>1. Erosion Control<br>a. Use of existing roadways to the maximum extent possible<br>b. Limiting grading to the minimum area necessary for construction, operation and decommissioning of the project<br>c. Encourage maintenance of existing topography and limit vegetation disturbance/removal such as through mowing to the maximum extent possible<br>2. Sediment Control<br>a. Implementing fiber rolls and sand bags around drainage areas and the site perimeter | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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b. Stockpiling and disposing of demolition debris, concrete, and soil properly
c. Installation of a stabilized construction entrance/exit and stabilization of disturbed areas

3. Good Housekeeping
   a. Implement proper protections for fueling and maintenance of equipment and vehicles
   b. Manage waste and aggressively control litter
4. Post Construction
   a. Stabilize soil in disturbed areas either by revegetation or chemical stabilizer
   b. Implement any necessary drainage mitigation
   c. Revegetate any disturbed areas.

**MM 3.16-2a: Federal Emergency Management Agency Flood Zone Mapping and Strategic Construction Siting and Facility Placement.** Prior to the preparation of Final Flood Hazard Assessment (Mitigation Measure MM 3.16-3a) and Grading Plan (Mitigation Measure 3.16-4a), the developer will consult with the Federal Emergency Management Agency for flood zone mapping services of the estimated area of impact on Edwards Air Force Base that is currently unmapped. Once flood risks are determined by the Federal Emergency Management Agency, these official flood zone boundaries will be incorporated into the final version of all technical hydrology and flood-related documents prepared for the project so that appropriate design recommendations for the projects can be made. Based on specific flood zone information, construction staging areas and final project structures would be sited to avoid existing hydrologic features (including flood zones and drainages) to the maximum extent possible.

**MM 3.16-3a: Final Flood Hazard Assessment.** Prior to construction, a Final Flood Hazard Assessment shall be prepared for the project. The Final Flood Hazard Assessment shall describe the existing flood risks onsite and how the project structures would be designed to incorporate the requirements of the Kern County Floodplain Management Ordinance. The existing flood risks on the Edwards Air Force Base portion of the site shall be determined through developer coordination with the Federal Emergency Management Agency (see Mitigation Measure MM 3.16-2a). For any solar arrays installed within flood zones, final design of the solar arrays shall include 1 foot of freeboard clearance above the calculated maximum flood depths for the solar arrays or the finished floor of any permanent structures. Solar panel sites shall be graded to direct potential flood waters into channels adjacent to the existing and proposed right of ways without increasing the water surface elevations more than 1 foot or as otherwise required by Kern County's Floodplain Management Ordinance. The Final Flood Hazard Assessment shall be approved by the Floodplain Management Section of the Kern County Public Works Department prior to the issuance of a grading permit for the project.

**MM 3.16-4a: Grading Plan.** Prior to commencement of construction or decommissioning activities, the developer shall prepare a Grading Plan per the Kern County Grading Code and Kern County Grading Guidelines. The Grading Plan shall include the location of all existing drainages onsite, project grading details and the drainage devices and erosion control features that would be installed onsite to minimize excess site runoff, erosion and sedimentation. Examples of features installed onsite that would minimize runoff, erosion and sedimentation include energy dissipaters, and water quality inlets. The plan shall also disclose flood protection measures implemented for structures onsite as identified in the Flood Hazard Assessment (see Mitigation Measure MM 3.16-3a). Flood zone information used in the preparation of the Grading Plan will be based on flood zone maps obtained from developer consultation with FEMA (see Mitigation Measure MM

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 3.7-2a). The Grading Plan shall be approved by Kern County Public Works – Engineering prior to issuance of a grading permit. | |
| **Impact 3.16-2**: The project could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. | Potentially significant | None required | Less than significant |
| **Impact 3.16-3**: The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation and/or flooding onsite or off site. | Potentially significant | Mitigation Measures MM 3.16-1a through MM 3.16-4a | Less than significant |
| **Impact 3.16-4**: The project could create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. | Potentially significant | Mitigation Measures MM 3.16-1a, MM 3.16-4a, and:<br>**MM 3.16-5a: Hydrologic Analysis and Drainage Plan.** Prior to the issuance of a grading permit, the project proponent shall complete a hydrologic study and drainage plan designed to evaluate and minimize potential increases in runoff from the project site. The study shall include, but is not limited to the following:<br>1. Numerical stormwater model for the project site, and would evaluate existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event.<br>2. The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation.<br>3. The drainage plan would include engineering recommendations to be incorporated into the project and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or onsite.<br>4. The final design of the solar arrays shall include 1 foot of freeboard clearance above the calculated maximum flood depths for the solar arrays or the finished floor of any permanent structures. Solar panel sites located within a 100-year floodplain shall be graded to direct potential flood waters without increasing the water surface elevations more than 1 foot or as required by Kern County's Floodplain Ordinance.<br>5. The hydrologic study and drainage plan shall be prepared in accordance with the Kern County Grading Code and Kern County Development Standards, and approved by the Kern County Public Works Department prior to the issuance of grading permits. | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **Impact 3.16-5**: The project could otherwise substantially degrade water quality. | Potentially significant | Mitigation Measures MM 3.16-1a through MM 3.16-4a, and MM 3.7-2a | Less than significant |
| **Impact 3.16-6**: The project could place within a 100-year flood hazard area structures that would impede or redirect flood flows. | Potentially significant | Mitigation Measures MM 3.16-2a through MM 3.16-4a | Less than significant |
| **Cumulative** | Potentially significant | Implement Mitigation Measures MM 3.9-1a, MM 3.16-1a through MM 3.16-5a, and MM 3.7-2a | Less than significant |
| **5 Consequences of Project Implementation** | | | |
| **Impact 5-1:** The project could result in an inefficient, wasteful, and/or unnecessary use of energy for transportation of materials and worker commutes. | Potentially Significant | **MM 5-1a: Transportation Energy Management Plan.** The developer shall develop and implement a construction- and decommissioning-phase Transportation Energy Management Plan in consultation with Kern County and Edwards AFB to reduce construction- and decommissioning-related transportation energy consumption. The plan shall include but not be limited to the following measures:<br>1. Require that onsite equipment and vehicle operators minimize equipment and vehicle idling time either by shutting equipment off when not in use or by limiting idling time to a maximum of 5 minutes.<br>2. Designate a Transportation Energy Manager (TEM) to coordinate ridesharing by construction and decommissioning employees. The TEM shall encourage carpooling by posting commuter ride sign-up sheets, maintaining and posting an employee home zip code map.<br>3. Provide priority parking onsite for vehicles with two or more passengers.<br>4. When feasible, arrange for a single construction vendor who makes deliveries for several items.<br>5. Plan construction delivery and waste hauling routes to eliminate unnecessary trips.<br>6. The plan shall be submitted to Kern County and to Edwards AFB for review and approval prior to the start of construction. | Less than significant |

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**TABLE ES-6**
**SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROPOSED ACTION GENERATION TIE LINES (KERN COUNTY MITIGATION AUTHORITY)**

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| **3.1 Aesthetics** | | | |
| **Impact 3.1-1:** Substantially degrade the existing visual character or quality of the site and its surroundings. | Potentially significant | **MM 3.1-1b: Landscape Revegetation and Restoration Plan.** The following shall be implemented by the project proponent:<br>1. Prior to final onsite inspections, groupings of drought-tolerant plants (including relocation of Joshua trees as described in Mitigation Measures MM 3.5-14b), shall be planted along the generation tie line routes where transmission pole structures are constructed and where adjoining property is zoned for residential use. (E [Estate Residential], R-1 [Low-Density Residential], R-2 [Medium-Density Residential], R-3 [High-Density Residential], or PL (Platted Lands) zoning). Drought tolerant species shall consist of locally endemic plants that currently exist on the generation tie-line sites as described in the Biological Resources Technical Report for the Gen-Tie Routes for Edwards Air Force Base Solar EUL Project (Dudek, 2018) and shall extend approximately 25 feet on either side of the transmission pole structures. This requirement may be requested to be waived should the adjacent property be owned by the project proponent (to be verified by the Kern County Planning and Natural Resources Department) or a public or private agency submit correspondence to the Kern County Planning and Natural Resources Department requesting this requirement be waived.<br>2. Should the project proponent or agency sell the adjacent property prior to a final site inspection, drought-tolerant plants shall be planted prior to the sale. If such landscaping is required, it must be continuously maintained on the tie-line sites by the project proponent, in accordance with Section 19.86 (Landscaping Standards) of the Kern County Zoning Ordinance.<br>3. Prior to the commencement of operations, the project proponent must submit a Landscape Revegetation and Restoration Plan for the generation tie-line routes to the Kern County Planning and Natural Resources Department for approval. The plan shall include, but not limited to the following:<br>a. Where feasible, root balls shall be maintained during vegetation clearing to maintain soil stability and ultimately vegetation regrowth following construction.<br>b. Ground cover shall include native seed mix and shall be spread where earthmoving activities have taken place, as needed to establish revegetation.<br>c. In areas temporarily disturbed during generation tie-line installation (including grading or removal of root balls resulting in loose soil), the ground surface shall be revegetated with native seed mix or native plants and/or allowed to revegetate with existing native seed bank in the top soil where possible to establish revegetation. Areas that contain permanent features such as perimeter roads, and maintenance roads do not require revegetation.<br>d. The seed mix or native plants shall be determined through consultation with professionals such as landscape architect(s), horticulturist(s), botanist(s), etc. with local knowledge as shown on submitted resume and shall be approved by the Kern County Planning and Natural Resources Department prior to planting. Seed mix shall be hydro-seeded with pure live seed of habitat-appropriate, fast-germinating, weed-free native seed varieties, and shall be approved by the Kern County Planning and Natural Resources Department prior to planting. An appropriate hydraulic mulch and tackifier shall be used to protect and encapsulate the seed mixture to promote successful germination. Additional mulch or fertilizer shall not be applied.<br>e. All disturbed soil areas should be hydro-seeded per the determination of the SWPPP recommendations. Imprinting is recommended during hydro-seeding. | Significant and unavoidable |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| | | f. Phased seeding may be used if a phased construction approach is used (i.e., the entire site need not be seeded all at the same time).<br>g. The plan must include the approved native seed mix, a relative timeline for seeding the routes and a percentage of the routes to be covered, detail the consultation efforts completed and the methods that comply with wildlife agency regulations and prohibition of the use of toxic rodenticides.<br>h. The revegetation and restoration of the generation tie-line sites, shall be monitored annually for a 3-year period, and an annual evaluation report shall be submitted to the Kern County Planning and Natural Resources Department during the 3-year period. Ground cover shall be continuously maintained on the site by the project proponent. The 3-year monitoring program is intended to ensure the site naturally achieve native plant diversity, establishes perennials, and is consistent with ground cover conditions prior to implementation of the project, where feasible.<br>**MM 3.1-2b: Recycling and Trash Abatement.** Prior to issuance of a grading or building permit, a Maintenance, Trash Abatement, and Pest Management Program for the gen-tie construction and decommissioning activities shall be submitted to the Kern County Planning and Natural Resources Department. The program shall include, but not be limited to the following:<br>1. The project proponent shall clear debris from the generation tie line area daily during the construction and decommissioning activities.<br>2. Signs shall be clearly established with contact information for the project proponent's maintenance staff. Maintenance staff shall respond within 2 days to requests for additional cleanup of debris at gen-tie installation sites. Correspondence with such requests and responses shall be submitted to the Kern County Planning and Natural Resources Department.<br>3. Daily construction trash removal with recycling program during generation tie line installation. Pest/rodent barriers for all receptacles shall be detailed.<br>**MM 3.1-3b: Generation-tie Line Lighting Standards.** The project shall continuously comply with the following:<br>Generation tie line project lighting shall comply with the applicable provisions of the Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance), and shall be designed to provide the minimum illumination needed to achieve safety and security objectives. All lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Lenses and bulbs shall not extend below the shields. A lighting plan shall be submitted and approved. | |
| **Impact 3.1-2:** Create a new source of substantial light or glare that would adversely affect day or nighttime views in this area. | Potentially significant | Implement Mitigation Measures MM 3.1-1b | Less than significant |
| **Cumulative** | Potentially significant | Implement Mitigation Measures MM 3.1-1b through MM 3.1-3b, | Significant and unavoidable |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **3.2 Agricultural Resources** | | | |
| **Impact 3.2-1:** The project would conflict with existing zoning for agricultural use or a Williamson Act Contract. | Less than significant | None required | Less than significant |
| **Impact 3.2-2:** Involves other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use. | Less than significant | None required | Less than significant |
| **Cumulative** | Less than significant | None required | Less than significant |
| **3.3 Air Quality** | | | |
| **Impact 3.3-1**: The project would conflict with or obstruct implementation of the applicable air quality plan. | Significant and unavoidable | **MM 3.3-1b: Fugitive Dust Control Measures.** The project proponent shall ensure construction of the generation tie-lines shall be conducted in compliance with applicable rules and regulations set forth by the Eastern Kern Air Pollution Control District. Dust control measures outlined below shall be implemented where they are applicable and feasible. The list shall not be considered all-inclusive and any other measures to reduce fugitive dust emissions may be required by appropriate agencies to respond to urgent issues on site:<br>1. Land Preparation, Excavation and/or Demolition. The following dust control measures shall be implemented:<br>a. All soil being actively excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed soil areas. Watering shall take place a minimum of three times daily on disturbed soil areas with active operations, unless dust is otherwise controlled by rainfall or use of a dust suppressant.<br>b. After active gen-tie construction activities, soil shall be stabilized with a non-toxic soil stabilizer or soil weighting agent, or alternative approved soil stabilizing methods.<br>c. All unpaved construction and site roads, as they are being constructed, shall be stabilized with a non-toxic soil stabilizer or soil weighting agent.<br>d. Clearing, grading, earth moving, and excavation activities shall cease during periods of winds greater than 20 miles per hour (averaged over 1 hour), or when dust plumes of 20% or greater opacity impact public roads, occupied structures, or neighboring property or as identified in a plan approved by the Eastern Kern Air Pollution Control District.<br>e. All trucks entering or leaving the site will cover all loads of soils, sands, and other loose materials, or be thoroughly wetted with a minimum freeboard height of one foot.<br>f. Areas disturbed by clearing, earth moving, or excavation activities shall be minimized at all times.<br>g. Stockpiles of soil or other fine loose material shall be stabilized by tarp covering, watering or other appropriate method to prevent wind-blown fugitive dust. | Significant and unavoidable |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| | | h. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or shall be treated with appropriate dust suppressant compounds or covered with tarps.<br>i. Prior to gen-tie construction, wind breaks (such as chain-link fencing including a wind barrier) shall be installed in areas where appropriate.<br>j. Where acceptable to the Kern County Fire Department, weed control shall be accomplished by mowing instead of disking, thereby, leaving the ground undisturbed and with a mulch covering.<br>k. When grading is unavoidable, it is to be phased and done with the application of a non-toxic soil stabilizer or soil weighting agent, or alternative soil stabilizing methods.<br>l. Where feasible, plant roots shall be left in place to stabilize the soil.<br>m. Reduce and/or phase the amount of the disturbed area (e.g., grading, excavation) where possible.<br>2. Generation tie-line construction. After active clearing, grading, and earth moving is completed within any portion of the tie-line routes, the following dust control practices shall be implemented:<br>a. Dust suppressant shall be used on the same day or day immediately following the cessation of activity for a particular area where further activity is not planned.<br>b. Dependent on specific site conditions (season and wind conditions), revegetation shall occur in those areas where planned after installation of the generation tie-lines.<br>c. All unpaved road areas used for gen-tie construction or decommissioning shall be treated with a dust suppressant or graveled to prevent excessive dust.<br>d. The project proponent shall use dust suppression measures during road surface preparation activities, including grading and compaction.<br>e. Final road surfaces must be stabilized to achieve a measurable threshold friction velocity (TFV) equal to or greater than 100 centimeters per second (cm/S).<br>f. Wind barrier fencing or screening shall be installed, when appropriate.<br>3. Vehicular Activities. During all phases of generation tie-line construction, the following vehicular control measures shall be implemented:<br>a. On-site vehicle speed shall be limited to 10 miles per hour on unpaved areas within the generation tie-line areas. Vehicles may travel up to 25 miles per hour on stabilized unpaved roads (application of palliatives, gravel, etc. that reduces the erosion potential of the soil) as long as such speeds do not create visible dust emissions.<br>b. Visible speed limit signs shall be posted at main ingress point(s) on generation tie-line sites.<br>c. All areas with vehicle traffic such as the main entrance roadway to the generation tie-line installation sites shall be graveled or treated with dust palliatives so as to prevent track-out onto public roadways.<br>d. All vehicles that are used to transport solid bulk material on public roadways and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least 1 foot of freeboard.<br>e. Streets used by the project during generation tie-line installation shall be kept clean, and project-related accumulated silt shall be removed on at a minimum of once daily, or as necessary to prevent substantial offsite fugitive dust releases. The use of either dry rotary brushes (unless prior wetting) or blower devices is prohibited. | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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f. Access to the generation tie-line installation sites shall be by means of an apron into the tie-line sites from adjoining surfaced roadways. The apron shall be surfaced or treated with dust suppressants. If site soils cling to the wheels of the vehicles, then a grizzly, wheel-washer, or other such device shall be used on the road exiting the tie-line sites, immediately prior to the pavement, to remove most of the soil material from vehicle tires.

g. If site soils cling to the wheels of the vehicles, then a track out control device or other such device shall be used on the road exiting the generation tie line site, immediately prior to the pavement, to remove most of the soil material from vehicle tires.

**MM 3.3-2b: Grading Plan.** Prior to the issuance of grading or building permits, the project proponent shall provide a comprehensive generation tie-line Phased Grading Plan for review by the Kern County Planning and Natural Resources Department to reduce fugitive dust emissions resulting from wind erosion at the site. The Phased Grading Plan shall:

1. Identify a comprehensive grading schedule for the entire generation tie-line routes which demonstrates the following:
   a. **Minimal Grading**. Grading shall be minimized to limit the removal of topsoil and creation of loose soils. Only in areas where drainage improvements, structural foundations, service roads, and leveling of severe grades need to occur will grading that removes and recompacts the soil surface occur. Water and/or dust palliatives shall be immediately applied following any grading. Construction (installation of posts, roads, etc.) shall commence on areas that have undergone initial ground disturbance or grading within 20 calendar days.
   b. **Dust Suppression:** Application of water and/or dust palliatives shall be applied on an as-needed basis throughout generation tie-line construction to help reduce dust, especially during periods of high winds, and shall include use of (1) an eco-safe, biodegradable, liquid copolymer shall be used to stabilize and solidify any soil; and (2) A hydro mulch mixture composed of wood fiber mulch and an Environ-Mend binder may also be applied, where real-time weather conditions dictate that additional measures are necessary.
   c. **Water Suppression**. Water trucks shall transit across the generation tie line routes and construction access roads to suppress the fugitive dust from disturbed soils on roads and active working areas on a regular and as needed basis.
2. Minimize all grading activities to those areas necessary for project access and installation of generation tie lines. Construction shall commence on areas that have undergone initial grading within 20 calendar days.
3. Identify, in addition to those measures required by the Eastern Kern Air Pollution Control District, all measures being undertaken during generation tie-line construction activities to ensure dust being blown off site is minimized. Measure may include, but are not limited to:
   a. Increased use of water and or use of dust suppressant.
   b. Pre-seeding and/or use of wood chips as permitted by the EKAPCD
   c. Construction of dust screening around the generation tie-line site.
4. **Revegetation Plan.** A Revegetation Plan shall be submitted for approval to the Kern County Planning and Natural Resources Department (per MM 3.1-1b). To minimize long term dust issues from the project, the generation tie-line routes shall be revegetated (consistent with existing site conditions). Root balls shall be maintained during vegetation clearing to maintain soil stability and ultimately vegetation regrowth following

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | construction of routes. Following construction completion of generation tie-line routes, the gen-tie areas shall be reseeded with native vegetation.<br><br>**MM 3.3-3b: Construction Equipment Standards.** The project proponent and/or its contractors shall implement the following measures during construction of the project:<br>1. All equipment shall be maintained in accordance with the manufacturer's specifications.<br>2. Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.<br>3. No individual piece of construction equipment shall operate longer than 8 consecutive hours per day.<br>4. Electric equipment shall be used whenever possible in lieu of diesel or gasoline-powered equipment.<br>5. All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions.<br>6. On-road and off-road diesel equipment shall use diesel particulate filters (or the equivalent) if permitted under manufacturer's guidelines.<br>7. Prohibit the use of heavy-equipment during first- or second-stage smog alerts and suspend all construction activities during second-stage smog alerts.<br>8. Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use to the extent feasible.<br>9. Require that trucks and vehicles in loading or unloading queues have their engines turned-off when not in use.<br>10. Off-road equipment engines over 50 horsepower shall be Tier 2 certified or higher (unless Tier 2 equipment has been determined to not be available).<br>11. Provide notification to trucks and vehicles in loading or unloading queues that their engines shall be turned-off when not in use for more than 10 minutes.<br><br>**MM 3.3-4b: Onsite Idling Standards.** During generation tie-line installation these measures should be required to ensure the reduction of public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles:<br>1. The driver shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location.<br>2. The driver shall not operate a diesel-fueled auxiliary power system to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of a restricted area.<br><br>**MM 3.3-5b: Dust Control.** The project proponent shall continuously comply with the following measures to control fugitive dust emissions during generation tie-line installation activities:<br>1. Increase handling moisture content of graded soils from the typical of 15 percent to 20 percent during construction activities.<br>2. Reduce speed of road grading by motor graders and rollers from typical 7.1 miles per hour (mph) to 5 mph.<br>3. Prior to construction, onsite roads that will have the greatest extent of onsite travel shall be graveled.<br>4. Use a dust suppressant such as magnesium chloride, polymer, or similar, to the extent feasible, including on gravel roads. | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| | | **MM 3.3-6b: Onsite Emissions Control.** The project proponent shall continuously comply with the following measures during construction of generation tie-lines to control emissions from onsite dedicated equipment (equipment that would remain onsite each day):<br>1. All onsite off-road equipment and on-road vehicles for maintenance shall meet the recent CARB engine emission standards or alternatively fueled construction equipment, such as compressed natural gas, liquefied gas, or electric, as appropriate.<br>2. All equipment shall be turned off when not in use, where feasible. Engine idling of all equipment shall be minimized.<br>3. All equipment engines shall be maintained in good operating condition and in tune per manufacturer's specification. | |
| **Impact 3.3-2**: The proposed projects could violate an applicable air quality standard or contribute substantially to an existing or projected air quality violation. | Significant and unavoidable | Mitigation Measures MM 3.3-1b through MM 3.3-6b | Significant and unavoidable |
| **Impact 3.3-3:** Construction and operation of the proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under applicable federal or state ambient air quality standards (including releasing emissions that exceed quantitative thresholds for ozone precursors). | Significant and unavoidable | Mitigation Measures MM 3.3-1b through MM 3.3-6b | Significant and unavoidable |
| **Impact 3.3-4**: Construction and operation of the proposed project could expose sensitive receptors to substantial pollutant concentrations. | Potentially significant | **MM 3.3-7b: Valley Fever.** Prior to ground disturbance activities, the project proponent shall provide a "Valley Fever Training Information Packet" and conduct training sessions for all construction personnel. A copy of the handout and a schedule of education sessions shall be provided to the Kern County Planning and Natural Resources Department. All evidence of the training session(s) and handout(s) shall be submitted to the Kern County Planning and Natural Resources Department on a monthly basis. Multiple training sessions may be conducted if different work crews come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the Kern County Planning and Natural Resources Department regarding the "Valley Fever Training Handout" and Session(s) shall include the following:<br>1. A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session.<br>2. Distribution of an information packet that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever; symptoms of exposure; and instruction for | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | reporting cases of flu-like or respiratory illness symptoms to the Site Safety Officer. Those with persistent systems lasting more than 3 days shall be recommended to seek immediate medical advice.<br>3. Training on methods that may help prevent Valley Fever infection.<br>4. A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Though use of the equipment is not mandatory during work, the equipment shall be readily available and shall be provided to employees for use during work, if requested by an employee. Proof that the demonstration is included in the training shall be submitted to the Kern County Planning and Natural Resources Department. This proof can be via printed training materials/agenda, DVD, digital media files, or photographs.<br>**MM 3.3-8b: Valley Fever Public Awareness Program.** Prior to the issuance of grading permits, a one-time fee shall be paid to the Kern County Public Health Services Department, in the amount of $3,200, for Valley Fever public awareness programs. | |
| **Cumulative** | Significant and unavoidable | Mitigation Measures MM 3.3-1b through MM 3.3-6b | Significant and unavoidable |
| **3.4 Air Space Management and Use** | | | |
| **Impact 3.4-1:** The project is located within the adopted Kern County Airport Land Use Compatibility Plan and could result in a safety hazard for people residing or working in the project area. | Less than significant | **MM 3.4-1b: Federal Aviation Administration Notification.** Prior to issuance of grading or building permits for generation tie-line installation:<br>1. The developer shall submit Form 7460-1 (Notification of Proposed Construction or Alteration) to the Federal Aviation Administration, in the form and manner prescribed in Code of Federal Regulation 77.17 for the gen-tie towers;<br>2. The developer shall also provide documentation to the Kern County Planning and Natural Resources Department demonstrating that the Federal Aviation Administration has issued a "Determination of No Hazard to Air Navigation" For the gen-tie towers. This documentation shall include written concurrence from the military authority responsible for operations in the flight area depicted in the Kern County Zoning Ordinance Figure 19.08.160 that all project components in the flight area would create no significant military mission impacts.<br>3. The developer shall also provide documentation to the Kern County Planning and Natural Resources Department demonstrating that a copy of the approved form(s) has been provided to the operators of Mojave Air Space and Port. | Less than significant |
| **Impact 3.4-2:** The project is located within the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area. | Less than significant | No mitigation measures are required. | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| **Impact 3.4-3:** The project could result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. | Less than significant | No mitigation measures are required. | Less than significant |
| **Cumulative** | Less than significant | Mitigation Measure MM 3.4-1b. | Less than significant |
| **3.5 Biological Resources** | | | |
| **Impact 3.5-1**: The project would have a substantial adverse impact, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. | Potentially significant | **MM 3.5-1b: Biological Monitoring.** Prior to the issuance of grading or building permits for generation tie-line construction, the project proponent shall retain a qualified biologist(s) who meets the qualifications of an authorized biologist as defined by U.S. Fish and Wildlife Service to oversee compliance with protection measures for all listed and other special-status species.<br>1. The project qualified biologist(s) shall be onsite during ground disturbing activities throughout the generation tie-line construction phase. Ground disturbing activities include, but are not limited to: mowing, brush clearance, grubbing, excavation, trenching, grading, cut and roll vegetation clearing, drilling, equipment laydown or parking.<br>2. The project qualified biologist(s) shall have the right to halt all activities that are in violation of the special-status species protection measures. Work shall proceed only after hazards to special-status species are removed and the species is no longer at risk.<br>3. The project qualified biologist(s) shall have in her/his possession a copy of all the biological compliance measures while work is being conducted onsite.<br>4. Prior to issuance of grading or building permits for the generation tie-line construction, contact information for the qualified biologist(s) shall be submitted to the appropriate Kern County Planning and Natural Resources Department.<br>Any individuals who undertake biological monitoring and mitigation tasks shall be supervised by the qualified biologist(s) and shall have the appropriate education and experience to accomplish biological monitoring and mitigation tasks. Biological monitors shall comply with the above measures.<br>**MM 3.5-2b: Worker Environmental Awareness Training and Education Program.** Prior to the issuance of grading or building permits and for the duration of generation tie-line construction activities, within 1 week of employment all new construction workers at laydown area and/or generation tie-line transmission routes shall attend a Worker Environmental Awareness Training and Education Program (WEATEP), developed and presented by the Lead Biologist. The Training and Education shall include:<br>1. Any employee responsible for the operations and maintenance or decommissioning of the project generation tie-line facilities shall also attend the Worker Environmental Awareness Training and Education Program.<br>2. The program shall include information on the life history of the desert tortoise; burrowing owl; golden eagle, Swainson's hawk, and other raptors; nesting birds; American badger; desert kit fox; as well as other wildlife and plant species that may be encountered during generation tie line installation activities. The program shall also discuss the legal protection status of each species, the definition of "take" under the Federal Endangered Species Act and California Endangered Species Act, measures the project proponent is implementing to protect the species, reporting requirements, specific measures that each worker shall | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | employ to avoid take of wildlife species, and penalties for violation of the Federal Endangered Species Act or California Endangered Species Act.<br>3. An acknowledgement form signed by each worker indicating that Worker Environmental Awareness Training and Education Program has been completed would be kept on record.<br>4. A sticker shall be placed on hard hats indicating that the worker has completed the Worker Environmental Awareness Training and Education Program. Construction workers shall not be permitted to operate equipment within the generation tie-line construction areas unless they have attended the Worker Environmental Awareness Training and Education Program and are wearing hard hats with the required sticker.<br>5. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the Worker Environmental Awareness Training and Education Program and copies of the signed acknowledgement forms shall be submitted to the Kern County Planning and Natural Resources Department.<br>6. A copy of the training transcript, training video or informational binder (including such information as trenching protection for kit fox requirements) for specific procedures shall be kept available for all personnel to review and be familiar with as necessary.<br>7. The generation tie-line construction crews and contractor(s) shall be responsible for unauthorized impacts from generation tie-line construction activities to sensitive biological resources that are outside the areas defined as subject to impacts by project permits. (See MM 3.5-4 (2))<br><br>**MM 3.5-3b: Noise, Dust and Lighting Mitigation.** The following measure will be implemented to avoid, minimize and mitigate potential impacts to special-status wildlife from noise:<br>1. Construction equipment will be restricted from use in areas where biological buffers have been established to protect nests or other potentially noise sensitive resources. Buffers will be removed when nests have fledged or failed, or resource concerns no longer exist.<br>2. Implement dust mitigation per Mitigation Measures MM 3.3-1 through MM 3.3-8 above.<br>3. Night lighting will be kept to the minimum required to conduct project activities and ensure human safety and site security.<br><br>**MM 3.5-4b: General Avoidance.** During construction and decommissioning of generation tie-lines, the project proponent or contractor shall implement the following general avoidance and protective measures:<br>1. Prior to conducting vegetation clearing or grading activities associated with construction or decommissioning of generation tie-lines, a qualified biologist or biological monitor that has been approved by the qualified biologist shall survey the area immediately prior to conducting these activities to ensure that no special-status animals are present. A qualified biologist or biological monitor shall monitor all initial generation tie-line installations and decommissioning ground-disturbance activities. A report of those activities shall be submitted to the Kern County Planning and Natural Resources Department.<br>2. Based on the results of generation tie-line pre-construction surveys, if any evidence of occupation of the site by listed or other special-status species is observed, a no- disturbance buffer shall be established by a qualified biologist that results in sufficient avoidance, as described below. If sufficient avoidance cannot be established, construction shall cease in the vicinity of the Animal. For state and/or federally listed species, the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife, as appropriate depending on the species, shall be contacted for further guidance and consultation on additional measures required. | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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a. All proposed impact areas, including generation-tie line, staging areas, access routes, and disposal or temporary placement of spoils, shall be delineated with stakes and/or flagging prior to construction to avoid natural resources where possible. Generation tie-line construction-related activities outside of the impact zone shall be avoided.

b. Access roads that are planned for use during generation tie-line installation shall not extend beyond the planned impact area. All vehicle traffic shall be contained within the planned impact area or in previously disturbed areas. Where new access routes are required, the route will be clearly marked (i.e., flagged and/or staked) prior to generation tie-line construction.

c. If exclusion fencing is required by any consulting Resource Agency (i.e., California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service), the site shall be fenced with a temporary exclusion fence to keep special-status terrestrial wildlife species, including desert tortoise, from entering during construction. This exclusion fencing shall be constructed of silt fence material, metal flashing, plastic sheeting, or other materials that will prohibit wildlife from climbing the fence or burrowing below the fence. The fencing shall be buried approximately 12 inches below the surface and extend a minimum of 18 inches above grade. Fencing shall be installed prior to issuance of grading or building permits and shall be maintained during all phases of generation tie-line installation and decommissioning. The fencing shall be inspected by an authorized biologist approved by the Resource Agencies weekly and immediately after all major rainfall events through the duration of construction and decommissioning activities. Any needed repairs to the fence shall be performed on the day of their discovery. Exclusion fencing shall be removed once generation tie-line construction or decommissioning activities are complete. Outside temporarily fenced exclusion areas, the project proponent/operator shall limit the areas of disturbance. Parking areas, new roads, staging, storage, excavation, and disposal site locations shall be confined to the smallest areas possible. These areas shall be flagged and disturbance activities, vehicles, and equipment shall be confined to these flagged areas. When consultation with the Resource Agency is required, such Resource Agency may impose additional requirements.

3. To prevent inadvertent entrapment of desert kit foxes, badgers, or other animals during construction, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered with plywood or similar materials at the close of each working day, or provided with one or more escape ramps constructed of earth fill or wooden planks that are no less than 12 inches wide and secured at the top and spaced at 100 foot intervals. Covered and non-covered holes or trenches shall be thoroughly inspected for trapped animals by a qualified biologist or their biological monitor at the beginning and end of each day, including non-work days. Immediately before such holes or trenches are filled, they shall again be thoroughly inspected by trained staff approved by the retained qualified biologist for trapped animals. If trapped animals are observed, escape ramps or structures shall be installed immediately to allow escape. If a listed species is trapped, the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife, as appropriate for the species, and Kern County Planning and Natural Resources Department shall be contacted immediately.

4. Burrowing owls, mammals, and nesting birds can use construction pipes, culverts, or similar structures for refuge or nesting. Therefore, all construction pipes, culverts, or similar structures with a diameter of 4 inches or more that are stored at a generation tie-line installation site for one or more overnight periods shall be thoroughly inspected for special-status wildlife or nesting birds before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If an animal is discovered inside a pipe, that section of pipe shall not be moved or disturbed in any way until a qualified biologist has been consulted and the animal has either moved from the structure on its own accord or until the animal has been captured and relocated by a qualified biologist holding the appropriate handling permits from the Resource Agencies.

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 5. No vehicle or equipment parked on the tie-line sites shall be moved prior to inspecting the ground beneath the vehicle or equipment for the presence of wildlife. If present, the animal shall be left to move on its own, or relocated by a qualified biologist holding the appropriate handling permits from the Resource Agencies. No one shall be allowed to touch a listed species without authorization from the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.<br>6. Vehicular traffic to and from the tie-line sites shall use existing routes of travel. Cross country vehicle and equipment use outside designated work areas shall be prohibited.<br>7. A speed limit of 10 miles per hour shall be enforced within the limits of the generation tie-line installation project.<br>8. Spoils shall be stockpiled in disturbed areas that lack native vegetation when possible. Best management practices (BMPs) shall be employed to prevent erosion in accordance with the proposed project's Stormwater Pollution Prevention Plan (SWPPP) or Erosion Control Plan. All detected erosion shall be remedied within 2 days of discovery or as described in the SWPPP or Erosion Control Plan. Spoils that have been stockpiled and inactive for greater than 10 days shall be inspected by a qualified biologist for signs of special-status wildlife before moving or disturbing the spoils.<br>9. No refueling within or adjacent to drainages or native desert habitats (within 150 feet) shall be permitted. Contractor equipment shall be fueled on a paved area, checked for leaks prior to operation and repaired as necessary.<br>10. The project proponent shall submit a Maintenance and Trash Abatement/Pest Management Program to the Kern County Planning and Natural Resources Department for review and approval. The program shall include, but not limited to the following:<br>a. The project proponent/operator shall clear debris from the project area each day during construction and decommissioning of the generation tie-lines.<br>b. Trash and food items shall be contained in closed containers to be locked at the end of the day and removed each day during construction and decommissioning of the generation tie-lines to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs.<br>c. The project proponent/operator shall erect a sign with contact information for the project proponent/operator's maintenance staff at each generation tie-line site during construction and decommissioning of gen-tie poles, as required by the Kern County Planning and Natural Resources Department.<br>d. Receptacles shall include provisions for a locking system to prevent pest/rodent access to food waste receptacles that shall be implemented.<br>11. Workers shall be prohibited from bringing pets and firearms to the project area and from feeding wildlife.<br>Collection of any plant or intentional killing of wildlife species shall be prohibited.<br>**MM 3.5-5b: Raven Management Plan.** A Raven Management Plan shall be prepared and the project will contribute to the U.S. Fish and Wildlife Service Regional Raven Management Program. The Plan will include at a minimum:<br>1. Identification of all common raven nests along the generation tie-line routes during installation/construction.<br>2. Weekly inspections during construction under all nests along the generation tie-line route for evidence of raven predation (e.g., bones, carcasses, etc.) and if evidence of listed-species predation is noted, submit a | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | report to the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and the Kern County Planning and Natural Resources Department within five calendar days; and<br>3. Provisions for the management of trash and water that could attract common ravens during the construction and decommissioning phases of the generation tie-line installation.<br>The project proponent/operator shall be required to participate in the regional comprehensive raven management plan, to address biological resources; the project proponent/operator shall be subject to compensation through the payment of a one-time fee not to exceed $150 and no less than $105 per disturbed acre of land during construction of gen-tie pole locations, as established by the Desert Managers Group. Payment shall be made prior to starting construction activities. Evidence of the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife determination and payment of any required fees shall be submitted to the Kern County Planning and Natural Resources Department.<br>**MM 3.5-6b Avian Power Line Specifications:** For generation tie-line construction, the project proponent/operator shall:<br>1. Construct all generation tie-lines to the 2006 Avian Power Line Interaction Committee Guidelines specifications to protect birds from electrocution and collision. Appropriate notes regarding these specifications shall be included on any grading permit, building permit or final map.<br>2. After construction, submit written documentation to the Kern County Planning and Natural Resources Department, and the California State Lands Commission, verifying that all generation tie- lines are constructed to the 2006 Avian Power Line Interaction Committee Guidelines. The project proponent/operator shall conform to the latest practices (as outlined in the 2006 Avian Power Line Interaction Committee Guidelines document) to protect birds from electrocution and collision.<br>Install power collection and generation tie-lines utilizing Avian Power Line Interaction Committee standards for collision reducing techniques as outlined in Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee, 2006).<br>**MM 3.5-7b: Nesting Birds and Raptors.** To mitigate for potential impacts to special-status birds and birds protected under the Migratory Bird Treaty Act and California Fish and Game Code during generation tie line route construction and decommissioning activities, the following measures shall be implemented as part of the approval for a grading or building permit.<br>1. During the avian nesting season (February 1 – August 31), a qualified biologist shall conduct a preconstruction avian nesting survey no more than 7 days prior to initial vegetation clearing. Surveys need not be conducted for the entire project site at one time; they may be phased so that surveys occur within 7 days prior to clearing of specific areas of the generation tie-lines. The surveying biologist must be qualified to determine the species, status, and nesting stage without causing intrusive disturbance. At no time shall the biologist be allowed to handle the nest or its eggs. The survey shall cover all reasonably potential nesting locations on and within 500 feet of the tie line site—this including ground nesting where species, such as California horned lark and killdeer might nest, all shrubs that could support nests, and suitable raptor nest sites such as nearby trees and power poles. Access shall be granted on private offsite properties prior to conducting surveys on private land. If access is not obtainable, the biologist shall survey these areas from the nearest vantage point with use of spotting scopes or binoculars.<br>2. If generation tie-line construction is scheduled to occur during the non-nesting season (September 1 through February 1), no preconstruction surveys or additional measures are required for non-listed avian species. | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 3. If generation tie-line construction begins in the non-nesting season and proceeds continuously into the nesting season within any particular construction or decommissioning area, no surveys are required for non-listed avian species so long as all suitable nesting sites have been cleared from active construction/decommissioning areas.<br>4. If active nests are found, a 100-foot no-disturbance buffer shall be created around passerine species' nests unless adjusted by the qualified biologist based on the needs and sensitivities of individual species, and a 300-foot no-disturbance buffer around non-listed raptor species' nests (or a suitable distance otherwise determined in consultation with California Department of Fish and Wildlife). These buffers shall remain in effect until a qualified wildlife biologist has determined that the birds have fledged or the proposed project component(s) have been redesigned to avoid the area. All no-disturbance buffers shall be delineated in the field with visible flagging or fencing materia**l.**<br><br>**MM 3.5-8b: Pre-construction Desert Tortoise Surveys**. Within 14 days prior to the commencement of any ground-disturbing activities for generation tie-line construction the project proponent shall conduct preconstruction surveys for desert tortoise within each generation tie-line construction site. The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service protocol (2010). If no burrows or tortoises are discovered during preconstruction surveys, no further mitigation is necessary. A survey shall be submitted with supporting evidence included such as photographs of areas/locations that may be suitable for this habitat, etc.<br><br>If burrows or tortoises are identified during preconstruction surveys, project proponent shall be required to:<br>1. Potential burrows will be buffered by 30 feet unless they can be shown to be unoccupied or the authorized biologist believes a smaller buffer is appropriate in order to protect underground burrows. Examples of situations where smaller buffers may be appropriate may include: burrows obviously head in different direction from the impact; taking into consideration the type of activity near the burrow (i.e., will it have potential to crush a burrow); is the burrow adjacent to an existing thoroughfare that receives vehicle use already and is the proposed activity similar in nature etc.<br>2. All activities shall cease within 200 feet of tortoises and the tortoises shall be allowed to move off the site on their own. If desert tortoises occur in a work area and they will not leave of their own accord, then it will be necessary to coordinate with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife. Physical relocation of a desert tortoise may not occur unless approved by the wildlife agencies and this may require authorizations pursuant to Incidental Take Permits from the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife.<br>3. Should the applicant obtain a permit for the incidental take of desert tortoise, the applicant shall develop a plan for desert tortoise translocation and monitoring prior to project construction. The plan shall provide the framework for implementing the following measures:<br>a. Clearance surveys shall occur on a daily basis where construction activities occur within or adjacent to suitable desert tortoise habitat.<br>b. Any desert tortoises found during clearance surveys or pre-construction surveys, if avoiding the tortoise(s) is not feasible, shall be placed in suitable, undisturbed habitat within 500 meters (1,640 feet) of their original location. The qualified desert tortoise biologist shall determine the best location for release, based on the condition of the vegetation, soil, other habitat features, and the proximity to human activities. If desert tortoises are found in a construction area where fencing was deemed unnecessary, work will cease until the qualified desert tortoise biologist moves the tortoise(s) within 500 meters (1,640 feet) of their original location. | |

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| | | c. Relocation of any tortoises shall follow the Guidelines for Handling Desert Tortoises during Construction Projects (Desert Tortoise Council 1994, revised 1999).<br>d. An Authorized Biologist shall remain on site until all vegetation is cleared and, at a minimum, conduct site and fence inspections on a monthly basis throughout construction in order to ensure project compliance with mitigation measures.<br>e. An Authorized Biologist shall remain on-call throughout fencing and grading activities in the event a desert tortoise wanders onto the gen-tie-line site.<br>f. If an incidental take permit is being obtained, compensatory mitigation for the loss of desert tortoise habitat shall be provided through purchase of credit from an existing mitigation bank, such as the Desert Tortoise Natural Area, private purchase of mitigation lands, or onsite preservation, as approved by the resource agencies. Compensatory mitigation shall be provided at a 1:1 ratio to reduce potential effects to less-than-significant levels.<br>g. Develop a plan for desert tortoise translocation and monitoring prior to project construction. The plan shall provide the framework for implementing the following measures:<br>h. If a permanent tortoise proof wild-friendly fence is practicable, a fence shall be installed around all gen-tie line construction areas prior to the initiation of earth disturbing activities, in coordination with the Lead Biologist or on-site qualified biological monitor. The fence shall be constructed of 0.5-inch mesh hardware cloth and extend 18 inches above ground and 12 inches below ground. Where burial of the fence is not possible, the lower 12 inches shall be folded outward against the ground and fastened to the ground so as to prevent desert tortoise entry. The fence shall be supported sufficiently to maintain its integrity, be checked at least monthly during gen-tie line construction, and maintained when necessary by the project proponent to ensure its integrity. Provisions shall be made for closing off the fence at the point of vehicle entry. Common raven perching deterrents shall be installed as part of the fence construction.<br>i. After fence installation, an Authorized Biologist shall conduct a preconstruction survey for desert tortoise within the construction site. An Authorized Biologist has the appropriate education and experience to accomplish biological monitoring and mitigation tasks and is approved by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. Two surveys without finding any desert tortoises or new desert tortoise sign shall occur prior to declaring the site clear of desert tortoises.<br>j. All burrows that could provide shelter for a desert tortoise shall be hand-excavated prior to ground-disturbing activities.<br>k. An Authorized Biologist shall remain on site until all vegetation is cleared and, at a minimum, conduct site and fence inspections on a monthly basis throughout construction in order to ensure project compliance with mitigation measures.<br>l. An Authorized Biologist shall remain on-call throughout fencing and grading activities in the event a desert tortoise wanders onto the tie-line site.<br>m. If an ITP is being obtained, compensatory mitigation for the loss of desert tortoise habitat shall be provided through purchase of credit from an existing mitigation bank, such as the Desert Tortoise Natural Area, private purchase of mitigation lands, or on-site preservation, as approved by the resource agencies. Compensatory mitigation shall be provided at a 1:1 ratio to reduce potential effects to less-than-significant levels. | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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4. The Raven Management Plan developed for the construction of the generation tie-line sites, (as noted in section MM 3.5-5) shall include:
    a. Identification of all common raven nests within the site during construction.
    b. Weekly inspections during construction under all nests in the tie-line sites for evidence of desert tortoise predation (e.g., scute`s, shells, etc.).

If evidence of desert tortoise predation is noted, a report shall be submitted to the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and the Kern County Planning and Natural Resources Department within five calendar days.

**MM 3.5-9b: Preconstruction Burrowing Owl Surveys.** A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience, as demonstrated in the submitted resume for approval with the Kern County Planning and Natural Resources Department) shall conduct preconstruction surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows within 14 days prior to ground-disturbing for generation tie-line construction activities (i.e., vegetation clearance, grading, tilling). The survey methodology shall be consistent with the methods outlined in the 2012 California Department of Fish and Game Staff Report on Burrowing Owl Mitigation and including the following:

1. Surveys shall be conducted by walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls. Surveys may be conducted concurrently with desert tortoise preconstruction surveys. Photographic submissions to the Kern County Planning and Natural Resources Department as part of survey results are encouraged regardless of surveys results.
2. As each burrow is investigated, surveying biologists shall also look for signs of American badger and desert kit fox. Copies of the survey results (including photographs) shall be submitted to California Department of Fish and Wildlife and the Kern County Planning and Natural Resources Department as part of the monthly biological monitoring reporting requirements.
3. If burrowing owls are detected onsite, no ground-disturbing activities shall be permitted within a buffer of no fewer than 100 meters (330 feet) from an active burrow during the breeding season (i.e., February 1 to August 31), unless otherwise authorized by California Department of Fish and Wildlife. During the non-breeding (winter) season (i.e., September 1 to January 31), ground-disturbing work can proceed as long as the work occurs no closer than 50 meters (165 feet) from the burrow. Depending on the level of disturbance, a smaller buffer may be established in consultation with California Department of Fish and Wildlife.
4. If burrow avoidance is infeasible during the non-breeding season or during the breeding season where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, a qualified biologist shall implement a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 California Department of Fish and Game Staff Report on Burrowing Owl Mitigation.
5. If passive relocation is required, the qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and Mitigation Land Management Plan in accordance with 2012 California Department of Fish and Game Staff Report on Burrowing Owl Mitigation for review and approval by California Department of Fish and Wildlife prior to passive relocation activities. The Mitigation Land Management Plan shall include a requirement for the permanent conservation of offsite Burrowing Owl Passive Relocation Compensatory Mitigation. Additional consultation between CDFW and the project owner may be required with CDFW. All final approvals, (including potential conservation easements) and consultation materials shall be submitted to the Kern County Planning and Natural Resources Department.

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| | | **MM 3.5-10b: Special-Status Mammals Management Plan.** A Special-Status Mammals Management Plan will be written to avoid and minimize impacts to the Mohave ground squirrel, desert kit fox, and American badger if these resources are determined to be present on the proposed generation construction tie-line sites. If no Mohave ground squirrels are found during focused surveys, this plan will not be required and the following measures will be used to minimize impacts to American badger:<br>1. All dens and burrows large enough to be used by desert kit fox or American badger and in areas of potential direct impacts from generation tie-line construction (from crushing of the burrows and dens) will be carefully excavated to passively relocate these species from the immediate area. These dens will be observed by remote camera for a minimum of 3 days prior to excavation. If any sign of breeding, kit fox, or American badger is present during this time, three additional days of observation will be conducted to determine whether the burrow supports and active nest or natal den. No burrows supporting a nest or natal dens will be excavated until ongoing cameras monitoring shows no behaviors related to nesting or a natal den are observed, or until outside the period of nesting and natal den activity (approximately December through February).<br>2. Speed limits on generation tie-line components will be a maximum of 20 miles per hour during the day and 10 miles per hour during the night to avoid vehicle collisions.<br>3. If any desert kit fox or American badgers are found dead, ill, or injured on the project components, California Department of Fish and Wildlife will be notified with 24 hours to determine an appropriate course of action. Mortalities will be immediately stored in a project freezer until California Department of Fish and Wildlife determines any potential needs for necropsy. | |
| | | **MM 3.5-11b: Trench Monitoring Requirements.** During construction and decommissioning of the generation tie-line routes, all trenches or holes more than 6 inches deep shall be provided with one or more escape ramps constructed of earthen fill or wooden planks (with a minimum 1 foot in width) for the protection of wildlife species and must be inspected by the Lead Biologist, qualified biological monitor, designated compliance manager, project operator, or contractor prior to being filled.<br>1. Any such features that are left open overnight will be searched each day and prior to construction activities to ensure no animals are trapped. Work will not continue until trapped animals have moved out of open trenches.<br>2. All open holes, sumps, and trenches within the Project footprint shall be inspected at the beginning, middle, and end of each day for wildlife.<br>3. All trenches, holes, sumps, and other excavations with sidewalls steeper than a 1:1 (45 degree) slope and that are between 2 and 8 feet deep shall be covered, when workers or equipment are not actively working in the excavation, which includes cessation of work overnight, or shall have an escape ramp of earth or a non-slip material (with a minimum 1 foot in width) with a less than 1:1 (45 degree) slope. All trenches, holes, and other excavations with sidewalls steeper than a 1:1 (45 degree) slope and greater than 8 feet deep shall be covered or have an escape ramp of earth or a non-slip material (with a minimum 1-foot in width) with a less than 1:1 (45 degree) slope, when workers or equipment are not actively working in the excavation and at the end of each work day. Where an escape ramp is required, it shall be placed every 300 feet. To prevent inadvertent entrapment of wildlife, when covers are required according to the conditions outlined above, a qualified biological monitor or designated compliance manager shall oversee the covering of all excavated, trenches, holes, sumps, or other excavations with a greater than 1:1 (45 degree) slope of any depth with barrier material (such as hardware cloth) at the close of each working day such that wildlife are unable to dig or squeeze under the barrier and become entrapped, or excavations shall have an escape ramp of earth or a non-slip material (with a minimum 1 foot in width) with a less than 1:1 (45 degree) slope. | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 4. The outer 2 feet of excavation cover, shall conform to solid ground so that gaps do not occur between the cover and the ground and secured with soil staples or similar means to prevent gaps. Each morning, mid-day, the end of each day (including weekends and any other non-work days), and immediately before trenches, holes, sumps, or other excavations are back-filled, a qualified biological monitor or designated compliance manager shall thoroughly inspect for wildlife. If wildlife is observed, all activities in the vicinity shall cease and the onsite qualified biological monitor or Lead Biologist shall be consulted.<br>5. Trenches, holes, sumps, or other excavations that are covered long term shall be inspected at the beginning of each working day to ensure inadvertent entrapment has not occurred.<br>6. If any worker discovers that wildlife has become trapped, all activities in the vicinity shall cease and Lead biologist or the onsite qualified biological monitor shall be notified immediately. Project workers guided by the Lead Biologist or qualified biological monitor shall allow the trapped wildlife to escape unimpeded before activities are allowed to continue. If the entrapped animal is a federal- or state-listed species and an ITP has been acquired by the project proponent for that species, only a Designated Biologist and/or Authorized Biologist as defined in the terms of the ITP(s) may capture and relocated the animal in accordance with the project ITP provisions. If the entrapped animal is a Federal- or State-listed species and an ITP has not been acquired by the project proponent for that species, the project proponent should contact the appropriate wildlife agency immediately.<br>7. A log shall be kept and provided to the Kern County Planning and Natural Resources Department monthly during construction and decommissioning indicating compliance. | |
| | | **MM 3.5-12b Vegetation Salvage Mitigation and Monitoring Plan (VSMMP).** If required by CDFW or LRWQCB, a Vegetation Salvage Mitigation and Monitoring Plan (VSMMP) shall be prepared that outlines the compensatory mitigation in coordination with the LRWQCB and CDFW.<br>1. If on-site mitigation is proposed, the VSMMP shall identify those portions of the site, such as relocated drainage routes, that contain suitable characteristics (e.g., hydrology) for restoration of alluvial desert scrub. Determination of mitigation adequacy shall be based on comparison of the restored vegetation habitat with similar, undisturbed habitat in the site vicinity (such as upstream or downstream of the site).<br>2. The VSMMP shall include remedial measures in the event that performance criteria are not met.<br>3. If mitigation is implemented offsite, mitigation lands shall be comprised of similar or higher quality alluvial desert scrub and preferably located in the vicinity of the site or watershed. Off-site land shall be preserved through a deed restriction or conservation easement and the VSMMP shall identify an approach for funding assurance for the long-term management of the conserved land.<br>4. Copies of any coordination, permits, etc., with LRWQCB and CDFW shall be provided to the Kern County Planning and Natural Resources Department. | |
| **Impact 3.5-2**: The project would have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish | Potentially significant | **Mitigation Measures MM 3.5-1b, MM 3.5-2b, and**<br>**MM 3.5-14b: Joshua Tree Impact Plan.** Prior to issuance of grading or building permits for the generation tie-line installation the applicant shall develop a Joshua Tree Impact Plan. The Plan shall be prepared by a qualified biologist preapproved by the Kern County Planning and Natural Resources Department and who is familiar with Western Mojave Desert species and ecosystems. At a minimum, the plan shall include the following:<br>1. Demonstration of full avoidance of Joshua trees as part of construction Indication of the number of trees and total area of Joshua tree woodland that would be impacted including a discussion of Joshua tree population | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| and Wildlife or the U.S. Fish and Wildlife Service. | | age and health and the number of Joshua trees that could be relocated within the buffer area of the generation tie-lines (and suitable areas elsewhere).<br>2. Methods shall be specified for avoiding specific Joshua tree(s) and suitable candidates for translocation identified.<br>3. Avoidance measures during generation tie-line construction activities, such as delineating work areas and specific Joshua trees that shall be avoided. If necessary, Joshua trees should be flagged for protection or translocated to the onsite buffer area within sparsely vegetated and/or disturbed areas that are suitable for planting native desert species.<br>4. Monitoring requirements for any translocated Joshua trees that will be relocated. Post-monitoring of all translocated Joshua trees, if any, shall be required a minimum of 3 years following relocation to verify that the trees have adapted and are in good health. The Plan shall identify contingency measures if a tree or group of trees die, such as replanting and continued monitoring, or an in lieu fee payment.<br>5. Detail relocation methods. The root ball shall be preserved during relocation of Joshua trees. Preferably, a tree spade should be used to relocate Joshua trees in order to preserve the entirety of the tree's root ball. Success of relocated trees shall be a minimum of 90 percent after 3 years. The Plan shall identify the appropriate time of year for transplanting Joshua trees, and shall consider the plant's original and transplanted physical orientation, prevailing wind direction, soil type of the original and transplanted locations, and other related attributes which may affect the successful transplantation of the Joshua tree(s). In-lieu fee monetary funding may be applied for any tree not meeting the 90 percent success rate.<br>6. Detail of a 3-year maintenance program for any planned relocated Joshua trees on the site, such as weed maintenance, supplemental irrigation, and support stakes.<br>7. The plan shall specify that a qualified biologist or biological monitor shall monitor construction and all Joshua trees removed or damaged. A monitoring report shall be submitted to the Kern County Planning and Natural Resources Department to document the condition of the Joshua trees annually for 3 years if any Joshua trees are relocated.<br>8. Identification of the total area of Joshua tree woodland and an estimate of the number of individual Joshua trees that will be removed and/or relocated for determining of the total funds needed to comply. | |
| | | **MM 3.5-15b: In-lieu of Fee for Loss of Joshua Tree Woodland.** The project proponent(s) may mitigate all or part of the project's impacts to Joshua tree woodlands by funding the acquisition and management in perpetuity of Joshua tree woodland, or habitats similar to those that contain impacted Joshua trees onsite that are located within the same bioregion and/or watershed, as approved by the Kern County Planning and Natural Resources Department. Funding and management shall be provided through a Kern County approved Conservation Plan, either through an existing mitigation bank (e.g., as managed by the City of Lancaster Parks, Recreation and Arts Department) or through a third-party entity such as the Wildlife Conservation Board or a regional Land Trust. The in-lieu fee shall provide sufficient funds to acquire appropriate lands to provide habitats containing Joshua trees at a 1:1 ratio for impacted lands, comparable to the habitat to be impacted by the project based on similar abundance and size of Joshua trees, similar co-dominant vegetation, suitable soils and hydrology, and similar levels of disturbance or habitat degradation (or lack thereof). The County-approved biologist shall submit confirmation of the total area of Joshua tree woodland and an estimate of the number of individual Joshua trees that will be removed. | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **Impact 3.5-3**: The project would have a substantial adverse impact on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. | Potentially significant | Mitigation Measures MM 3.5-1b, MM 3.5-2b, and<br>**MM 3.5-13b: Jurisdictional Waters Permitting.** Prior to construction, a formal jurisdictional delineation would be prepared for the project that describes these resources and the extent of jurisdiction under the CDFW and RWQCB. A review of streambeds along the proposed gen-tie routes has been prepared (Dudek 2018). If it is determined during final siting that ephemeral drainages cannot be avoided, the project applicant shall be subject to provision (a) as identified below:<br>1. If avoidance is not practical, prior to ground disturbance activities that could impact these aquatic features, the project applicant shall file a complete Report of Waste Discharge with the Lahontan RWQCB to obtain Waste Discharge Requirements and shall also consult with California Department of Fish and Wildlife on the need for a streambed alteration agreement. Correspondence and copies of reports shall be submitted to the Kern County Planning and Natural Resources Department.<br>2. Based on consultation with the Lahontan RWQCB and CDFW, if permits are required for the project, appropriate permits shall be obtained prior to disturbance of jurisdictional resources.<br>3. Compensatory mitigation for impacts to unvegetated streambeds/washes shall be identified and secured prior to disturbance of the features at a minimum 1:1 ratio, as approved by the RWQCB or CDFW either through onsite or offsite mitigation, or purchasing credits from an approved mitigation bank.<br>4. The project proponent shall comply with the compensatory mitigation required and proof of compliance, along with copies of permits obtained from RWQCB and/or CDFW, shall be provided to the Kern County Planning and Natural Resources Department. | Less than significant |
| **Impact 3.5-4**: The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. | Less than significant | No mitigation measures are required. | Less than significant |
| **Impact 3.5-5**: The project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. | Potentially significant | Mitigation Measures MM 3.5-14b and MM 3.5-15b | Less than significant |
| **Impact 3.5-6**: The project would conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. | Less than significant | None required | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **Cumulative** | Potentially significant | Mitigation Measures MM 3.5-1b through 3.5-15b | Less than significant |
| **3.6 Cultural and Paleontological Resources** | | | |
| **Impact 3.6-1**: The project would cause a substantial adverse change in the significance of a historical or unique archaeological resource. | Potentially significant | **MM 3.6-1b: Cultural Resources Personnel Professional Qualifications Standard.** The services of a qualified lead archaeologist meeting the secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2011) shall be retained by the project proponent to carry out all mitigation measures related to archaeological, cultural and historical resources. A qualified archeological and Native American monitor may also be retained in order to work with and consult with the lead archaeologist.<br>1. All ground-disturbing activities within 50-feet of resources (site SS-S-23; SS-S-10; and SS-S-30) per Cultural Resources Assessment of the Gen-Tie Routes by Dudek (Appendix B7) shall be avoided. If these resources cannot be avoided, all ground-disturbing activities within the generation tie-line area shall be monitored by a Native American monitor representing at last one of the Consulting Tribes (Appendix A5), along with the lead or archeological monitor. An Archaeological Monitoring Plan shall be prepared prior to any ground disturbing activity. Ground disturbing activities include, but are not limited to: mowing, brush clearance, grubbing, excavation, trenching, grading, cut and roll vegetation clearing, drilling, equipment laydown or parking.<br>2. Should any discovery be found during ground work or ground disturbing activities, the qualified Native American monitor and/or qualified archaeological monitor would halt all work within 60-feet of the find and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed. The lead archaeologist shall notify the applicant the Tribes and County of the discovery. All parties shall confer regarding the treatment of the discovered resource(s) and the lead archaeologist shall then prepare an Archaeological Treatment Plan for the discoveries. If consensus cannot be reached between all parties, the County shall make the final decision.<br>3. The archaeological monitor and qualified Native American monitor shall work under the supervision of the qualified archaeologist. The lead archaeologist, archaeological monitor, and qualified Native American monitor shall be provided all project documentation related to cultural resources within the project area prior to commencement of ground disturbance activities. Project documentation shall include but not be limited to previous cultural studies, surveys, maps, drawings, etc. Any modifications or updates to project documentation, including construction plans and schedules, shall immediately be provided to the qualified archa4.The lead archaeologist, archaeological monitor, and Native American monitor shall keep daily logs and the qualified archaeologist shall submit monthly written updates to the Kern County Planning and Natural Resources Department. After monitoring has been completed, the qualified archaeologist shall prepare a monitoring report detailing the results of monitoring. All discoveries are subject to proper recordation on California Department of Parks and Recreation (DPR) forms. All final documentation shall be submitted to the Kern County Planning and Natural Resources Department, to the consulting Tribes (Appendix A5) and to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.<br>**MM 3.6-2b: Worker Cultural Awareness Training Program.** Prior to the commencement of ground-disturbing activities, and for the duration of generation tie-line installation and decommissioning activities, a Worker Cultural Awareness Training Program shall be provided to all construction personnel prior to their commencing work at the generation tie-line sites. | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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1. The training shall be prepared and conducted by a qualified archaeologist in consultation with the qualified Native American Monitor. The training may be discontinued when ground disturbance is completed or suspended, but must resume when ground-disturbing activities resume.

2. A sticker shall be placed on hard hats indicating that the worker has completed the environmental/cultural/paleontological training. Construction personnel shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker.

3. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms shall be submitted to the Kern County Planning and Natural Resources Department.

The purpose of the Cultural Awareness Training Program shall be to inform and train construction personnel of the types of cultural resources that may be encountered during construction of the gen-tie lines, and to bring awareness to personnel of actions to be taken in the event of a cultural resources discovery. This may include: a discussion of applicable cultural resources statutes, regulations and related enforcement provisions; an overview of the prehistoric and historic environmental setting and context, as well as current cultural information regarding local tribal groups; samples or visuals of artifacts that might be found in the project area; a discussion of what prehistoric and historic archaeological deposits look like at the surface and when exposed during construction; and procedures to be followed in the event of an inadvertent discovery (see Mitigation Measure MM 3.6-4b).

**MM 3.6-3b: Archaeological and Native American Resources Monitoring.** Archaeological and Native American monitoring are both subject to consultation with the Native American Tribal Resource Agencies under Section106. As such, the requirements of various stakeholders must be considered and accommodation made wherever feasible. Therefore, specific archaeological and Native American monitoring details cannot be included herein. However, at a minimum it is expected that the developer shall retain a qualified archaeological monitor for project-related ground disturbing activities for the purpose of identifying and avoiding adverse effects to significant archaeological resources.

Ground disturbing activities include, but are not limited to, brush clearance, grubbing, excavation, trenching, grading, and drilling. Areas requiring monitoring for the generation tie-line installation and the level of monitoring shall be developed by the Tribal Stakeholders and Kern County Planning and Natural Resources Department, in coordination with the qualified archaeologist, and shall be detailed in the Cultural Resources Management Plan for the gen-tie line route. Any archaeological monitors shall be, or work under the direct supervision of, a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's standards for professional archaeology and shall be approved by Kern County Planning and Natural Resources Department. The monitors shall be familiar with the types of historical and prehistoric resources that could be encountered within the project area.

The archaeological monitor shall ensure that personnel performing ground-disturbing activities are displaying the appropriate decal on their hardhat demonstrating their CR Awareness training under Mitigation Measure MM 3.6-3b. The archaeological monitors shall record soil samples and artifact/ecofact material as warranted for analysis. The archaeological monitors shall be present on the generation tie-line site according to a schedule as detailed in the Cultural Resources Management Plan for the gen-tie line route. The monitors shall maintain a daily log of activities, which will be appended to a final monitoring report that shall be submitted to the Kern County Planning and Natural Resources Department, and Southern San Joaquin Valley Archaeological Information Center.

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | Specific monitoring reporting procedures shall be detailed in the Cultural Resources Management Plan for the gen-tie line routes.<br><br>Section 106 consultation with Native American tribes may result in a need for one or more Native American monitors. The specific nature of the monitoring activity performed by Native American tribes can vary and therefore the requirements for Native American monitors will be elicited as part of consultation.<br><br>**MM 3.6-4b: Inadvertent Discoveries.** During generation tie-line construction and decommissioning, should subsurface cultural or paleontological resources be discovered, all activity within 60 feet of the find shall stop and a qualified paleontologist shall be contacted to assess the significance of the find. The area of the discovery shall be marked off as an Environmentally Sensitive Area (ESA) and a physical demarcation/barrier constructed. All entrance to the area shall be avoided until the discovery is assessed by the qualified archaeologist and/or Native American representative, if the discovery involves resources of interest to Native American tribes, including but not limited to prehistoric archaeological sites or tribal cultural resources. If the qualified archaeologist, in consultation with the Native American representative(s) determines the resource is significant (i.e., qualifies as a historic property, historical resource, or unique archaeological resource), then the archaeologist shall determine appropriate avoidance measures or other appropriate mitigation. Per CEQA Guidelines Section 15126.4(b)(3), project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Guidelines Section 15126.4(b)(3)(c), if it is demonstrated that resources cannot be feasibly avoided, the qualified archaeologist, in consultation with a Designated Native American monitor, shall develop additional treatment measures which may include data recovery or other appropriate measures or shall implement the provisions for mitigative treatments detailed in the Paleontological Resources Management Plan for the gen-tie line route (as required by MM 3.6-5b). Work shall not resume within 60 feet of the discovery until permission is received from the Paleontologist and/or Native American representative(s), and if in disagreement, the Kern County Planning and Natural Resources Department shall be consulted. | |
| **Impact 3.6-2**: The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. | Potentially significant | **MM 3.6-5b: Paleontological Resources Mitigation and Monitoring Plan.** The developer shall retain a qualified paleontologist to prepare a Paleontological Resources Mitigation and Monitoring Plan for implementation during construction of the generation tie lines. The minimum requirement for professional paleontological work is a 4-year undergraduate program and Master of Science degree, although a doctoral degree may be required for certain specialties; a qualified paleontologist is one that has experience in research, field, and laboratory methods for paleontological resources, including experience in fossil salvage, stratigraphy, fossil preparation, and identification, with experience in California. The Paleontological Resources Mitigation and Monitoring Plan shall be submitted to the Kern County Planning and Natural Resources Department for review and approval prior to the start of grading or construction and shall include the following:<br><br>1. Procedures for the discovery, recovery, and salvage of paleontological resources encountered during construction, if any, in accordance with standards for recovery established by the Society of Vertebrate Paleontology.<br><br>2. Verification that the developer has an agreement with a recognized museum repository (such as the Natural History Museum of Los Angeles County), for the disposition of recovered fossils and that the fossils shall be prepared prior to submittal to the repository as required by the repository (e.g., prepared, analyzed at a laboratory, curated, or cataloged).<br><br>3. Description of monitoring reports that will be prepared, which shall include daily logs and a final monitoring report with an itemized list of specimens found to be submitted to the Kern County Planning and Natural Resources Department and the Southern San Joaquin Valley Information Center at California State University, Bakersfield within 90 days of the completion of monitoring. Consultation of any find in the right- | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | of-way shall be conducted the Southern San Joaquin Valley Information Center at California State University, Bakersfield.<br>4. The project applicant shall provide for the permanent curation of recovered materials from lands under the County of Kern jurisdiction at a federally approved curation facility, such as the Tejon Tribal Curation Facility.<br><br>**MM 3.6-6b: Worker Paleontological Resources Awareness Training Program.** Prior to the commencement of ground-disturbing activities, and for the duration of construction activities, a Worker Paleontological Awareness Training Program shall be provided to all construction personnel prior to their commencing work on installation of generation tie-line sites.<br>1. The training may be performed in concert with the archaeological/cultural resources training prior to the onset of the generation tie-line installation. The training shall be prepared and conducted by a qualified paleontologist. The training may be in the form of a video.<br>2. The training may be discontinued when ground disturbance is completed or suspended, but must resume when ground-disturbing activities resume.<br>3. A sticker shall be placed on hard hats indicating that the worker has completed the environmental/cultural/paleontological training.<br>4. Construction personnel shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker.<br>5. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms shall be submitted to the Kern County Planning and Natural Resources Department.<br>6. The purpose of the Paleontological Awareness Training Program shall be to inform and train construction personnel of the types of paleontological resources that may be encountered during construction, and to bring awareness to personnel of actions to be taken in the event of a paleontological resources discovery. This may include: a discussion of applicable paleontological resources statues, regulations and related enforcement provisions; samples or visuals of fossils that might be found in the project area; implementation of the Paleontological Resources Mitigation and Monitoring Plan; and procedures to be followed in the event of an inadvertent discovery.<br>7. Consultation on any find in the right-of-way shall be conducted with the Natural History Museum of Los Angeles County.<br><br>**MM 3.6-7b: Paleontological Resources Monitoring.** The developer shall provide for a qualified paleontologist or an individual working under direct supervision of a qualified paleontologist to monitor construction activities in areas where deeper excavations may be needed (greater than 10 feet). The duration and timing of the monitoring, which shall be set in the Paleontological Resources Mitigation and Monitoring Plan, shall be determined by the qualified paleontologist, in consultation with the Tribal Stakeholders and Kern County Planning and Natural Resources Department and based on the grading plans. Initially, all excavation or grading activities deeper than 10 feet shall be monitored. However, during the course of monitoring, if the paleontologist can demonstrate that the level of monitoring should be reduced, the paleontologist, in consultation with the Tribal Stakeholders and Kern County Planning and Natural Resources Department, may adjust the level of monitoring to circumstances warranted. If a resource is encountered, the monitor will implement the procedures of the Paleontological Resources Mitigation and Monitoring Plan. If recovery of a large or unusually productive fossil occurrence is necessary, the following actions shall be taken: | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 1. The paleontological monitor shall immediately notify the project developer, who shall contact the Tribal Stakeholders and Kern County Planning and Natural Resources Department.<br>2. Construction activities in the immediate vicinity of the site shall stop until authorization for work to continue is provided by the Tribal Stakeholders and Kern County Planning and Natural Resources Department.<br>3. Treatment and subsequent donation of fossils to a repository, along with the preparation of a report documenting the absence or discovery of fossil-related resources will be performed in accordance with the Paleontological Resources Mitigation and Monitoring Plan. | |
| **Impact 3.6-3**: The project would disturb human remains, including those interred outside of formal cemeteries. | Potentially significant | **MM 3.6-8b: Discovery of Human Remains.** In the event of inadvertent discovery of human remains during construction and decommissioning of generation tie-lines, all work shall be halted and the Kern County Coroner shall be contacted to evaluate the remains and follow the procedures and protocols set forth in Section 15064.4 (e)(1) of the California Environmental Quality Act Guidelines. At that time, the project proponent shall contact the Kern County Planning and Natural Resources Department regarding the find. If the County Coroner determines the remains are Native American in origin, the Coroner shall contact the Native American Heritage Commission in accordance with Health and Safety Code Section 7050.5 subdivision c, and Public Resources Code Section 5097.98 (as amended by Assembly Bill 2641). The Native American Heritage Commission shall designate a Most Likely Descendent (MLD) for the remains per Public Resources Code 5097.98. Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendent regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. If the remains are determined to be neither of forensic value to the Coroner, nor of Native American origin, provisions of the California Health and Safety Code (7100 et. seq.) directing identification of the next-of-kin will apply. | Less than significant |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.6-1b through MM 3.6-8b | Less than significant |
| **3.7 Geology, Minerals, and Soils** | | | |
| **Impact 3.7-1**: The project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. | Less than significant | **MM 3.7-1b: Conduct Geotechnical Study.** Prior to the issuance of building or grading permits for the generation tie-line installation, the project proponent shall conduct a full geotechnical study to evaluate soil conditions and geologic hazards on the sites and submit it to the Kern County Public Works Department and Department for review and approval.<br>1. The geotechnical study must be signed by a California-registered and licensed professional engineer and must include, but not limited to, the following:<br>a. Location of fault traces and potential for surface rupture and groundshaking potential;<br>b. Maximum considered earthquake and associated ground acceleration;<br>c. Potential for seismically induced liquefaction, landslides, differential settlement, and mudflows;<br>d. Stability of any existing or proposed cut-and-fill slopes;<br>e. Collapsible or expansive soils;<br>f. Foundation material type;<br>g. Potential for wind erosion, water erosion, sedimentation, and flooding; | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | h. Location and description of unprotected drainage that could be impacted by the proposed development; and,<br>i. Recommendations for placement and design of facilities, foundations, and remediation of unstable ground.<br>2. The project proponent shall determine the final siting of project facilities based on the results of the geotechnical study and implement recommended measures to minimize geologic hazards. The project proponent shall not locate project facilities on or immediately adjacent to a fault trace. All structures shall be offset at least 100 feet from any mapped fault trace. Alternatively, a detailed fault trenching investigation may be performed to accurately locate the fault trace(s) to avoid sighting improvements on or close to these fault structures and to evaluate the risk of fault rupture. After locating the fault, accurate setback distances can be proposed.<br>3. The Kern County Public Works Department shall evaluate any final generation tie line siting design developed prior to the issuance of any building or grading permits to verify that geological constraints have been avoided. | |
| | | **MM 3.7-2b: Comply Seismic Safety Requirements.** Prior to the issuance of grading permits, the project proponent shall retain a California registered and licensed engineer to design the project generation tie lines to withstand probable seismically induced ground shaking at the site. All grading and construction onsite shall adhere to the specifications, procedures, and site conditions contained in the final design plans, which shall be fully compliant with the seismic recommendations of the California-registered professional engineer. The procedures and site conditions shall encompass site preparation, foundation specifications, and protection measures for buried metal. The final structural design shall be subject to approval and follow-up inspection by the Kern County Building Inspection Department. Final design requirements shall be provided to the onsite construction supervisor and the Kern County Building Inspector to ensure compliance. A copy of the approved design shall be submitted to the Kern County Planning and Natural Resources Department. | |
| **Impact 3.7-2**: The project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. | Less than significant | Mitigation Measure MM 3.7-2b | Less than significant |
| **Impact 3.7-3**: The project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic related ground failure, including liquefaction. | Less than significant | Mitigation Measure MM 3.7-1b | Less than significant |
| **Impact 3.7-4**: The project would result in substantial soil erosion or the loss of topsoil. | Less than significant | None required | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **Impact 3.7-5**: The project is located on a geologic unit or soil that is unstable, or that would become unstable as result of the project, and potentially result in onsite or onsite landslide, lateral spreading, subsidence, liquefaction, or collapse. | Less than significant | None required | Less than significant |
| **Impact 3.7-6:** The project is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. | Less than significant | Mitigation Measures MM 3.7-1b, MM 3.7-2b, and<br>**MM 3.7-3b: Generation-Tie Line Grading.** The project proponent shall limit grading to the minimum area necessary for construction of the generation tie lines. Prior to the initiation of construction, the project proponent shall retain a California registered and licensed professional engineer to submit final grading earthwork plans prior to generation tie line construction to the Kern County Public Works for approval.<br><br>**MM 3.7-4b: Soil Erosion and Sedimentation Control Plan.** The project proponent shall prepare a Soil Erosion and Sedimentation Control Plan to mitigate potential loss of soil and erosion. The plan shall be prepared by a California registered and licensed civil engineer or other authorized professional and submitted for review and approval by the Kern County Engineering, Surveying and Permit Services Department. | Less than significant |
| **Impact 3.7-7**: The project has soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater. | Less than significant | None required | Less than significant |
| **Impact 3.7-8**: The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. | Less than significant | None required | Less than significant |
| **Impact 3.7-9**: The project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. | Less than significant | None required | Less than significant |
| **Cumulative** | Less than significant | None required | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **3.8 Greenhouse Gas Emissions** | | | |
| **Impact 3.8-1**: The project would generate greenhouse gas emissions, either directly or indirectly, that may have an impact on the environment. | Less than significant | Mitigation Measures MM 3.3-1b through MM 3.3-8b | Less than significant |
| **Impact 3.8-2**: The project could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. | Less than significant | Mitigation Measures MM 3.3-1b through MM 3.3-8b | Less than significant |
| **Cumulative** | Less than significant | Mitigation Measures MM 3.3-1b through MM 3.3-8b | Less than significant |
| **3.9 Hazardous Materials and Safety** | | | |
| **Impact 3.9-1**: The project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. | Potentially significant | **MM 3.9-1b: Hazardous Materials Business Plan.** Prior to the issuance of grading or building permits, and throughout the life of the project, including decommissioning, the project proponent shall prepare and maintain a Hazardous Materials Business Plan (HMBP), as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 and in accordance with Kern County Ordinance Code 8.04.030, by submitting all required information to the California Environmental Reporting System (CERS) at http://cers.calepa.ca.gov/ for review and approval.<br>1. The HMBP shall:<br>a. Delineate hazardous material and hazardous waste storage areas;<br>b. Describe proper handling, storage, transport, and disposal techniques;<br>c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill;<br>d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction;<br>e. Establish public and agency notification procedures for spills and other emergencies including fires; and<br>f. Include procedures to avoid or minimize dust from existing residual pesticide and herbicide use that may be present on the site.<br>2. The project proponent shall provide that all contractors working on the project are familiar with the facility's HMBP as well as ensure that one copy is available at the generation tie-line sites at all times.<br>3. In addition, a copy of the approved HMBP from CERS shall be submitted to the Kern County Planning and Natural Resources Department for inclusion in the project's permanent record.<br>**MM 3.9-2b: Recycle Construction Waste.** During construction and decommissioning of generation tie-lines, debris and waste generated shall be recycled to the extent feasible. The project proponent/operator shall designate a Recycling Coordinator to facilitate recycling of all waste through coordination with the onsite contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes. The Recycling Coordinator shall also be responsible for ensuring that wastes requiring special disposal are handled according | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | to State and County regulations that are in effect at the time of disposal. The name and phone number of the coordinator shall be provided to the Kern County Planning and Natural Resources Department.<br><br>**MM 3.9-3b: Spill Prevention, Control, and Countermeasure Plan.** Prior to the issuance of grading or building permits for the generation tie-line installation, the developer shall prepare and submit a Spill Prevention, Control, and Countermeasure Plan to the California Environmental Protection Agency, and the Kern County Planning and Natural Resources Department for review. The plan will be for the storage and use of transformer oil, gasoline, or diesel fuel at the generation tie-line sites. The purpose of the plan will be to mitigate the potential effects of a spill of transformer oil, gasoline, or diesel fuel. The plan shall include design features of the generation tie-line installation project that may contain accidental releases of petroleum and transformer oil products from onsite fuel tanks and transformers.<br><br>**MM 3.9-4b: Herbicide Control.** The project proponent shall continuously comply with the following:<br>1. The construction contractor or project personnel shall use herbicides that are approved for use by the Environmental Protection Agency, are appropriate for use in California and for application adjacent to natural vegetation areas (i.e., non-agricultural use). Workers who apply herbicides shall have all appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use.<br>2. Herbicides shall be mixed and applied in conformance with the manufacturer's directions.<br>3. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all hazardous materials to be used. To minimize harm to wildlife, vegetation, and water bodies, herbicides shall not be applied directly to wildlife.<br>4. Products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed, and herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water.<br>5. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated.<br>6. A written record of all herbicide applications on site, including dates and amounts, shall be furnished to the California State Lands Commission on a monthly basis.<br><br>**MM 3.9-7b: Environmental Contamination Avoidance.** If the generation tie line crosses contaminated soils or remedial equipment on the properties that have been land-use restricted by the California Department of Toxic Substances Control, a health and safety plan must be prepared to ensure that any construction workers, nearby residents or other sensitive receptors are protected from any contaminants that may become airborne during soil disturbance. Additionally, the caps installed to contain the contaminated soil cannot be punctured. | |
| **Impact 3.9-2**: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. | Potentially significant | Implement Mitigation Measures MM 3.9-1b through MM 3.9-4b, MM 3.9-7b, and:<br>**MM 3.9-5b: Notify California Department of Conservation, Division of Oil, Gas, and Geothermal Resources**. The project proponent shall comply with the following: | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 1. In the event any abandoned or unrecorded wells are uncovered or damaged during excavation or grading activities, all work shall cease in the vicinity of the well, and the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, shall be contacted for requirements and approval; copies of said approvals shall be submitted to the Kern County Planning and Natural Resources Department.<br>2. The California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, may determine that remedial plugging operations may be required and shall be contacted and brought to the generation tie-line site to make a proper assessment of the suspect materials. | |
| | | **MM 3.9-6b: Asbestos-containing Material.** The project proponent shall comply with the following:<br>1. In the event that suspect asbestos-containing materials are uncovered during project construction, work within the vicinity of the discovery shall immediately halt and a certified asbestos hazardous materials professional shall be contacted and brought to the generation tie-line site to make a proper assessment of the suspect materials.<br>2. All potentially friable asbestos containing materials shall be removed in accordance with Federal, State, and local laws and the National Emissions Standards for Hazardous Air Pollutants guidelines prior to ground disturbance that may disturb such materials.<br>3. All demolition activities shall be undertaken in accordance with California Occupational Safety and Health Administration standards, as contained in Title 8 of the California Code of Regulations, Section 1529, to protect workers from exposure to asbestos. Materials containing more than 1 percent asbestos shall also be subject to Eastern Kern Air Pollution Control District's (EKAPCD) regulations. Demolition shall be performed in conformance with Federal, state, and local laws and regulations so that construction workers and/or the public avoid significant exposure to asbestos-containing materials. | |
| **Impact 3.9-3**: Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. | Potentially significant | Mitigation Measure MM 3.9-7b | Less than significant |
| **Impact 3.9-4**: Exposes people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. | Less than significant | **MM 3.9-8b: Fire Safety Plan.** Prior to the issuance of grading or building permits, the project proponent shall develop and implement a fire safety plan for use during construction, operation, and decommissioning. The project proponent shall submit the plan, along with maps of the project generation tie-line sites and access roads, to the Kern County Fire Department for review and approval. The fire safety plan shall contain notification procedures and emergency fire precautions including, but not limited to the following: | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 1. All internal combustion engines, both stationary and mobile, shall be equipped with spark arresters. Spark arresters will be in good working order.<br>2. Light trucks and cars with factory-installed (type) mufflers will be used only on roads where the roadway is cleared of vegetation. These vehicle types will maintain their factory-installed (type) muffler in good condition.<br>3. Fire rules will be posted on the project bulletin board at the contractor's field office and areas visible to employees.<br>4. Equipment parking areas and small stationary engine sites will be cleared of all extraneous flammable materials.<br>5. Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires to prevent them from growing into more serious threats.<br>6. The project proponent shall make an effort to restrict the use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to periods outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel. | |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.9-1b through MM 3.9-8b | Less than significant |
| **3.10 Infrastructure** | | | |
| **Impact 3.10-1**: The project would exceed wastewater treatment requirements of the applicable regional water quality control board. | Potentially significant | **MM 3.10-1b**: **Coordinate with Utility Service Providers.** Prior to construction of generation tie-lines, the developer shall coordinate with appropriate utility service providers and related agencies to determine the location of utilities and ensure that adequate wastewater treatments exist. The developer will also incorporate into construction specifications the requirement that the contractor develop a plan to reduce service interruptions. The plan shall be approved by Kern County and submitted to appropriate utility providers. Utilities to be addressed in the plan shall include, but may not be limited to: water, recycled water, sewer, gas, electricity, telephone, cable. | Less than significant |
| **Impact 3.10-2**: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. | Potentially significant | None required | Less than significant |
| **Impact 3.10-3**: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. | Less than significant | Mitigation Measure MM 3.10-1b | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **Impact 3.10-4**: The project has sufficient water supplies available to serve the project from existing entitlements and resources, and new or expanded entitlement is not needed. | Less than significant | None required | Less than significant |
| **Impact 3.10-5**: Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs. | Potentially significant | Implement Mitigation Measure MM 3.11-1a, and:<br>**MM 3.10-2b: Recycling Coordinator.** During construction, operation, and decommissioning, debris and waste generated shall be recycled to the extent feasible.<br>1. An onsite Recycling Coordinator shall be designated by the project proponent to facilitate recycling as part of the Maintenance, Trash Abatement and Pest Management Program.<br>2. The Recycling Coordinator shall facilitate recycling of all generation tie-line construction waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes.<br>3. The onsite Recycling Coordinator shall also be responsible for ensuring wastes requiring special disposal are handled according to state and county regulations that are in effect at the time of disposal.<br>4. Contact information of the coordinator shall be provided to the Kern County Planning and Natural Resources Department prior to issuance of building permits. | Less than significant |
| **Impact 3.10-6**: Fail to comply with federal, state, and local statutes and regulations related to solid waste. | Less than significant | None required | Less than significant |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.10-1b, MM 3.10-2b, MM 3.11-1b, and MM 3.16-3b | Less than significant |
| **3.11 Land Use** | | | |
| **Impact 3.11-1**: The project would conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the projects (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. | Less than significant | None required | Less than significant |
| **Cumulative** | Potentially significant | **MM 3.11-1b: Decommission Plan.** Prior to issuance of any gen-tie building permit, the project proponent shall provide the Kern County Planning and Natural Resources Department with a Decommission Plan for review and | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | approval. The plan would be carried out by the proponent or a County-contracted consulting firm(s) at a cost to be borne by the project proponent.<br>1. The Decommission Plan including, but not limited to the following:<br>a. Factor in the cost to remove the gen-tie lines and other support structures, replace any disturbed soil from the removal of support structures (including all underground equipment), and control of fugitive dust on the remaining undeveloped land.<br>b. Salvage value for the support structures shall be included in the financial assurance calculations.<br>c. The assumption, when preparing the estimate, is that the project proponent is incapable of performing the work or has abandoned the gen-tie lines, thereby resulting in the County hiring an independent contractor to perform the decommission work.<br>2. In addition to submittal of a Decommission Plan for the gen-tie lines, the project proponent shall post or establish and maintain with the County financial assurances related to the deconstruction of the gen-tie sites as identified on the approved Decommission Plan should at any point in time the project proponent determine it is not in their best interest to operate the facility. The financial assurance required prior to issuance of any building permit shall be established using one of the following:<br>a. An irrevocable letter of credit.<br>b. A surety bond.<br>c. A trust fund in accordance with the approved financial assurances to guarantee the deconstruction work will be completed in accordance with the approved decommission plan.<br>3. The financial assurances documents shall include the following verbiage, including any required verbiage through Kern County Planning and Natural Resources Department's consultation and review with Kern County Counsel:<br>a. Financial institution or Surety Company shall give the County a minimum of 120 days' notice of intent to terminate the letter of credit or bond.<br>b. Financial assurances shall be reviewed annually by the respective counties or County-contracted consulting firm(s) at a cost to be borne by the project proponent to substantiate those adequate funds exist to ensure deconstruction of all solar panels and support structures identified on the approved Decommission Plan.<br>c. Should the project proponent deconstruct the site on their own, the County will not pursue forfeiture of the financial assurance.<br>d. Financial institution or Surety Company shall be licensed to conduct business in the state of California.<br>4. Once deconstruction has occurred, financial assurance for that portion of the site will no longer be required and any financial assurance posted will be adjusted or returned accordingly. Any funds not utilized through decommission of the site by the County shall be returned to the project proponent.<br>5. Should any portion of the generation tie-line poles not be in operational condition for a consecutive period of 24 months, that portion of the site shall be deemed abandoned and shall be removed within 60 days from the date a written notice is sent to the property owner and solar field owner, as well as the project proponent, by the County. Within this 60-day period, the property owner, solar field owner, or project proponent may provide the County a written request and justification for an extension for an additional 12 months. The Kern County Planning and Natural Resources Director shall consider any such request at a Director's Hearing as provided for in Section 19.102.070 of the Kern County Zoning Ordinance. | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 6. In no case shall a generation tie-line pole which has been deemed abandoned be permitted to remain in place for more than 48 months from the date the solar facility was first deemed abandoned. | |
| **3.12 Noise** | | | |
| **Impact 3.12-1**: Expose persons to or generate noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies. | Potentially significant | **MM 3.12-1b: Noise Reduction.** To reduce temporary generation-tie line construction-related noise impacts, the following shall be implemented by the project proponent:<br>1. In the event a noise-sensitive receptor is constructed within 1,000 feet of the tie-line site:<br>a. Equipment staging shall be located in areas that will create the greatest distance between generation tie-line construction-related noise sources and noise-sensitive receptors nearest the tie-line site during generation tie-line construction to the extent practical.<br>b. The project contractor shall place all stationary tie-line construction equipment so that emitted noise is directed away from sensitive receptors nearest the gen-tie line site.<br>2. The construction contractor shall ensure all generation tie-line construction equipment is equipped with manufacturers approved mufflers and baffles.<br>3. The construction contractor shall establish a noise disturbance coordinator for the project during construction of the generation tie lines. The noise disturbance coordinator shall be responsible for responding to any complaints about construction noise. The noise disturbance coordinator shall determine the cause of the complaint and shall be required to implement reasonable measures to resolve the complaint. Contact information for the noise disturbance coordinator shall be submitted to the Kern County Planning and Natural Resources Department prior to commencement of any ground disturbing activities.<br>4. During all construction or decommissioning phases of the generation tie-lines, the construction contractor shall limit all onsite noise-producing activities to the hours of 6:00 a.m. to 9:00 p.m., Monday through Friday, and to the hours of 8:00 a.m. and 9:00 p.m. on Saturdays and Sunday or as required through the Kern County Noise Ordinance (Municipal Ordinance Code 8.36.020).<br>**MM 3.12-2b: Public Notification.** Prior to commencement of any generation tie line construction activities (i.e., mobilization of construction equipment, initial grading, etc.), the project proponent shall provide written notice to the public through mailing a notice.<br>1. The mailing notice shall be to all residences within 1,000 feet of the gen-tie sites, 15 days or less prior to generation tie-line construction activities. The notices shall include: The construction schedule, telephone number and email address where complaints and questions can be registered with the noise disturbance coordinator.<br>2. A minimum of one sign, legible at a distance of 50 feet, shall be posted at the generation tie line construction site or adjacent to the nearest public access to the main construction entrance throughout construction activities that shall provide the generation tie line construction schedule (updated as needed) and a telephone number where noise complaints can be registered with the noise disturbance coordinator.<br>3. Documentation that the public notice has been sent and the sign has been posted shall be provided to the Kern County Planning and Natural Resources Department. | Less than significant |
| Impact 3.12-2: **Would the project result in the exposure of persons to, or generate, excessive groundborne** | **Less than significant** | None required | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| **vibration or groundborne noise levels.** | | | |
| **Impact 3.12-3**: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. | Potentially significant | Mitigation Measures MM 3.12-1b and MM 3.12-2b | Less than significant |
| **Impact 3.12-4:** For a project located within the Kern County Airport Land Use Compatibility Plan (ALUCP), would the project expose people residing or working in the project area to excessive noise levels. | Less than significant | Mitigation Measures MM 3.12-1b and MM 3.12-2b | Less than significant |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.12-1b and MM 3.12-2b | Less than significant |
| **3.13 Public Services** | | | |
| **Impact 3.13-1**: The project would result in adverse physical impacts associated with the need for new or physically altered governmental facilities—the construction of which could cause significant environmental impacts—in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services or police protection and law enforcement services. | Less than significant | Implement Mitigation Measure MM 3.9-8b, and:<br>**MM 3.13-1b: Funding for County Fire and Sheriff's Protection.** The project proponent shall implement the following mitigation steps at the project site:<br>1. For facility operation, the project proponent shall pay for impacts on countywide public protection, sheriff's patrol and investigative services, and fire services at a rate of $28.84 per 1,000 square feet of panel-covered ground for the facility operation and related onsite structures for the entire covered area of the project. The total amount shall be divided by the number of years of operation and paid on a yearly basis. If completed in phases, the annual amount shall be based on the square footage of ground covered by April 30 of each year. The amount shall be paid to the Kern County Auditor/Controller by April 30 of each calendar year for each and every year of operation. Copies of payments made shall be submitted to the Kern County Planning and Natural Resources Department.<br>2. Written verification of ownership of the project shall be submitted to the Kern County Planning and Natural Resources Department by April 15 of each calendar year. If the project is sold to a city, county, or utility company with assessed taxes that total less than $1,000 per megawatt per year, then they will pay those taxes plus the amount necessary to equal the equivalent of $1,000 per megawatt. The amount shall be paid for all years of operation. The fee shall be paid to the Kern County Auditor/Controller by April 30 of each calendar year.<br>3. The project proponent shall work with the County to determine how the use of sales and use taxes from construction of the project can be maximized. This process shall include, but is not necessarily limited to, the project proponent obtaining a street address within the unincorporated portion of Kern County for acquisition, purchasing and billing purposes, and registering this address with the State Board of Equalization. The project proponent shall allow the County to use this sales tax information publicly for reporting purposes. | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 4. Prior to the issuance of any building permits on the property, the project proponent shall submit a letter detailing the hiring efforts prior to commencement of construction; which encourages all contractors of the project site to hire at least 50 percent of their workers from the local Kern County communities. The project proponent shall provide the contractors a list of training programs that provide skilled workers and shall require the contractor to advertise locally for available jobs, notifying the training programs of job availability, all in conjunction with normal hiring practices of the contractor. | |
| **Cumulative** | Less than significant | Mitigation Measures MM 3.13-1b and MM 3.9-8b | Less than significant |
| **3.14 Socioeconomics and Environmental Justice** | | | |
| **Cumulative** | Less than significant | No mitigation measures are recommended to address socioeconomic impacts related to the Alternative A, Alternative B, or Alternative C. | Less than significant |
| **3.15 Transportation** | | | |
| **Impact 3.15-1**: The project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. | Less than significant | **MM 3.15-2b: Traffic Control Plan.** Prior to the issuance of construction or building permits, the project proponent shall:<br>1. Prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department-Development Review and the California Department of Transportation offices for District 9, as appropriate, for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and must include, but not be limited to, the following issues:<br>a. Timing of deliveries of heavy equipment and building materials.<br>b. Directing construction traffic with a flag person.<br>c. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic.<br>d. Ensuring access for emergency vehicles to the tie-line sites.<br>e. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections.<br>f. Maintaining access to adjacent property.<br>g. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the a.m. and p.m. peak hour, distributing construction traffic flow across alternative routes to access the gen-tie sites, and avoiding residential neighborhoods to the maximum extent feasible.<br>2. Obtain all necessary encroachment permits for the work within the road right-of-way or use of oversized/overweight vehicles that will utilize county maintained roads, which may require California Highway Patrol or a pilot car escort. Copies of the approved traffic plan and issued permits shall be submitted to the Kern County Planning and Natural Resources Department and the Kern County Public Works Department-Development Review.<br>3. Prior to construction, the project proponent shall submit engineering drawings of proposed access road design for the review and approval of the Kern County Public Works Department. | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | 4. Enter into a secured agreement with Kern County to ensure that any County roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the state and/or Kern County.<br>5. Submit documentation that identifies the roads to be used during construction. The project proponent shall be responsible for repairing any damage to non-county maintained roads that may result from construction activities. The project proponent shall submit a preconstruction video log and inspection report regarding roadway conditions for roads used during construction to the Kern County Public Work Department-Development Review and the Kern County Planning and Natural Resources Department.<br>6. Within 30 days of completion of construction, the project proponent shall submit a post-construction video log and inspection report to the County. This information shall be submitted in DVD format. The County, in consultation with the project proponent's engineer, shall determine the extent of remediation required, if any. | |
| **Impact 3.15-2**: The project would conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards developed by the County congestion management agency for designated roads or highways. | Less than significant | Implement Mitigation Measure MM 3.15-2b and:<br>**MM 3.15-1b: Remove Easement Obstructions.** All easements shall be kept open, clear, and free from buildings and structures of any kind pursuant to Chapters 18.50 and 18.55 of the Kern County Land Division Ordinance. All obstructions, including utility poles and lines, tees, pole signs, or similar obstructions, shall be removed from the ultimate road rights-of way in accordance with Section 18.55.030 of the Land Division Ordinance. Compliance with this requirement is the responsibility of the applicant/project proponent and may result in significant financial expenditures. | Less than significant |
| **Impact 3.15-3**: The project would substantially increase hazards due to a design feature (such as sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). | Potentially significant | Mitigation Measure MM 3.15-1b | Less than significant |
| **Impact 3.15-4**: The project would result in inadequate emergency access. | Less than significant | Mitigation Measure MM 3.15-1b | Less than significant |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.15-1b and MM 3.15-2b | Less than significant |
| **3.16 Water Resources** | | | |
| **Impact 3.16-1**: The project could violate water quality standards or waste discharge requirements. | Potentially significant | Implement Mitigation Measure MM 3.9-1b, and:<br>**MM 3.16-1b: Stormwater Pollution Prevention Plan.** Prior to issuance of a grading permit for construction or decommissioning for the generation tie-line installation, the developer shall submit a Stormwater Pollution Prevention Plan to the Kern County Engineering, Surveying, and Permit Services Department that specifies best management practices to prevent all construction pollutants from contacting stormwater, with the intent of keeping sediment and other pollutants from moving offsite and into receiving waters. The requirements of the | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | Stormwater Pollution Prevention Plan shall be incorporated into design specifications and construction contracts. Best management practices categories employed onsite would include erosion control, sediment control, good housekeeping, and post-construction. Best management practices for the generation tie-line construction phase shall include, but not be limited to, those listed below.<br>1. Erosion Control<br>a. Use of existing roadways to the maximum extent possible<br>b. Limiting grading to the minimum area necessary for construction, operation and decommissioning of the project<br>c. Encourage maintenance of existing topography and limit vegetation disturbance/removal such as through mowing to the maximum extent possible<br>2. Sediment Control<br>a. Implementing fiber rolls and sand bags around drainage areas and the site perimeter<br>b. Stockpiling and disposing of demolition debris, concrete, and soil properly<br>c. Installation of a stabilized construction entrance/exit and stabilization of disturbed areas<br>3. 3. Good Housekeeping<br>a. Implement proper protections for fueling and maintenance of equipment and vehicles<br>b. Manage waste and aggressively control litter<br>4. 4. Post Construction<br>a. Stabilize soil in disturbed areas either by revegetation or chemical stabilizer<br>b. Implement any necessary drainage mitigation<br>c. Revegetate any disturbed areas<br>**MM 3.16-2b: Federal Emergency Management Agency Flood Zone Mapping and Strategic Construction Siting and Facility Placement.** Prior to the preparation of Final Flood Hazard Assessment and Grading Plan the developer would consult with the Federal Emergency Management Agency for flood zone mapping services of the estimated area of impact on generation tie line routes that are currently unmapped. Once flood risks are determined by the Federal Emergency Management Agency, these official flood zone boundaries would be incorporated into the final version of all technical hydrology and flood-related documents prepared for the project so that appropriate design recommendations for the projects can be made. Based on specific flood zone information, construction staging areas and final project structures would be sited to avoid existing hydrologic features (including flood zones and drainages) to the maximum extent possible.<br>**MM 3.16-3b**: **Final Flood Hazard Assessment.** Prior to construction, a Final Flood Hazard Assessment shall be prepared for the project. The Final Flood Hazard Assessment shall describe the existing flood risks onsite and how the project structures would be designed to incorporate the requirements of the Kern County Floodplain Management Ordinance. The existing flood risks on the generation tie line routes shall be determined through developer coordination with the Federal Emergency Management Agency. For any generation tie line routes installed within flood zones, final design of the solar arrays shall include 1 foot of freeboard clearance above the calculated maximum flood depths. Generation tie line routes shall be graded to direct potential flood waters into channels adjacent to the existing and proposed right of ways without increasing the water surface elevations more than 1 foot or as otherwise required by Kern County's Floodplain Management Ordinance. The Final Flood | |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
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| | | Hazard Assessment shall be approved by the Floodplain Management Section of the Kern County Engineering, Surveying, and Permit Services Department prior to the issuance of a grading permit for the project.<br><br>**MM 3.16-4b: Grading Plan.** Prior to commencement of generation tie-line construction or decommissioning activities, the developer shall prepare a Grading Plan per the Kern County Grading Code and Kern County Grading Guidelines. The Grading Plan shall include the location of all existing drainages onsite, project grading details and the drainage devices and erosion control features that would be installed along the generation tie line routes to minimize excess site runoff, erosion and sedimentation. Examples of features installed onsite that would minimize runoff, erosion and sedimentation include energy dissipaters and water quality inlets. The plan shall also disclose flood protection measures implemented for structures onsite as identified in the Flood Hazard Assessment. Flood zone information used in the preparation of the Grading Plan would be based on flood zone maps obtained from developer consultation with FEMA. The Grading Plan shall be approved by County prior to issuance of a grading permit. | |
| **Impact 3.16-2**: The project could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. | Potentially significant | None required | Less than significant |
| **Impact 3.16-3**: The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation and/or flooding onsite or off site. | Potentially significant | Mitigation Measures MM 3.16-1b through MM 3.16-4b | Less than significant |
| **Impact 3.16-4**: The project could create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. | Potentially significant | Mitigation Measures MM 3.16-1b, MM 3.16-4b, and:<br><br>**MM 3.16-5b: Hydrologic Analysis and Drainage Plan.** Prior to the issuance of a grading permits for the generation tie-lines, the project proponent shall complete a hydrologic study and drainage plan designed to evaluate and minimize potential increases in runoff from the generation tie line routes. The study shall include, but is not limited to the following:<br>1. Numerical stormwater model for the generation tie-line site, and would evaluate existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event.<br>2. The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation.<br>3. The drainage plan would include engineering recommendations to be incorporated into the project and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the installation of generation tie lines, as well as implementation of | Less than significant |

| Impact | Level of Significance before Mitigation | Mitigation Measures | Level of Significance after Mitigation |
|---|---|---|---|
| | | design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite.<br>4. The hydrologic study and drainage plan shall be prepared in accordance with the Kern County Grading Code and Kern County Development Standards, and approved by the Kern County Public Works Department prior to the issuance of grading permits for the generation tie-line installation. | |
| **Impact 3.16-5**: The project could otherwise substantially degrade water quality. | Potentially significant | Mitigation Measures MM 3.16-1b through MM 3.16-4b | Less than significant |
| **Impact 3.16-6**: The project could place within a 100-year flood hazard area structures that would impede or redirect flood flows. | Potentially significant | Mitigation Measures MM 3.16-2b through MM 3.16-4b | Less than significant |
| **Cumulative** | Potentially significant | Mitigation Measures MM 3.9-1b, and MM 3.16-1b through MM 3.16-4b | Less than significant |
| **5 Consequences of Project Implementation** | | | |
| **Impact 5-1:** The project could result in an inefficient, wasteful, and/or unnecessary use of energy for transportation of materials and worker commutes. | Potentially Significant | **MM 5-1b**: The developer shall develop and implement a construction- and decommissioning-phase Transportation Energy Management Plan in consultation with Kern County and Edwards AFB to reduce construction- and decommissioning-related transportation energy consumption. The plan shall include but not be limited to the following measures:<br>1. Require that onsite equipment and vehicle operators minimize equipment and vehicle idling time either by shutting equipment off when not in use or by limiting idling time to a maximum of 5 minutes.<br>2. Designate a Transportation Energy Manager (TEM) to coordinate ridesharing by construction and decommissioning employees. The TEM shall encourage carpooling by posting commuter ride sign-up sheets, maintaining and posting an employee home zip code map.<br>3. Provide priority parking onsite for vehicles with two or more passengers.<br>4. When feasible, arrange for a single construction vendor who makes deliveries for several items.<br>5. Plan construction delivery and waste hauling routes to eliminate unnecessary trips.<br>6. The plan shall be submitted to Kern County and to Edwards AFB for review and approval prior to the start of construction. | Less than significant |

1