# Final
# Environmental Impact Report

**SCH# 2021040761**

## Volume 4

**Chapter 7 – Response to Comments**

**SANDRINI SOLAR PROJECT**
**by EDPR CA Solar Park, LLC**
***(PP20402)***

Conditional Use Permit No. 9, Map No. 159;
Conditional Use Permit No. 27, Map No. 160;
Conditional Use Permit No. 28, Map No. 160;
Conditional Use Permit No. 29, Map No. 160;
Conditional Use Permit No. 27, Map No. 161;
General Plan Amendment No. 2, Map No. 159 (Circulation);
General Plan Amendment No. 3, Map No. 160 (Circulation);
General Plan Amendment No. 4, Map No. 161 (Circulation);
Williamson Act Land Use Contract Cancellations

Kern County
Planning and Natural Resources Department
Bakersfield, California

November 2021

**Lorelei H. Oviatt, AICP, Director**
2700 "M" Street, Suite 100
Bakersfield, CA 93301-2323
Phone: (661) 862-8600
Fax: (661) 862-8601 TTY Relay 1-800-735-2929
Email: planning@kerncounty.com
Web Address: http://kernplanning.com/

**PLANNING AND NATURAL RESOURCES DEPARTMENT**

Planning
Community Development
Administrative Operations

November 24, 2021

**File:** CUP #9, Map #159 and various others
S.D. #2 – Scrivner and S.D #4 – Couch

ADDRESSEE LIST (See Distribution List)

**RE: Response to Comments for Draft Environmental Impact Report – Sandrini Solar Project by EDPR CA Solar Park (EDP Renewables, LLC) (SCH #2021040761)**

Dear Interested Party:

Enclosed is a document entitled *Volume 4 - Chapter 7 - Response to Comments*, for the above-referenced project. Section 15088 of the California Environmental Quality Act Guidelines requires the Lead Agency to evaluate comments on environmental issues received from persons who reviewed the Draft EIR and prepare a written response addressing each comment. This document is Chapter 7 of the Final EIR.

A public hearing has been scheduled with the Kern County Planning Commission to consider this request on **December 9, 2021** at 7:00 p.m., or soon thereafter, at the Chambers of the Board of Supervisors, First Floor, Kern County Administrative Center, 1115 Truxtun Avenue, Bakersfield, California.

Thank you for your participation in the environmental process for this project. If you have any questions regarding this letter, please contact me at (661) 862-5041 or TolentinoM@kerncounty.com.

Sincerely,

Mark Tolentino, Planner II
Advanced Planning Division

COMMENTING AGENCIES AND INTERESTED PERSONS: California Department of Fish & Wildlife – Julie A. Vance; Department of Conservation – Division of Land Resource Protection – Monique Wilber; Kern County Public Health Services Department – Environmental Health Division -Dayana Torres; Kern County Fire Department - Office of the Assistant Fire Marshall, Michael Nicholas; Kern County Public Works Department - Floodplain Management Section, Brian Blase; Kern County Public Works Department – County Surveyor – Brian Blacklock

Sandrini Solar RTC Mailing List

Kern County Public Works Department/
Building & Development/Floodplain

Kern County Public Works Department/
Building & Development/Survey

State Dept of Conservation
Attn: Monique Wilber
Office of Land Conservation
801 "K" Street, MS 18-01
Sacramento, CA 95814

Kern County
Env Health Services Department

Kern County Fire Dept
Michael Nicholas,
Assistant Fire Marshal

California Fish & Wildlife
Attn: Julie A. Vance
1234 East Shaw Avenue
Fresno, CA 93710

# Chapter 7
# Response to Comments

**SCH# 2021040761**

## Volume 4

**SANDRINI SOLAR PROJECT**
**by EDPR CA Solar Park, LLC**
***(PP20402)***

Conditional Use Permit No. 9, Map No. 159;
Conditional Use Permit No. 27, Map No. 160;
Conditional Use Permit No. 28, Map No. 160;
Conditional Use Permit No. 29, Map No. 160;
Conditional Use Permit No. 27, Map No. 161;
General Plan Amendment No. 2, Map No. 159 (Circulation);
General Plan Amendment No. 3, Map No. 160 (Circulation);
General Plan Amendment No. 4, Map No. 161 (Circulation);
Williamson Act Land Use Contract Cancellations

Kern County
Planning and Natural Resources Department
Bakersfield, California

Technical Assistance by:
Dudek

November 2021

# TABLE OF CONTENTS

Page

Chapter 7
# Response to Comments

## 7.1 Introduction

### Purpose

As defined by Section 15050 of the *California Environmental Quality Act (CEQA) Guidelines*, the Kern County Planning and Natural Resources Department is serving as "Lead Agency" for the preparation of the Environmental Impact Report (EIR) for the Sandrini Solar Project (project or proposed project). The Final EIR presents the environmental information and analyses that have been prepared for the project, including comments received addressing the adequacy of the Draft EIR, and responses to those comments. In addition to the responses to comments, clarifications, corrections, or minor revisions have been made to the Draft EIR. The Final EIR which includes the responses to comments, the Draft EIR, and the Mitigation, Monitoring, and Reporting Program, will be used by the Planning Commission and the Board of Supervisors in the decision-making process for the proposed project.

### Environmental Review Process

A Notice of Preparation (NOP)/Initial Study (IS) (SCH No. 2021040761) was circulated for a 30-day public review period beginning on April 30, 2021 and ending June 1, 2021. Twelve individual written comment letters were received and used in the preparation of the Draft EIR. The Draft EIR for the proposed project was circulated for a 45-day public review period beginning on September 17, 2021 and ending November 1, 2021. A total of six comment letters were received on the Draft EIR.

Section 15088 of the *CEQA Guidelines* requires that the lead agency evaluate comments on environmental issues received from persons and agencies that reviewed the Draft EIR and prepare a written response addressing the comments received. The response to comments is contained in this document — Volume 4, Chapter 7 of the Draft EIR. Volumes 1, 2, 3, and 4 together constitute the Final EIR.

## 7.2 Revisions to the Draft EIR

The revisions that follow were made to the text of the Draft EIR. Amended text is identified by page number. Additions to the Draft EIR text are shown with <u>underline</u> and text removed from the Draft EIR is shown with ~~strikethrough~~. The revisions, as outlined below, fall within the scope of the original project analysis included in the Draft EIR and do not result in an increase to any identified impacts or produce any new impacts. No new significant environmental impact would result from the changes or from a new mitigation measure proposed to be implemented. Therefore, no significant revisions have been made which would require recirculation of the Draft EIR pursuant to *CEQA Guidelines* Section 15088.5 (Recirculation of an EIR Prior to Certification).

## Chapter 1, Executive Summary; Section 1.1, Introduction, Page 1-1:

This EIR has been prepared by Kern County (County), the acting Lead Agency, to identify and evaluate potential environmental impacts associated with the construction and operation of the project which would include a 300-megawatt (MW) alternating current (AC) solar photovoltaic facility and necessary associated infrastructure, including up to 100 MW of energy storage and operations and maintenance (O&M) facilities. The project as proposed by EDPR CA Solar Park LLC [EDPR Renewables] (project proponent) would be located on 33 parcels across approximately 3,469.87 acres of privately owned land currently under agricultural use in the Valley Region of Kern County. Roughly 2,472.89 acres of the project site would be used to host the full proposed solar project capacity, while the approximately ~~1,002.18~~ 996.98 acres remaining would be retained as a conservation area (developer protected areas) and would not be developed. The project would be supported by both a 70 kilovolt (kV) and a 230 kV overhead and/or underground electrical transmission lines originating from two on-site collector substations and terminating at its interconnection point with Pacific Gas and Electric's (PG&E) existing Wheeler Ridge Substation. The Wheeler Ridge Substation is located approximately 6 miles southeast of the central portion of the project site. Both transmission lines would convey electricity back and forth between various phases of the Sandrini Solar project and the larger electrical grid. The project's permanent facilities would include service roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, project substations, energy storage system(s), and operations and maintenance facilities.

## Chapter 1, Executive Summary; Table 1-1, Page 1-10:

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

| Impact | Mitigation Measures |
|---|---|
| ~~Aesthetics (Project)~~ | ~~MM 4.1-. 5 through MM 4.1-7~~ |
| ~~Agriculture and Forestry Resources (Project)~~ | ~~No mitigation required~~ |
| ~~Air Quality (Project& Cumulative)~~ | ~~No mitigation required~~ |
| ~~Biological Resources (Project)~~ | ~~MM 4.4-1 through MM 4.4-22~~ |
| Cultural Resources (Project and Cumulative) | MM 4.5-1 through MM 4.5-4 |
| Energy (Project and Cumulative) | MM 4.3-5 and MM 4.3-7 |
| Geology and Soils (Project and Cumulative) | MM 4.7-1 through MM 4.7-8 |
| Greenhouse Gas Emissions (Project and Cumulative) | No mitigation required |
| Hazards and Hazardous Materials (Project and Cumulative) | MM 4.9-1 through MM 4.9-4, and MM 4.14-1 |
| Hydrology and Water Quality (Project and Cumulative) | MM 4.7-4, MM 4.9-1, MM 4.9-2 and MM 4.10-1 |
| Land Use and Planning (Project and Cumulative) | MM 4.11-1 |
| Mineral Resources (Project and Cumulative) | MM 4.12-1 |
| Noise (Project and Cumulative) | MM 4.13-1 through MM 4.13-4 |
| Public Services (Project and Cumulative) | MM 4.14-1, through MM 4.14-5 |
| Transportation (Project and Cumulative) | MM 4.15-1 |
| Tribal Cultural Resources (Project and Cumulative) | MM 4.5-1 through MM 4.5-4 |
| Utilities and Service Systems (Project and Cumulative) | MM 4.7-4, MM 4.9-1, MM 4.10-1, and MM 4.10-3 ~~and MM 4.9-1~~ |
| Wildfire (Project ~~and Cumulative~~) | MM 4.7-3, MM 4.7-4, and MM 4.14-1 |

## Chapter 1, Executive Summary; Table 1-2, Page 1-10:

**TABLE 1-2: SUMMARY OF SIGNIFICANT AND UNAVOIDABLE PROJECT-LEVEL AND CUMULATIVE IMPACTS OF THE SOLAR FACILITY**

| Resources | Project Impacts | Cumulative Impacts |
|---|---|---|
| Aesthetics | Implementation of the project would result in potentially significant visual impacts to the existing visual quality or character of the site and surrounding area. Mitigation Measures MM 4.1-1 through MM 4.1-4 would be incorporated to reduce visual impacts that would limit vegetation removal, provide screening fencing that would reduce the visibility of perimeter project features, provide color treatment of structure, and ensure the site is kept free of debris. However, because there are no feasible mitigation measures that can be implemented to maintain the existing open valley landscape character of the project site, impacts to visual resources would remain significant and unavoidable. | Although limited in the surrounding area, when combined with existing and/or proposed solar facilities, the project would increase the footprint of solar development such that cumulative impacts to views and visual quality would occur. View impacts associated with these existing and proposed development would persist throughout the operational lifespan of projects. The project would result in significant and unavoidable impacts related to views, visual quality and visual character despite the implementation of Mitigation Measures MM 4.1-1 through MM 4.1-7. Although implementation of mitigation measures would reduce visual impact severity, there are no feasible mitigation measures that would maintain the visual character of the area. The conversion of approximately ~~2,475~~ 2,472.89 acres of privately owned land to a solar energy production facility is considered a significant and unavoidable cumulative impact. |
| Air Quality | Implementation of the project would result in significant and unavoidable project-level impacts, exposing sensitive receptors to substantial pollutant concentrations. Even with implementation of Mitigation Measures MM 4.3-1 through MM 4.3-9 and MM 4.3-10 through MM 4.3-12, uncertainty of the project's regional and localized health impacts associated with criteria air pollutants along with indirect linkages of criteria pollutants and COVID-19, on vulnerable populations would result in significant and unavoidable project-level impacts. | Cumulative air quality impacts would be significant and unavoidable during temporary construction and decommissioning of the project after implementation of Mitigation Measures MM 4.3-1 through MM 4.3-11. The uncertainty of the project's regional and localized health impacts associated with criteria air pollutants, along with indirect linkages of criteria pollutants and COVID-19, on vulnerable populations would result in significant and unavoidable cumulative level impacts. |

## Chapter 1, Executive Summary; Table 1-5, Page 1-24 – 1-92:

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| **4.1 Aesthetics** | | | |
| **Impact 4.1:** Cumulative Impacts | Potentially significant | Implementation of **MM 4.1-1** through **MM 4.1-7** would be required. | Significant and unavoidable |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| **Agriculture and Forestry Resources** | | | |
| **Impact 4.2:** Cumulative Impacts | Potentially significant | Implementation of ~~Mitigation Measure~~ MM **4.2-1** would be required. | Significant and unavoidable |
| **Air Quality** | | | |
| **Impact 4.3-1:** The project would conflict with or obstruct implementation of the applicable air quality plan | Less than significant. However, MM 4.3-1 through MM 4.3-9 are included to further | **MM 4.3-7:** The project proponent shall continuously comply with the following measures during operation of the project to control emissions from the on-site dedicated equipment (equipment that would remain on-site each day):<br>a. All onsite off-road equipment and on-road vehicles for operation/maintenance shall be new equipment that meets the recent ~~the~~ California Air Resources Board engine emission standards or alternatively fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, as appropriate.<br>b. All equipment shall be turned off when not in use. Engine idling of all equipment shall be minimized.<br>c. All equipment engines shall be maintained in good operating condition and in tune per manufacturers' specification. | Less than significant |
| **Impact 4.3-3:** The project would expose sensitive receptors to substantial pollutant concentrations | Potentially significant | Implementation of **MM 4.3-1** through **MM 4.3-9** would be required.<br>**MM 4.3-10:** To minimize personnel and public exposure to potential Valley Fever–containing dust on and off site, the following control measures shall be implemented during project construction:<br>a. Equipment, vehicles, and other items shall be thoroughly cleaned of dust before they are moved off site to other work locations.<br>b. Wherever possible, grading and trenching work shall be phased so that earth-moving equipment is working well ahead or downwind of workers on the ground.<br>c. The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area.<br>d. In the event that a water truck runs out of water before dust is sufficiently dampened, ground workers being exposed to dust shall leave the area until a truck can resume water spraying. | Significant and unavoidable |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | e. To the greatest extent feasible, heavy-duty earth-moving vehicles shall be closed-cab and equipped with a HEP-filtered air system.<br>f. Workers shall receive training in procedures to minimize activities that may result in the release of airborne Coccidioides immitis spores, to recognize the symptoms of Valley Fever, and shall be instructed to promptly report suspected symptoms of work-related Valley Fever to a supervisor. Evidence of training shall be provided to the Kern County Planning and Natural Resources Department within 5 days of the training session.<br>g. A Valley Fever informational handout shall be provided to all onsite construction personnel. The handout shall, at a minimum, provide information regarding the symptoms, health effects, preventative measures, and treatment. Additional information and handouts can be obtained by contacting the Kern County Public Health Services Department.<br>h. Onsite personnel shall be trained on the proper use of personal protective equipment, including respiratory equipment. National Institute for Occupational Safety and Health–approved respirators shall be provided to onsite personal, upon request. When exposure to dust is unavoidable, provide appropriate national Institute for Occupational Safety and Health-approved respiratory protection to affected workers. If respiratory protection is deemed necessary, employers must develop and implement a respiratory protection program in accordance with Cal/Occupational Safety and Health Administrations 's Respiratory Protection standard (8 CCR 5144). | |
| **Impact 4.3:** Cumulative Impacts | Potentially significant | Implementation of **MM 4.3-1** through **MM 4.3-12** would be required. | Significant and unavoidable |
| **Biological Resources** | | | |
| **Impact 4.4-1a:** The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, | Potentially significant | **MM 4.4-1:** If ~~special-status~~ listed plant species are found during floristic surveys or have been previously identified, then Ecologically Sensitive Area (ESA) fencing should be established at a 50-foot radius around these individuals to ensure that they are not destroyed during project construction activities. ~~Pursuant to Section 1913(c) of the California Fish and Game Code,~~ If project activities | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. | | cannot avoid direct impacts to ~~special-status~~ non-listed plants with a California Rare Plant Rank, California Department of Fish and Wildlife shall be notified and provided the opportunity to salvage any of these plants that would be affected. The California Department of Fish and Wildlife may enter into agreement with the project proponent to retain a qualified entity for the relocation of sensitive plants to an approved location. Any salvage would be undertaken in accordance with a salvage plan to be developed in consultation with California Department of Fish and Wildlife. The plan would include methods for transplanting and watering (if appropriate), success criteria for salvaged plants, monitoring the health and survivorship of salvaged plants during at least 5 years following salvage, and contingency measures if plant survivorship requirements are not satisfied. If listed plant species are identified in the Project area, CDFW would be conferred with to determine if the Project can avoid take of listed species. In the event take cannot be avoided, the project proponent shall confer with CDFW on the need for an incidental take permit.<br><br>**MM 4.4-2:** Invasive species have the potential to out-compete native special-status plant species. Consequently, the introduction and spread of invasive and non-native plant species should be avoided and controlled wherever possible during construction and operations within the project footprint. This may be achieved through the following measures:<br>a. Clean vehicles and equipment before they enter construction areas.<br>b. Apply chemical deterrents or implementing appropriate revegetation actions to disturbed areas to prevent growth of invasive species.<br>c. Implement an annual weed and invasive species control program within the project footprint and areas temporarily impacted during construction.<br><br>**MM 4.4-3:** To reduce any indirect impacts to special-status plants that may be in the project | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | footprint, best management practices ~~(BMPs)~~will be implemented to control dust pollution, prevent discharge of potentially harmful chemicals, and prevent changes in hydrology. ~~(BMPs)~~Best Management Practices may include the installation of erosion and sedimentation control devices, applying water to control dust, placing drip pans under equipment when not in use, refueling in designated areas, and containing concrete washout properly, among other practices.<br><br>**MM 4.4-4: Protocol-level Surveys and/or Avoidance of Blunt-nosed Leopard Lizard.** The area of Valley Sink Scrub habitat located in Zone Map #160 contains suitable habitat, including burrows, for Blunt-Nosed Leopard Lizard ~~BNLL~~. If project activities in this area cannot be avoided (i.e., solar arrays or power pole locations) and if small mammal burrows cannot be avoided by ground-disturbing activities (e.g. excavation or grading) with a 50-foot buffer per MM 4.4-5, qualified biologists shall conduct protocol-level surveys for blunt-nosed leopard lizard at disturbance locations within the 50-foot burrow buffer according to the *Approved Blunt-nosed Leopard Lizard Survey Methodology*, as revised as of October 2019 (Appendix D1), or using another survey protocol approved by United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~. Project activity outside the specified 50-foot buffer may proceed while surveys are conducted. ~~Overland t~~Travel ~~not requiring ground disturbance~~ utilizing pre-existing access roads may be permitted within the 50-foot buffer under the direct supervision of a qualified biologist. If no blunt-nosed leopard lizard is observed during the survey no further action is required. If blunt-nosed leopard lizards are observed during the survey or incidentally during construction, then the measures below should be implemented:<br>a. Mitigation Measure MM 4.4-5 should be implemented to avoid all blunt-nosed leopard lizards that might be present in underground burrows. This would only be required in areas where blunt-nosed leopard lizards were determined to be present.<br>b. All construction activities occurring during the active Blunt-Nosed Leopard Lizard | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | ~~BNLL~~ season in areas where Blunt-Nosed Leopard Lizard ~~BNLL~~ were determined to be present shall require that on-site biological monitors be present at each site where activities are occurring within these areas. ~~If a BNLL is present within 50-feet of the construction activities, the monitor shall halt all activities until the BNLL leaves the 50-feet area on its own accord.~~ If a biological monitor or any other Project staff identify blunt-nosed leopard lizard within 1,500 feet of construction activity, construction within that buffer will pause until a monitor is positioned to directly observe the individual. Construction would continue unless the monitor determines that the individual is approaching an active construction area. In no event would active ground disturbance occur within 400 feet of an observed BNLL. CDFW would be notified if a biological monitor or construction staff observes a BNLL on or adjacent to the Project site.<br>c. Consultation with the California Department of Fish and Wildlife ~~(CDFW)~~ and United States Fish and Wildlife Service ~~(USFWS)~~ will occur and an incidental take permit will be sought from ~~USFWS~~ United States Fish and Wildlife Service if take of Blunt-Nosed Leopard Lizard ~~BNLL~~ habitat (as defined by the federal Endangered Species Act) cannot be avoided. An incidental take permit would ensure that any impacted habitat is offset with mitigation habitat at a ratio to be determined in consultation with United States Fish and Wildlife Service ~~USFWS~~. Consultation with California Department of Fish and Wildlife ~~CDFW~~ will ensure that no direct take of individual Blunt-Nosed Leopard Lizard ~~BNLL~~ occurs given the protection afforded to this species as a Fully Protected Species under Fish and Game Code 5050.<br><br>**MM 4.4-5: Avoidance of Small Mammal Burrows.** Tipton kangaroo rat, Tulare grasshopper mouse, blunt-nosed leopard lizard, and San Joaquin antelope squirrel depend on small mammal burrows for critical life functions. The Valley Sink Scrub | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | habitat located in Zone Map #160 contains small mammal burrows. Any construction of solar panel fields within the project footprint, and temporary access roads and tower locations for the gen-tie routes in non-cultivated habitat types will be sited to avoid small mammal and other fossorial burrows. A pre-construction survey to search the proposed gen-tie project alignment for listed species and suitable burrows will be conducted in suitable habitat prior to ground-disturbing activities associated with project activities. Surveys for burrow locations that will inform the location of temporary access roads and gen-tie towers may be conducted earlier in the project design cycle, but the final survey for burrows will occur no more than 30 days before the beginning of the gen-tie line construction to ensure an up-to-date understanding of burrowing locations prior to actual siting. Existing survey information on the location of burrows and a 50-foot buffer around the existing burrows will be used to avoid burrows when planning the placement of solar panel stations, access routes and placement of gen-tie tower facilities.<br><br>If small mammal burrows cannot be avoided by ground disturbing activity (e.g. excavation or grading) and/or overland travel outside pre-existing access roads with a 50 –foot buffer, then verification trapping or other method as developed in consultation with ~~CDFW and USFWS~~ California Department of Fish and Wildlife and United States Fish and Wildlife Service will be conducted in those areas of the buffer that cannot be avoided. If it is determined that the Tipton kangaroo rat or San Joaquin antelope squirrel is absent, then no further measures are warranted. If present, the following measures should be implemented:<br>a. The loss of occupied habitat should be compensated at a an agreed upon ratio with the appropriate agencies but no less than a 1:1 ratio to ensure no net loss of habitat.<br>b. Consultations with the ~~USFWS and CDFW~~ United States Fish and Wildlife Service and California Department of Fish and Wildlife will occur and Incidental Take Permits acquired if take of listed species cannot be avoided.<br>c. If it is determined that the Tulare grasshopper mouse is present, a biological | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | monitor should be on site to relocate any animals that might not leave the work site on their own volition.<br><br>**MM 4.4-6: Avoidance of Burrows for Burrowing Owl, American Badger, and ~~SJKF~~ San Joaquin Kit Fox.** Within 14 days prior to the start of project ground-disturbing activities, a pre-activity survey within a 500-foot buffer where land access is permitted ~~should~~ shall be conducted by a qualified biologist knowledgeable in the identification of these species and approved by the California Department of Fish and Wildlife ~~CDFW~~. Surveys need not be conducted for all areas at one time; they may be phased so that surveys occur within 14 days of the portion of the project site that will be disturbed. If dens/burrows that could support any of these species are discovered during the pre-activity surveys conducted under MM 4.4-15, the avoidance buffers outlined below ~~should~~ shall be established. No work would occur within these buffers unless the biologist approves and monitors the activity as outlined further below.<br><br>Burrowing Owl (active burrows)<br><br>a. Non-breeding season: September 1 – January 31 – 160 feet<br>b. Breeding season: February 1 – August 31 – 250 feet<br><br>If burrowing owl are found within these recommended buffers and avoidance is not possible, burrow exclusion would be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. Replacement of occupied burrows with artificial burrows shall occur at a ratio of one burrow collapsed to one artificial burrow constructed (1:1) to mitigate for evicting burrowing and the loss of burrows. Burrowing owl may attempt to colonize or re-colonize an area that will be impacted; thus, ongoing surveillance shall occur at excluded burrows at a rate that is sufficient to detect burrowing owl if they return.<br><br>American Badger/~~SJKF~~ San Joaquin Kit Fox<br><br>a. Potential or Atypical den – 50 feet<br>b. Known den – 100 feet | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | c. Natal or pupping den – 500 feet, unless otherwise specified by ~~CDFW~~ California Department of Fish and Wildlife.<br>In determining whether activity could occur within these buffers, the biological monitor would take into account the following:<br>a. Noise level and duration. The noise level and duration of activities would be considered. Loud (e.g. greater than 80 decibels) and sustained (e.g. longer than one hour) activities would be disallowed within the buffer setbacks. Activities with shorter durations and/or lower noise levels may be considered with continual observation of the den by the monitor and work stoppage if the biologist detects evidence of disturbance.<br>b. Level of disturbance typically experienced in the location of the den prior to construction. Some areas of the Project (e.g. existing roads or agricultural areas) have been historically subject to human disturbance and dens near these areas are assumed to be accustomed to those previous levels of disturbance. If construction noise and duration are similar to disturbances that would have occurred in the area prior to construction (e.g. vehicular traffic on an existing road), those activities could continue with ongoing monitoring of the den by a biological monitor.<br>c. If construction activities have begun within 100 feet of a potential or atypical den that was determined during pre-construction activities to be inactive when construction began and the den becomes active during construction (i.e. becomes a "known" den), those activities would be allowed to continue at the same intensity as occurred when the den became active. A biological monitor would maintain continual watch on the den while construction activities are conducted within the buffer described above.<br>In no case would construction activities, regardless of noise and duration, occur closer than 50 feet from a known or potential/atypical den or 500 feet from a natal/pupping den unless approved by California Department of Fish and Wildlife or United States Fish and Wildlife Service. Any evidence that the | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | construction activities were causing negative changes in behavior patterns would cause the biologist to disallow those activities inside the buffer.<br><br>San Joaquin Kit Fox must be allowed to disperse from their dens and from active construction activities. The Project will be designed – or construction will be phased – such that known dens are afforded a dispersal corridor consistent with the work restriction distances noted above. For example, if a new natal/pupping den is identified within the project area after construction has begun and would otherwise be surrounded by construction activity, a 500-foot dispersal corridor would be designated within which no active construction activity could take place and which would remain free from equipment that would bar passage of San Joaquin Kit Fox. The corridor could be modified as construction activities are completed in other areas adjacent to the den so long as at all times a non-obstructed no-work dispersal corridor is provided.<br><br>If take of San Joaquin Kit Fox cannot be avoided, the project proponent shall confer with California Department of Fish and Wildlife on the need for take authorization through the acquisition of an incidental take permit, pursuant to Fish and Game Code section 2081 subdivision (b).<br><br>**MM 4.4-7**: **Burrowing Owl, American Badger, and San Joaquin Kit Fox ~~SJKF~~ Detection.** Within 14 days of the start of project ground-disturbing activities, a pre-activity survey should be conducted by a qualified biologist knowledgeable in the identification of these species. If, during construction activities, a live burrowing owl, American badger, or San Joaquin Kit Fox ~~SJKF~~ is encountered, all construction activity should stop in the affected area until the animal leaves of its own volition. The special-status species should be avoided by construction activities and construction workers and allowed to leave the project site without harassment.<br><br>**MM 4.4-8: Burrowing Owl, American Badger, and San Joaquin Kit Fox ~~SJKF~~ Avoidance.** A qualified biologist should remain on-call throughout the construction phase in the event that a burrowing owl, American badger, or San Joaquin Kit Fox ~~SJKF~~ | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | occurs on the site during construction. If one of these species occurs on-site, the biologist should be contacted immediately to determine whether biological monitoring or the implementation of avoidance buffers may be warranted.<br><br>**MM 4.4-9: Standard Avoidance and Minimization Measures for the protection of San Joaquin Kit Fox ~~SJKF~~.** The following avoidance and minimization measures should be implemented during all phases of the project to reduce the potential for impact from the project. They are modified from the *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox ~~SJKF~~ Prior to or During Ground Disturbance* (~~USFWS~~ United States Fish and Wildlife Service 2011, Appendix E).<br>a. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction or project site.<br>b. Construction-related vehicle traffic shall be restricted to established roads and predetermined ingress and egress corridors, staging, and parking areas. Vehicle speeds shall not exceed 20 miles per hour (mph) within the project site.<br>c. To prevent inadvertent entrapment of kit fox or other animals during construction, the contractor shall cover all excavated, steep-walled holes or trenches more than two feet deep at the close of each workday with plywood or similar materials. If holes or trenches cannot be covered, one or more escape ramps constructed of earthen fill or wooden planks shall be installed in the trench. Before such holes or trenches are filled, the contractor shall thoroughly inspect them for entrapped animals. All construction-related pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored on the project site shall be thoroughly inspected for wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If at any time an entrapped or injured kit fox is discovered, work in the immediate area shall be temporarily halted and United States Fish and | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | Wildlife Service~~ USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~ shall be consulted.<br>d. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~ have been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.<br>e. No pets, such as dogs or cats, shall be permitted on the project sites to prevent harassment, mortality of kit foxes, or destruction of dens.<br>f. Use of anti-coagulant rodenticides and herbicides in project sites shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~. If rodent control must be conducted, zinc phosphide shall be used because of the proven lower risk to kit foxes.<br>g. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative shall be identified during the employee education program and their name and telephone number shall be provided to the | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | United States Fish and Wildlife Service ~~USFWS~~.<br>h. The Sacramento Fish and Wildlife Office of United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~ shall be notified in writing within three working days of the accidental death or injury to a San Joaquin Kit Fox ~~SJKF~~ during project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The United States Fish and Wildlife Service ~~USFWS~~ contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The California Department of Fish and Wildlife ~~CDFW~~ contact can be reached at (559) 243-4014 and R4CESA@wildlifeca.gov.<br>i. All sightings of the SJKF shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed shall also be provided to the Service at the address below.<br>j. Any project-related information required by the United States Fish and Wildlife Service ~~USFWS~~ or questions concerning the above conditions, or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at: Endangered Species Division, 2800 Cottage Way, Suite W 2605, Sacramento, California 95825-1846, phone: (916) 414-6620 or (916) 414-6600.<br><br>**MM 4.4-10: Pre-activity Surveys for Nesting Birds.** If project construction activities will be initiated during the nesting season (February 1 to September 15), a pre-activity nesting bird survey should be conducted within 14 days prior to the start of construction. The surveys should encompass the project site and accessible or land visible from accessible areas within a 250-foot buffer for songbirds and a 500-foot buffer for raptors. The surveys may be phased with construction of the project. The surveys shall also evaluate presence/absence of tricolored blackbird nesting colonies in proximity to project activities and to | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | evaluate whether there is a potential for project-related impacts. If no active nests are found, no further action is required. However, existing nests may become active and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress. Surveys for burrowing owl will follow ~~CDFW~~ California Department of Fish and Wildfire protocol.<br><br>If active nests are found during the survey or at any time during construction of the project, an avoidance buffer ranging from 50 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest, or if breeding attempts have otherwise been unsuccessful. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist shall have the ability to stop construction if nesting adults show any sign of distress.<br><br>If an active tricolored blackbird nesting colony is found during preconstruction surveys, a no-disturbance buffer will be established in accordance with ~~CDFW's~~ California Department of Fish and Wildlife's "Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agriculture Fields in 2015" (Appendix D1). This buffer will depend on the nature of the activity being conducted near the colony. For disturbances that are short in duration a 60-foot buffer would be appropriate. More intensive construction activities may require a buffer of up to 300 feet at the discretion of the biological monitor. The buffer will remain in place until the breeding season has ended or until a qualified biologist has determined that nesting has ceased, the birds have fledged, and are no longer reliant upon the colony or parental care for survival.<br><br>**MM 4.4-12: Swainson's Hawk Nest Avoidance.** No mature trees that could be used by nesting Swainson's hawk will be removed during construction of the project. If an active Swainson's hawk nest is discovered at any time within 0.5 miles of active construction, a qualified biologist should | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | complete an assessment of the potential for current construction activities to impact the nest. The assessment would consider the type of construction activities (e.g. noise levels and duration), the location of construction relative to the nest and pre-existing disturbance levels (e.g. construction activities in historically agricultural land versus activities in non-agricultural land), the visibility of construction activities from the nest location (e.g. topography or vegetation that could block line-of-sight to the nest), the number of construction personnel required to perform activities within the setback, and other existing disturbances in the area that are not related to construction activities of this project. Based on this assessment, the biologist will determine if construction activities can proceed, and the level of nest monitoring required. When conducting the assessment, the biologist will consider the following levels of construction activity, with higher levels of activity requiring greater caution in determining setbacks:<br>a. Light construction activity such as fence installation and limited vehicle access. Noise levels generated by these construction activities would likely be similar to existing ambient noise levels in closer proximity to the occupied nests.<br>b. Moderate and/or isolated construction activity such as grading and construction of substation, substation-access road, inverter skids, and manual installation of solar panels. Noise levels generated by these construction activities would likely be similar to existing ambient noise levels beyond a moderate distance from the occupied nests.<br>c. Heavy construction activity across a large area of the Project and/or using louder equipment such as pile drivers, concrete saws, or jackhammers. Noise levels for this type of activity will depend on location of the activities relative to the nest and allowing these activities within the 0.5-mile setback would require coordination with CDFW.<br>In the event the assessment determines that construction activities could occur closer than 0.5- | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | miles to an active nest, in no event would ~~C~~construction activities ~~should not~~ occur within 500 feet of an active nest without approval from CDFW ~~but depending upon conditions at the site this distance may be reduced~~. Full-time monitoring to evaluate the effects of construction activities on nesting Swainson's hawks ~~may~~ would be required. The qualified biologist ~~should~~ shall have the authority to stop work if it is determined that project construction is disturbing ~~the~~ nesting activities. These buffers may need to increase depending on the sensitivity of the nesting Swainson's hawk to disturbances and at the discretion of the qualified biologist. No avoidance would be needed if construction occurs near a known Swainson's hawk nest outside of the Swainson's hawk nesting season. In the event take cannot be avoided, the proponent shall confer with CDFW on the need for an incidental take permit.<br><br>**MM 4.4-15: Preconstruction Clearance Survey.** Within 14 days prior to the start of ground disturbance activities, a pre-activity survey should be conducted by a qualified biologist knowledgeable in the identification of all special-status plant and wildlife species on native habitat subject to disturbance. All suitable burrows that could support Blunt-Nosed Leopard Lizard ~~BNLL~~, Tipton kangaroo rat, Tulare grasshopper mouse, or other special-status wildlife species will be avoided during construction in accordance with MM 4.4-4 and MM 4.4-5. Consultation with the United States Fish and Wildlife Service ~~USFWS~~ and ~~CDFW~~ California Department of Fish and Wildlife may be required if listed or fully protected species are detected during the survey.<br><br>**MM 4.4-18: On-Site Biological Monitoring.** During construction of all portions of the project ~~(APNs 295-130-57, 295-100-19, 295-130-48, 295-130-51, 295-130-21, 295-130-26, 295-130-27, 295-120-15, and 295-130-81)~~, including the portions of the gen-tie line that occur within native habitat (Valley Sink Scrub), a biological monitor familiar with the biology and natural history of the special-status species potentially present at the Project with halt-work authority will be present to observe activities. During construction, the qualified biologist will have the authority to order a halt to | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | construction activities in the following instances: (1) a biological monitor observes activities that may result in mortality or harm to a listed or fully protected species (BNLL), (2) a biological monitor observes any of the mitigation and avoidance measures are not being implemented properly, 3) special-status species are detected in or immediately adjacent to the Project site and may be harmed if construction activity is permitted to continue, or (4) if warranted to allow special-status species to traverse to and from burrows. Construction will resume when either the listed species moves out of harm's way on its own or the avoidance and minimization measures that are not being implemented properly are rectified. The biological monitor shall take steps in coordination with construction personnel to allow any special-status species observed to leave the site on their own accord and biological monitors will have the ability to halt work in areas of the Project to ensure safe dispersal. | |
| **Impact 4.4-3:** The project would have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. | Potentially significant | **MM 4.4-21: Wetland and Waters Delineation**<br>a. Prior to issuance of any grading or building permit, the project proponent/operator shall conduct a preliminary assessment of the identify aquatic features on the project site to determine which of these features could potentially be under the jurisdiction of the ~~USACE~~, ~~CDFW~~, and/or ~~RWQCB~~ United States Army Corps of Engineers, California Department of Fish and Wildlife, and/or Regional Water Quality Control Board. The report will include a discussion of the methods and results, including maps, of the assessment of all potentially jurisdictional aquatic features at the project site and will be submitted to the County.<br>b. If the proponent determines that the project could directly or indirectly impact aquatic resources potentially under the jurisdiction of the ~~USACE~~, ~~CDFW~~, and/or ~~RWQCB~~ United States Army Corps of Engineers, California Department of Fish and Wildlife, and/or Regional Water Quality Control Board, a formal aquatic resource delineation of these areas will be performed pursuant to accepted agency delineation protocols by a qualified | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | professional to determine the extent of agency jurisdiction and the extent of potential impacts to agency jurisdiction.<br>c. If it is determined that aquatic features under agency jurisdiction will be impacted, the appropriate permits and authorizations from the regulating agencies shall be obtained prior to disturbance to jurisdictional features. The permit/authorization process typically includes the submittal of a detailed jurisdictional delineation report, measures to avoid, minimize, and/or mitigate for impacts, and required applications to each resource agency and consultations with agency staff.<br>d. As part of the permit/authorization application process, compensatory mitigation may be required by the agencies to offset the loss of aquatic resources. If so, and as part of the permit application process, a qualified professional shall draft a mitigation and monitoring plan to address implementation and monitoring requirements expected to be included under the permit to ensure that the project would result in no net loss of habitat functions and values. The plan shall contain, at a minimum, mitigation goals and objectives, mitigation location, a discussion of actions to be implemented to mitigate the impact, monitoring methods and performance criteria, extent of monitoring to be conducted, actions to be taken in the event that the mitigation is not successful, and reporting requirements. The plan shall be approved by the appropriate regulating agencies and compensatory mitigation shall take place either on site or at an appropriate off-site location.<br>e. Any material/spoils generated from project activities containing hazardous materials will be located away from jurisdictional areas or special-status habitat and protected from storm water run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate.<br>f. Equipment containing hazardous liquid materials will be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | at least 50 feet outside the delineated boundary of jurisdictional water features.<br>g. Any spillage of material will be stopped if it can be done safely. The contaminated area will be cleaned, and any contaminated materials properly disposed. For all spills, the project foreman or designated environmental representative will be notified. | |
| **Impact 4.4-4:** The project could interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. | Potentially significant | **MM 4.4-22: Fence Design and Site Permeability.** Fences installed on the perimeter of the solar project site will be designed to allow for passage of ~~SJKF~~ San Joaquin Kit Fox, their prey and other listed wildlife, while impeding the passage of larger predators of kit foxes, such as coyotes and larger domestic dogs. Perimeter fencing shall consist of wire fencing, with openings from 3 to 7 inches square and will be installed inverted, with the larger openings at the bottom to allow ~~SJKF~~ San Joaquin Kit Fox to pass through. Chain link fencing may also be used if it is installed with a 4-6-inch gap from the bottom of the fencing material shall be knuckled back to from a smooth edge. Alternate designs may also be constructed with prior written approval from ~~CDFW~~ California Department of Fish and Wildlife and ~~USFWS~~ United States Fish and Wildlife Service. In addition, low vegetation will be maintained within the solar arrays so that wildlife such as ~~SJKF~~ San Joaquin Kit Fox can utilize the project area during operation. | Less than significant |
| **Cultural Resources** | | | |
| **Impact 4.5-2:** The project would cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. | Potentially significant | Implementation of **MM 4.5-1** through **MM 4.5-3** would be required. | Less than significant |
| **Impact 4.5**: Cumulative Impacts | Potentially significant | Implementation of **MM 4.5-1** through **MM 4.5-4** would be required. | Less than significant |
| **Energy** | | | |
| **Impact 4.6:** Cumulative Impacts | Potentially significant | Implementation of **MM 4.3-5** and **MM 4.3-7** would be required. | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| **Geology and Soils** | | | |
| **Impact 4.7-1:** The project would directly or indirectly cause 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. | Potentially significant | **MM 4.7-2:** If located within 500 feet of mapped active fault traces, critical equipment and underground utilities/transmission lines should be designed to accommodate ground displacements of at least ~~two~~ 2 feet, consistent with current Kern County Building Code requirements and approval from Kern County Engineering Department. | Less than significant |
| **Impact 4.7-2:** The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: strong seismic ground shaking. | Potentially significant | **MM 4.7-3:** 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.<br>The project proponent shall retain a California registered and licensed geotechnical engineer to design the project facilities to withstand probable seismically induced ground shaking at the site. All grading and construction on site 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.<br>a. The geotechnical study must be signed by a California registered and licensed professional geotechnical engineer or engineering geologist and must include, but not be limited to, the following:<br>1. ~~i.~~ Location of fault traces and potential for surface rupture and ground shaking potential;<br>2. ~~ii~~. Maximum considered earthquake and associated ground acceleration for design; | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | 3.~~iii.~~ Potential for seismically induced liquefaction, landslides, differential settlement, and unstable soils;<br>4 .~~iv~~. Stability of any existing or proposed cut-and-fill slopes;<br>5. ~~v~~.Collapsible or expansive soils;<br>6. ~~vi.~~ Foundation material type;<br>7. ~~vii.~~ Potential for wind erosion, water erosion, sedimentation, and flooding;<br>8.~~viii.~~ Location and description of unprotected drainage that could be impacted by the proposed development; and,<br>9. ~~ix~~. Recommendations for placement and design of facilities, foundations, and remediation of unstable ground.<br>b. 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.<br>c. 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 or mitigated.<br>~~c.~~ d. 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 4.7-5:** The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: substantial soil erosion or the loss of topsoil. | Potentially significant | Implementation of **MM 4.7-3** would be required.<br><br>**MM 4.7-4:** The construction contractor shall incorporate ~~b~~Best ~~m~~Management ~~p~~Practices consistent with the National Pollutant Discharge Elimination System Construction General Permit Program for all construction projects that would not retain all stormwater on site and the Kern County Grading Code. The project proponent shall prepare an Erosion and Sedimentation Control Plan and a Stormwater Pollution Prevention Plan ~~(SWPPP)~~. The Stormwater Pollution Prevention Plan ~~(SWPPP)~~ shall be prepared by a Qualified Stormwater Pollution Prevention Plan ~~SWPPP~~ | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | Developer and submitted for review and approval by the applicable Regional Water Quality Control Board. The Stormwater Pollution Prevention Plan ~~SWPPP~~ Best Management Practices ~~BMPs~~ shall include the following:<br>a. Scheduling to avoid ground disturbance during rain events to the maximum extent possible<br>b. Preservation of existing vegetation and topography to the maximum extent practicable<br>c. Stabilized construction entrances and exits<br>d. Erosion control (including all pertinent temporary erosion control practices as specified in Chapter 17.28.140 of the Kern County Grading Code), such as mulching, temporary drains and cullies, sandbag barrier, geotextiles and mats, silt fences, brush or rock filters, earth dikes, straw bale barriers, and sediment traps<br>e. Sediment control<br>f. Waste management<br>g. Good housekeeping<br>h. Post-construction site stabilization<br>i. Prior to initial construction mobilization, preconstruction surveys shall be performed, and sediment and erosion controls shall be installed in accordance with the approved Stormwater Pollution Prevention Plan. A copy of the approved Stormwater Pollution Prevention Plan shall be submitted to the Kern County Planning and Natural Resources Department. | |
| **Impact 4.7-9:** The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. | Potentially significant | **MM 4.7-6:** The project proponent shall retain a qualified paleontologist, defined as a paleontologist meeting the requirements set forth in the Society for Vertebrate Paleontology's Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010), to carry out all mitigation measures related to paleontological resources. The qualified paleontologist and the lead archeologist may be the same individual.<br>a. Prior to the start of any ground disturbing activities, the qualified paleontologist shall prepare a Paleontological Resources Awareness Training program for all construction personnel working on the project. A Paleontological Resources Awareness Training Guide approved by the qualified paleontologist shall be provided to all personnel. A copy of the Paleontological | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | Resources Awareness Training Guide shall be submitted to the Kern County Planning and Natural Resources Department. The training guide may be presented in video form.<br>~~a.~~ b. Paleontological Resources Awareness Training may be conducted in conjunction with the archaeological resources training required by Mitigation Measure MM 4.5-1 presented in Section 4.5, Cultural Resources.<br>~~b.~~ c. The training shall include an overview of potential paleontological resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified paleontologist for further evaluation and action, as appropriate; and penalties for unauthorized fossil collecting or intentional disturbance of paleontological resources.<br>~~c.~~ d. The project operator shall ensure all new on-site construction personnel who have not participated in earlier Paleontological Resources Awareness Trainings shall meet the provisions specified above.<br>~~d.~~ e. The Paleontological Resources Awareness Training Guides shall be kept available for all personnel to review and be familiar with, as necessary.<br><br>**MM 4.7-7:** During construction, the qualified paleontologist or designated monitor shall monitor all ground-disturbing activities (with the exception of vibratory or hydraulic installation of tracking or mounting structures and foundations or supports) that occurs at a depth of 15 feet or deeper below ground surface.<br>a. The duration and timing of monitoring shall be determined by the qualified paleontologist in consultation with the Kern County Planning and Natural Resources Department and shall be based on a review of geologic maps and grading plans.<br>1. During the course of monitoring, if the paleontologist can demonstrate, based on observations of subsurface conditions, that the level of monitoring could be reduced, the paleontologist, in consultation with the Kern County Planning and Natural | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | Resources Department, may adjust the level of monitoring to circumstances, as warranted.<br><br>b. Paleontological monitoring shall include inspection of exposed rock units during active excavations within sensitive geologic sediments. The qualified paleontologist shall have authority to temporarily divert excavation operations away from exposed fossils to collect associated data and recover the fossil specimens if deemed necessary.<br>c. Following completion of monitoring, the paleontologist shall prepare a report documenting the absence or discovery of fossil resources on site. If fossils are found, the report shall summarize the results of the inspection program, identify those fossils encountered, discuss recovery and curation efforts, and provide the methods used in these efforts, as well as describe the fossils collected and their significance. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department and to an appropriate repository, such as the Natural History Museum of Los Angeles County. | |
| **Impact 4.7:** Cumulative Impacts | Potentially significant | Implementation of **MM 4.7-1** through **MM 4.7-8** would be required. | Less than significant |
| **Hazards and Hazardous Materials** | | | |
| **Impact 4.9-2:** The project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. | Potentially significant | Implementation of **MM 4.9-1** and **MM 4.9-2** would be required.<br><br>**MM 4.9-3**: During project construction, operation, and decommissioning, the project proponent/operator shall continuously comply with the following:<br>• a. The construction contractor or project personnel shall use herbicides that are recommended by the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service. Personnel applying herbicides shall have all appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use. | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | • 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.<br>• f. A written record of all herbicide applications on the site, including dates and amounts shall be furnished to the Kern County Planning and Natural Resources Department. | |
| **Impact 4.9:** Cumulative Impacts | Potentially significant | Implementation of **MM 4.9-1** through **MM 4.9-4, & MM 4.14-1** would be required. | Less than significant |
| **Hydrology and Water Quality** | | | |
| **Impact 4.10:** Cumulative Impacts | Potentially significant | Implementation of **MM 4.7-4, MM 4.9-2 & MM 4.10-1** would be required. | Less than significant |
| **Mineral Resources** | | | |
| **Impact 4.12-1**: The project would result in the loss of availability of a known mineral resource that would be of value to the region and residents of the State. | Potentially significant | **MM 4.12-1:** Prior to issuance of any grading or building permit, excluding the generation tie line in the conservation area (developer protected areas), the applicant shall provide the following documentation regarding the mineral rights holders who also have right of surface access and drilling areas:<br>a. Written authorization, in a separate document outside any agreement, from the mineral right holder that they agree to solar panels being placed on the specific parcel with the mineral | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | rights. The letter shall include the specific Assessor's Parcel Number of the property and name of the mineral rights holders, and any agreements for size and location of drilling areas.<br>b. A site plan showing the unbuildable drilling areas provided for the mineral holders with clear notation that no use of the area can be made for the life of the project except for exploration and extraction of oil and gas with permits without purchase and ownership of full mineral rights. No construction storage or laydown area may be established at any time in the drilling areas unless permitted through an individual agreement. All drilling areas shall be fenced and provided legal access across the site, and a 40-foot-long gate provided or as detailed by the individual agreement including a provision to not fence the drill island.<br>c. For all mineral rights holders that do not have an individual agreement and have right of surface access, a drilling area sufficient to provide access to their minerals shall be shown on the final site plan and acknowledged in all grading plans. | |
| **Impact 4.12:** Cumulative impacts | Potentially significant | Implementation of Mitigation Measure **MM 4.12-1** would be required. | Less than significant |
| **Noise** | | | |
| **Impact 4.13-1:** The project could result in generation of a substantial temporary increase in the ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies. | Potentially significant | **MM 4.13-1:** The following measures are to be implemented to further reduce short-term noise levels associated with project construction and decommissioning:<br>a. 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. ~~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~~ | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | ~~away from sensitive receptors nearest the project site, where feasible.~~<br>b. Construction equipment shall be fitted with noise-reduction features such as mufflers and engine shrouds that are no less effective than those originally installed by the manufacturer.<br>c. Construction and decommissioning activities at the project site shall comply with the hourly restrictions for noise-generating construction activities, as specified in the County of Kern's Code of Ordinances, Chapter 8.36. Accordingly, construction activities shall be prohibited between the hours of 9 p.m. and 6 a.m. on weekdays, and between 9 p.m. and 8 a.m. on weekends. These hourly limitations shall not apply to activities where hourly limitations would result in increased safety risk to workers or the public, such as commissioning and maintenance activities that must occur after dark to ensure photovoltaic arrays are not energized, unanticipated emergencies requiring immediate attention, or security patrols.<br>d. Haul trucks shall not be allowed to idle for periods greater than five minutes, except as needed to perform a specified function (e.g., concrete mixing).<br>e. Onsite vehicle speeds shall be limited to 15 miles per hour, or less (except in cases of emergency).<br>f. Back-up beepers for all construction equipment and vehicles shall be broadband sound alarms or adjusted to the lowest noise levels possible, provided that the Occupational Safety and Health Administration and California Division of Occupational Safety and Health's safety requirements are not violated. On vehicles where back-up beepers are not available, alternative safety measures such as escorts and spotters shall be employed. | |
| **Impact 4.13**: Cumulative Impacts | Potentially significant | Implementation of **MM 4.13-1** through **MM 4.13-4** would be required**.** | Less than significant |
| **Public Services** | | | |
| **Impact 4.14-1:** The project would result in substantial adverse physical impacts associated with the | Potentially significant | **MM 4.14-2:** The following Cumulative Impact Charge (CIC) shall be implemented as payment on approved Conditional Use Permit acreage.<br>a. Submittal of Building Permit and Phasing | Less than significant |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any public services. | | 1. Any building permit application submitted shall be accompanied by a map and legal description showing a defined phase for which permits are being requested. All phases shall be numbered sequentially for identification.<br>2. The map for either the total project or a phase shall calculate the CIC net acreage as follows:<br>A. ~~a.~~ Total gross acreage (Phase).<br>B. ~~b.~~ Total acres for operations and maintenance building permanent accessory improvements.<br>C. ~~c.~~ Total acres for energy storage structure and permanent accessory improvements.<br>D. ~~d.~~ Total acres of recorded easements or on-site conservation lands.<br>3. Formula: Net Acreage = (2)A minus the sum of [(2)B + (2)C + (2)D].<br>4. Temporary storage areas or non-permanent commercial coaches or cargo containers for construction or operations are not eligible for inclusion under (2)B or (2)C, above.<br>5. All areas of buildings, accessory improvements, and easement used in the calculations shall be shown on the submitted Phase Map.<br>6. Any property included in the approved Conditional Use Permit that is not included in a phase must be included in the last phase or a formal modification processed to remove it from the Conditional Use Permit.<br>b. Calculation and Payment of CIC<br>1. A payment of $620 per net acre for the map shown with the building permit submittal shall be paid upon issuance of the first building permit. If it is not paid within 30 days after the issuance of the first building permit for the phase regardless of the total number of building permits or type of building permit issued, all such permits shall be suspended until the fee is paid in full.<br>2. Payments shall be made to the Planning and Natural Resources Department for transfer directly to the Kern County Administrative Office Fiscal Division and labeled | |

**TABLE 1-5: SUMMARY OF PROJECT IMPACTS**

| Impact | Level of Significance before Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|---|---|
| | | "Cumulative Impact Charge (CIC)," with the project name and phase number.<br>3. Any acres denoted for an operation and maintenance building or energy storage that are not built cannot be used for solar panels unless payment is provided for the CIC. | |
| **Impact 4.14**: Cumulative Impacts | Potentially significant | Implementation of **MM 4.14-1** through **MM 4.14-5** would be required. | Less than significant |
| **Transportation** | | | |
| **Impact 4.15**: Cumulative Impacts | Potentially significant | Implementation of **MM 4.15-1** would be required. | Less than significant |
| **Tribal Cultural Resources** | | | |
| **Impact 4.16:** Cumulative Impacts | Potentially significant | Implementation of **MM 4.5-1** through **MM 4.5-4** would be required. | Less than significant |
| **Wildfire** | | | |
| **Impact 4.18**: Cumulative Impacts | Potentially significant | Implementation of **MM 4.7-3, MM 4.7-4** and **MM 4.14-1** would be required. | Significant and unavoidable |

## Chapter 2, Introduction; Section 2.4, Decision-Making Process, Page 2-3 to 2-4:

- **Initial Study/Notice of Preparation (IS/NOP).** CEQA requires a 30-day review period following release of an IS/NOP; however, the County of Kern (County) prepared and circulated an IS/NOP for ~~60~~ 30 days to responsible, trustee, and local agencies for review and comment beginning on April 30, 2021, and ending on June 1, 2021.

## Chapter 2, Introduction; Section 2.4.1, Initial Study/Notice of Preparation, Page 2-4:

Pursuant to *CEQA Guidelines* Section 15082, as amended, the Kern County Planning and Natural Resources Department circulated an IS/NOP to the State Clearinghouse, public agencies, special districts, and members of the public for a public review period beginning April 30, 2021, and ending on June 1, 2021. The IS/NOP was also posted in the Kern County Clerk's office for ~~60~~ 30 days and sent to the State Clearinghouse at the Governor's Office of Planning and Research to solicit statewide agency participation in determining the scope of the EIR.

## Chapter 3, Project Description; Section 3.1, Introduction, Page 3-1:

This Environmental Impact Report (EIR) was prepared by Kern County (County), the acting lead agency, to identify and evaluate potential environmental impacts associated with construction and operation of the Sandrini Solar Project (project). The project would include a 300-megawatt (MW) alternating-current (AC) solar photovoltaic (PV) facility and necessary associated infrastructure, including up to 100 MW of energy storage and operations and maintenance (O&M) facilities. The project as proposed by EDPR CA Solar Park LLC [EDPR Renewables] (project proponent) would be located on 33 parcels across approximately

3,469.87 acres of privately owned land currently under agricultural use in the valley region of Kern County. Approximately 2,472.89 acres of the project site would be developed as a PV solar facility, including battery energy storage and associated infrastructure, while the approximately 996.98 acres remaining would be restricted to use for conservation of habitat (proposed conservation area or developer protected area) and could not be developed.

**Chapter 3, Project Description; Section 3.5.3, Introduction, Page 3-35:**

Figure 3-8 revised to show that all Williamson Act contracts for parcels located within the project boundary are in non-renewal status.

**Chapter 3, Project Description; Section 3.7.1, Construction Activities, Page 3-48:**

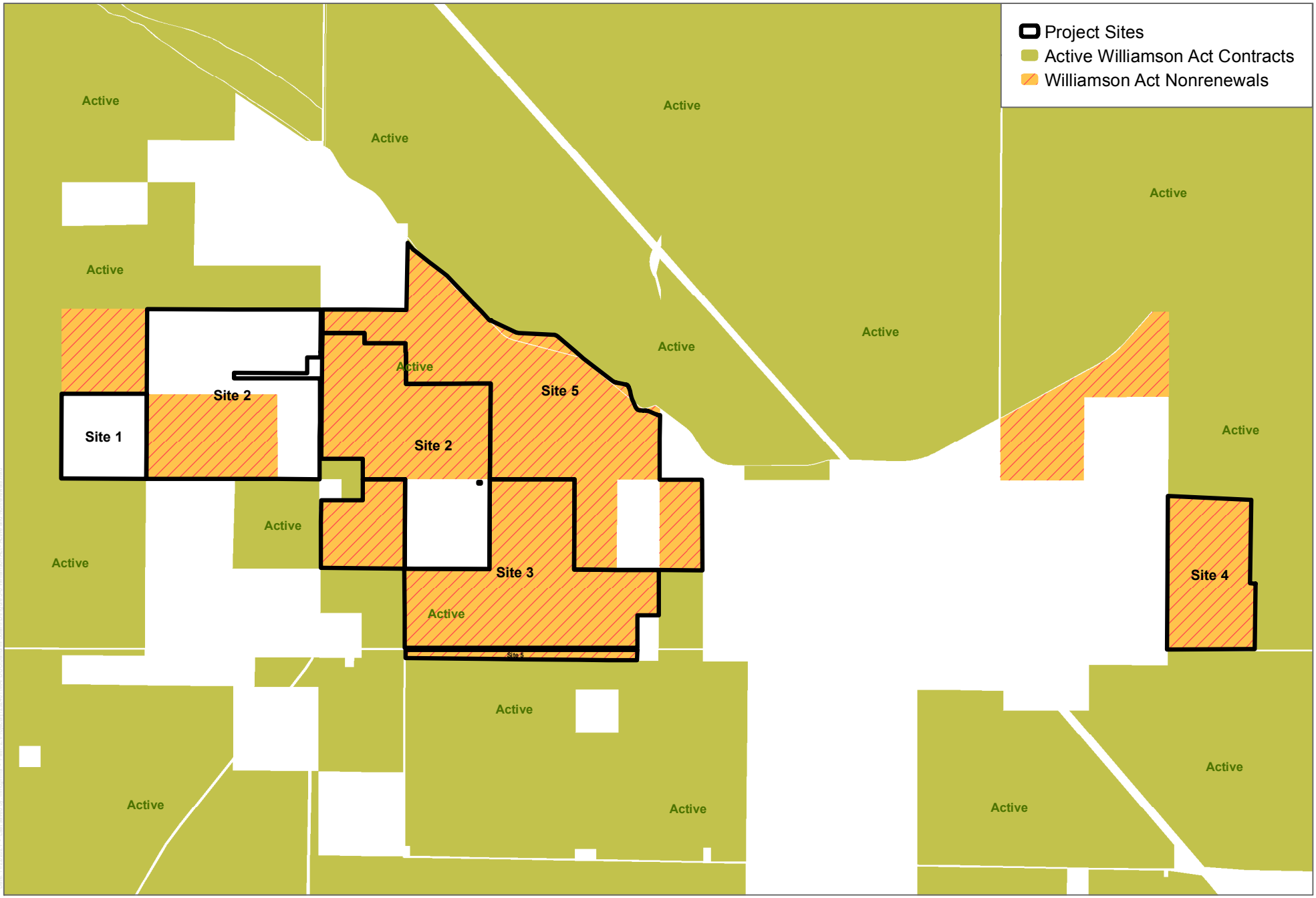
## Construction Water Use

The primary proposed source of water for project construction is groundwater from a privately owned well (Maricopa Orchards, Well 1/Old River Well) located adjacent to the project parcels in the Wheeler Ridge-Maricopa Water Storage District. Well 2/Copus Well, which is also located within the Wheeler Ridge-Maricopa Water Storage District, was also evaluated for use. A water rights/pumping purchase agreement with a private groundwater well landowner would cover construction water usage. During construction, water would be used as conditions require for dust suppression on and along the project roads. The amount of water used would vary based on site conditions and local rainfall amounts, but in general would require approximately 425 ~~65~~ acre-feet of water to support construction over a 12 ~~14~~-month period. During construction and decommissioning, potable water for drinking and hand washing would be brought to the site by a bottled water service provider.

**Chapter 3, Project Description; Section 3.7.2, Operation and Maintenance, Page 3-50:**

## Operations Water Use

The proposed solar PV panels would require minimal water use. Panel surfaces would be washed to increase average optical transmittance, and panel washing is expected once per year using the water from multiple loads of water carried by 5,000-gallon water trucks. The annual water consumption for operations of the facility, including periodic PV module washing, is expected to be approximately ~~1~~ 2.5 acre-foot per year. The primary proposed source of water for project operations is the privately owned well adjacent to the project parcels used for construction. As described above, a water rights/pumping purchase agreement with a private groundwater well landowner would cover construction and O&M water usage.




SOURCE: USGS National Map 2021; CA Dept of Conservation 2009

DUDEK

0 2,000 4,000 Feet

**Case Numbers:**

Conditional Use Permit No. 9, Map No. 159
Conditional Use Permit No. 27, Map No. 160
Conditional Use Permit No. 28, Map No. 160
Conditional Use Permit No. 29, Map No. 160
Conditional Use Permit No. 27, Map No. 161
General Plan Amendment No. 2, Map No. 159
General Plan Amendment No. 3, Map No. 160
General Plan Amendment No. 4, Map No. 161
Williamson Act Land Use Cancellations

**FIGURE 3-8**

Williamson Act - Active and Nonrenewals

Kern County Planning and Natural Resources Department

Sandrini Solar Project ƒ By: EDP Renewables North America, LLC

INTENTIONALLY LEFT BLANK

**Chapter 4.2, Agricultural Resources; Section 4.2.2, Environmental Setting, Page 4.2-1 to 4.2-2:**

## Regional Setting

Kern County covers approximately 8,163 square miles (5,224,258 acres) including 1,384 square miles (885,957 acres) of harvested agricultural land and approximately 2,889 square miles (1,849,266 acres) of grazing land. According to the ~~2018~~ 2020 Kern County Agricultural Crop Report, agriculture in Kern County was worth approximately $~~7.4~~ 7.6 billion in 2020 ~~2018~~, which is an increase of 1 ~~3~~% from the 2019 ~~2017~~ crop value. The top five commodities for 2020 ~~2018~~ were grapes, almonds, citrus, milk, and pistachios, which made up more than $5.5 ~~4.4~~ billion (72 ~~59~~%) of the total value, with the top twenty commodities making up more than 95 ~~71~~% of the total value ~~(Appendix B)~~.

Kern County is a growing population and like many agriculturally based jurisdictions, must balance urbanization and the loss of farmland. ~~As shown in **Table 4.2-1**, *Agricultural Land Use Designation Conversions in 2018*, approved amendments re-designated 132.18 acres of agriculturally designated lands for non-agricultural uses.~~ As discussed in Chapter 11.0 *Agricultural Land Conversion*, of the Kern County General Plans and Housing Element Annual Progress Report (January 1, ~~2018~~2020, to December 31, ~~2018~~2020), there were no amendments resulting ~~resulted~~ in a ~~total net~~ conversion of agricultural land~~132.18 acres~~ within unincorporated Kern County. ~~(Note: These various farmland designations are defined in Section 4.2.3, *Regulatory Setting*).~~

Table 4.2-1 Deleted

~~**TABLE 4.2-1: AGRICULTURAL LAND USE DESIGNATION CONVERSIONS IN 2018**~~

| ~~Project/Applicant~~ | ~~Case Number~~ | ~~Document~~ | ~~From Map Code~~ | ~~To Map Code~~ | ~~Acreage Converted~~ |
|---|---|---|---|---|---|
| ~~Afinar, Inc. by Bernard Salgado~~ | ~~GPA 5, Map 143-41~~ | ~~KCGP~~ | ~~8.1/2.3~~ | ~~5.7/2.3~~ | ~~-21.18~~ |
| ~~Highway 58, LLC by EPD Solutions~~ | ~~SPA 2, Map 30~~ | ~~Lost Hills Specific Plan~~ | ~~4.1 (Agriculture)~~ | ~~4.1 (Industrial)~~ | ~~-112~~ |
| | | | ~~**Total Acreage Converted (net)**~~ | | ~~**-132.18**~~ |

~~SOURCE: *Kern County General Plans and Housing Element Annual Progress Report (January 1, 2018 to December 31, 2018)*, 2019.~~

**Chapter 4.3, Air Quality; Section 4.3.2, Environmental Setting, Page 4.3-12:**

### Health Effects

…Acid rain can lead to corrosion of man-made structures and cause acidification of water bodies. Sulfates are particularly effective in degrading visibility and, because they are usually acidic, can harm ecosystems and damage materials and property (CARB ~~2009~~ 2019b).

**Chapter 4.3, Air Quality; Section 4.3.4, Impacts and Mitigation Measures, Page 4.3-12:**

## Mitigation Measures

**MM 4.3-7:** The project proponent shall continuously comply with the following measures during operation of the project to control emissions from the on-site dedicated equipment (equipment that would remain on-site each day):

a. All onsite off-road equipment and on-road vehicles for operation/maintenance shall be new equipment that meets the recent ~~the~~ California Air Resources Board engine emission standards or alternatively fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, as appropriate.

**MM 4.3-10:** To minimize personnel and public exposure to potential Valley Fever–containing dust on and off site, the following control measures shall be implemented during project construction: …

h. Onsite personnel shall be trained on the proper use of personal protective equipment, including respiratory equipment. National Institute for Occupational Safety and Health–approved respirators shall be provided to onsite personal, upon request. When exposure to dust is unavoidable, provide appropriate national Institute for Occupational Safety and Health-approved respiratory protection to affected workers. If respiratory protection is deemed necessary, employers must develop and implement a respiratory protection program in accordance with Cal/Occupational Safety and Health Administration's Respiratory Protection standard (8 CCR 5144).

**Chapter 4.4, Biological Resources; Section 4.4.3, Environmental Setting, Page 4.4-32 to 4.4-33:**

## Sensitive Natural Communities

### Plant Communities

Sensitive plant communities (alliances and their associations) are defined by CDFW using Holland types (Sawyer, et. al. 2009). Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. For alliances with State ranks of S1-S3 (S1: critically imperiled; S2: imperiled; S3: vulnerable) as identified in the List of Vegetation Alliances and Associations (~~CDFG 2010~~ CDFW 2021

& CNDDB 2021) and subsequent updates, all associations within them are also considered to be highly imperiled.

**Chapter 4.4, Biological Resources; Section 4.4.5, Impacts and Mitigation Measures, Page 4.4-42:**

## Applicant Proposed Conservation Area (Developer Protected Area)

In an effort to further reduce or offset impacts to the sensitive Valley Sink Scrub habitat and plant and wildlife species that may rely on that habitat, the applicant will preserve any undeveloped portions of Valley Sink Scrub habitat on site during the life of the project (at least 35 years). This area may still be used for approximately 1.4 miles of gen-tie line for the project including a temporary access area approximately 30-feet wide (for a total disturbed area of approximately 5 acres). The total current Valley Sink Scrub acreage within the project footprint consists of approximately 905 acres; however to accommodate the approximately 5 acres needed for access along the gen-tie line, it is assumed that approximately 900acres would be preserved. Additionally, approximately 97 acres of agricultural habitat of the Zone Map #160 project footprint would be preserved for a total of approximately 997 acres of habitat that will not be developed. All 997 acres would serve as foraging habitat for several special-status wildlife species such as Swainson's hawk and San Joaquin kit fox and would help to offset impacts to approximately 2,473 acres of agricultural foraging habitat from the remainder of the project. The property would be preserved through appropriate legal protection such as a deed restriction or similar restrictive covenant that would ensure the land remain undeveloped while the project is operational. The location of the conservation area (developer protected area) is depicted in Figure 3-3, *Aerial Photograph*, and Figure 4-4 of Appendix D1.

**Chapter 4.4, Biological Resources; Section 4.4.5, Impacts and Mitigation Measures, Page 4.4-43 to 4.4-44:**

**MM 4.4-1:** If ~~special-status~~ listed plant species are found during floristic surveys or have been previously identified, then Ecologically Sensitive Area (ESA) fencing should be established at a 50-foot radius around these individuals to ensure that they are not destroyed during project construction activities. ~~Pursuant to Section 1913(c) of the California Fish and Game Code,~~ If project activities cannot avoid direct impacts to ~~special-status~~ non-listed plants with a California Rare Plant Rank, California Department of Fish and Wildlife shall be notified and provided the opportunity to salvage any of these plants that would be affected. The California Department of Fish and Wildlife may enter into agreement with the project proponent to retain a qualified entity for the relocation of sensitive plants to an approved location. Any salvage would be undertaken in accordance with a salvage plan to be developed in consultation with California Department of Fish and Wildlife. The plan would include methods for transplanting and watering (if appropriate), success criteria for salvaged plants, monitoring the health and survivorship of salvaged plants during at least 5 years following salvage, and contingency measures if plant survivorship requirements are not satisfied. If listed plant species are identified in the Project area, CDFW would be conferred with to determine if the Project can avoid take of listed species. In the event take cannot be avoided, the project proponent shall confer with CDFW on the need for an incidental take permit.

**MM 4.4-2:** Invasive species have the potential to out-compete native special-status plant species. Consequently, the introduction and spread of invasive and non-native plant species should be avoided and controlled wherever possible during construction and operations within the project footprint. This may be achieved through the following measures:

a. Clean vehicles and equipment before they enter construction areas.
b. Apply chemical deterrents or implementing appropriate revegetation actions to disturbed areas to prevent growth of invasive species.
c. Implement an annual weed and invasive species control program within the project footprint and areas temporarily impacted during construction.

**MM 4.4-3:** To reduce any indirect impacts to special-status plants that may be in the project footprint, best management practices ~~(BMPs)~~ will be implemented to control dust pollution, prevent discharge of potentially harmful chemicals, and prevent changes in hydrology. Best Management Practices may include the installation of erosion and sedimentation control devices, applying water to control dust, placing drip pans under equipment when not in use, refueling in designated areas, and containing concrete washout properly, among other practices.

## Chapter 4.4, Biological Resources; Section 4.4.5, Impacts and Mitigation Measures, Page 4.4-56 to 4.4-68:

**MM 4.4-4:** The area of Valley Sink Scrub habitat located in Zone Map #160 contains suitable habitat, including burrows, for Blunt-Nosed Leopard Lizard ~~BNLL~~. If project activities in this area cannot be avoided (i.e., solar arrays or power pole locations) and if small mammal burrows cannot be avoided by ground-disturbing activities (e.g. excavation or grading) with a 50-foot buffer per MM 4.4-5, qualified biologists shall conduct protocol-level surveys for blunt-nosed leopard lizard at disturbance locations within the 50-foot burrow buffer according to the *Approved Blunt-nosed Leopard Lizard Survey Methodology*, as revised as of October 2019 (Appendix D1), or using another survey protocol approved by United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~. Project activity outside the specified 50-foot buffer may proceed while surveys are conducted. ~~Overland~~ Travel ~~not requiring ground disturbance~~ utilizing pre-existing access roads may be permitted within the 50-foot buffer under the direct supervision of a qualified biologist. If no blunt-nosed leopard lizard is observed during the survey no further action is required. If blunt-nosed leopard lizards are observed during the survey or incidentally during construction, then the measures below should be implemented:

a. Mitigation Measure MM 4.4-5 should be implemented to avoid all blunt-nosed leopard lizards that might be present in underground burrows. This would only be required in areas where blunt-nosed leopard lizards were determined to be present.

b. All construction activities occurring during the active Blunt-Nosed Leopard Lizard ~~BNLL~~ season in areas where Blunt-Nosed Leopard Lizard ~~BNLL~~ were determined to be present shall require that on-site biological monitors be present at each site where activities are occurring within these areas. ~~If a BNLL is present within 50 feet of the construction activities, the monitor shall halt all activities until the BNLL leaves the 50-feet area on its own accord.~~ If a biological monitor or any other Project staff identify

blunt-nosed leopard lizard within 1,500 feet of construction activity, construction within that buffer will pause until a monitor is positioned to directly observe the individual. Construction would continue unless the monitor determines that the individual is approaching an active construction area. In no event would active ground disturbance occur within 400 feet of an observed BNLL. CDFW would be notified if a biological monitor or construction staff observes a BNLL on or adjacent to the Project site.

Consultation with the California Department of Fish and Wildlife ~~(CDFW)~~ and United States Fish and Wildlife Service ~~(USFWS)~~ will occur and an incidental take permit will be sought from ~~USFWS~~ United States Fish and Wildlife Service if take of Blunt-Nosed Leopard Lizard ~~BNLL~~ habitat (as defined by the federal Endangered Species Act) cannot be avoided. An incidental take permit would ensure that any impacted habitat is offset with mitigation habitat at a ratio to be determined in consultation with United States Fish and Wildlife Service ~~USFWS~~. Consultation with California Department of Fish and Wildlife ~~CDFW~~ will ensure that no direct take of individual Blunt-Nosed Leopard Lizard ~~BNLL~~ occurs given the protection afforded to this species as a Fully Protected Species under Fish and Game Code 5050.

**MM 4.4-5 Avoidance of Small Mammal Burrows.** …

If small mammal burrows cannot be avoided by ground disturbing activity (e.g. excavation or grading) and/or overland travel outside pre-existing access roads with a 50 –foot buffer, then verification trapping or other method as developed in consultation with California Department of Fish and Wildlife ~~CDFW~~ and United States Fish and Wildlife Service ~~USFWS~~ will be conducted in those areas of the buffer that cannot be avoided. If it is determined that the Tipton kangaroo rat or San Joaquin antelope squirrel is absent, then no further measures are warranted. If present, the following measures should be implemented:

a. The loss of occupied habitat should be compensated at a an agreed upon ratio with the appropriate agencies but no less than a 1:1 ratio to ensure no net loss of habitat.

b. Consultations with the United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~ will occur and Incidental Take Permits acquired if take of listed species cannot be avoided.

If it is determined that the Tulare grasshopper mouse is present, a biological monitor should be on site to relocate any animals that might not leave the work site on their own volition.

**MM 4.4-6 Avoidance of Burrows for Burrowing Owl, American Badger, and ~~SJKF~~ San Joaquin Kit Fox.** Within 14 days prior to the start of project ground-disturbing activities, a pre-activity survey within a 500-foot buffer where land access is permitted ~~should~~ shall be conducted by a qualified biologist knowledgeable in the identification of these species and approved by the California Department of Fish and Wildlife ~~CDFW~~. Surveys need not be conducted for all areas at one time; they may be phased so that surveys occur within 14 days of the portion of the project site that will be disturbed. If dens/burrows that could support any of these species are discovered during the pre-activity surveys conducted under MM 4.4-15, the avoidance buffers outlined below ~~should~~ shall be established. No work

would occur within these buffers unless the biologist approves and monitors the activity as outlined further below.

Burrowing Owl (active burrows)

a. Non-breeding season: September 1 – January 31 – 160 feet
b. Breeding season: February 1 – August 31 – 250 feet

…

American Badger/~~SJKF~~ San Joaquin Kit Fox

a. Potential or Atypical den – 50 feet
b. Known den – 100 feet
c. Natal or pupping den – 500 feet, unless otherwise specified by ~~CDFW~~ California Department of Fish and Wildlife.

In determining whether activity could occur within these buffers, the biological monitor would take into account the following:

a. Noise level and duration. The noise level and duration of activities would be considered. Loud (e.g. greater than 80 decibels) and sustained (e.g. longer than one hour) activities would be disallowed within the buffer setbacks. Activities with shorter durations and/or lower noise levels may be considered with continual observation of the den by the monitor and work stoppage if the biologist detects evidence of disturbance.

b. Level of disturbance typically experienced in the location of the den prior to construction. Some areas of the Project (e.g. existing roads or agricultural areas) have been historically subject to human disturbance and dens near these areas are assumed to be accustomed to those previous levels of disturbance. If construction noise and duration are similar to disturbances that would have occurred in the area prior to construction (e.g. vehicular traffic on an existing road), those activities could continue with ongoing monitoring of the den by a biological monitor.

c. If construction activities have begun within 100 feet of a potential or atypical den that was determined during pre-construction activities to be inactive when construction began and the den becomes active during construction (i.e. becomes a "known" den), those activities would be allowed to continue at the same intensity as occurred when the den became active. A biological monitor would maintain continual watch on the den while construction activities are conducted within the buffer described above.

In no case would construction activities, regardless of noise and duration, occur closer than 50 feet from a known or potential/atypical den or 500 feet from a natal/pupping den unless approved by California Department of Fish and Wildlife or United States Fish and Wildlife Service. Any evidence that the construction activities were causing negative changes in behavior patterns would cause the biologist to disallow those activities inside the buffer.

San Joaquin Kit Fox must be allowed to disperse from their dens and from active construction activities. The Project will be designed – or construction will be phased – such that known dens are afforded a dispersal corridor consistent with the work restriction distances noted above. For example, if a new natal/pupping den is identified within the

project area after construction has begun and would otherwise be surrounded by construction activity, a 500-foot dispersal corridor would be designated within which no active construction activity could take place and which would remain free from equipment that would bar passage of San Joaquin Kit Fox. The corridor could be modified as construction activities are completed in other areas adjacent to the den so long as at all times a non-obstructed no-work dispersal corridor is provided.

If take of San Joaquin Kit Fox cannot be avoided, the project proponent shall confer with California Department of Fish and Wildlife on the need for take authorization through the acquisition of an incidental take permit, pursuant to Fish and Game Code section 2081 subdivision (b).

**MM 4.4-7**: **Burrowing Owl, American Badger, and San Joaquin Kit Fox ~~SJKF~~ Detection.** Within 14 days of the start of project ground-disturbing activities, a pre-activity survey should be conducted by a qualified biologist knowledgeable in the identification of these species. If, during construction activities, a live burrowing owl, American badger, or San Joaquin Kit Fox ~~SJKF~~ is encountered, all construction activity should stop in the affected area until the animal leaves of its own volition. The special-status species should be avoided by construction activities and construction workers and allowed to leave the project site without harassment.

**MM 4.4-8:** **Burrowing Owl, American Badger, and San Joaquin Kit Fox ~~SJKF~~ Avoidance.** A qualified biologist should remain on-call throughout the construction phase in the event that a burrowing owl, American badger, or San Joaquin Kit Fox ~~SJKF~~ occurs on the site during construction. If one of these species occurs on-site, the biologist should be contacted immediately to determine whether biological monitoring or the implementation of avoidance buffers may be warranted.

**MM 4.4-9:** **Standard Avoidance and Minimization Measures for the protection of San Joaquin Kit Fox ~~SJKF~~.** The following avoidance and minimization measures should be implemented during all phases of the project to reduce the potential for impact from the project. They are modified from the *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox ~~SJKF~~ Prior to or During Ground Disturbance* (United States Fish and Wildlife Service ~~USFWS~~ 2011, Appendix E).

a. All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction or project site.

b. Construction-related vehicle traffic shall be restricted to established roads and predetermined ingress and egress corridors, staging, and parking areas. Vehicle speeds shall not exceed 20 miles per hour (mph) within the project site.

c. To prevent inadvertent entrapment of kit fox or other animals during construction, the contractor shall cover all excavated, steep-walled holes or trenches more than two feet deep at the close of each workday with plywood or similar materials. If holes or trenches cannot be covered, one or more escape ramps constructed of earthen fill or

wooden planks shall be installed in the trench. Before such holes or trenches are filled, the contractor shall thoroughly inspect them for entrapped animals. All construction-related pipes, culverts, or similar structures with a diameter of four-inches or greater that are stored on the project site shall be thoroughly inspected for wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in anyway. If at any time an entrapped or injured kit fox is discovered, work in the immediate area shall be temporarily halted and United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~ shall be consulted.

d. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~ have been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.

e. No pets, such as dogs or cats, shall be permitted on the project sites to prevent harassment, mortality of kit foxes, or destruction of dens.

f. Use of anti-coagulant rodenticides and herbicides in project sites shall be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~. If rodent control must be conducted, zinc phosphide shall be used because of the proven lower risk to kit foxes.

g. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative shall be identified during the employee education program and their name and telephone number shall be provided to the United States Fish and Wildlife Service ~~USFWS~~.

h. The Sacramento Fish and Wildlife Office of United States Fish and Wildlife Service ~~USFWS~~ and California Department of Fish and Wildlife ~~CDFW~~ shall be notified in writing within three working days of the accidental death or injury to a San Joaquin Kit Fox ~~SJKF~~ during project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The United States Fish and Wildlife Service ~~USFWS~~ contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The California Department of Fish and Wildlife ~~CDFW~~ contact can be reached at (559) 243-4014 and R4CESA@wildlifeca.gov.

i. All sightings of the SJKF shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed shall also be provided to the Service at the address below.

j. Any project-related information required by the United States Fish and Wildlife Service ~~USFWS~~ or questions concerning the above conditions, or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at: Endangered Species Division, 2800 Cottage Way, Suite W 2605, Sacramento, California 95825-1846, phone: (916) 414-6620 or (916) 414-6600.

**MM 4.4-10** **Pre-activity Surveys for Nesting Birds.** If project construction activities will be initiated during the nesting season (February 1 to September 15), a pre-activity nesting bird survey should be conducted within 14 days prior to the start of construction. The surveys should encompass the project site and accessible or land visible from accessible areas within a 250-foot buffer for songbirds and a 500-foot buffer for raptors. The surveys may be phased with construction of the project. The surveys shall also evaluate presence/absence of tricolored blackbird nesting colonies in proximity to project activities and to evaluate whether there is a potential for project-related impacts. If no active nests are found, no further action is required. However, existing nests may become active and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress. Surveys for burrowing owl will follow California Department of Fish and Wildlife ~~CDFW~~ protocol.

…

If an active tricolored blackbird nesting colony is found during preconstruction surveys, a no-disturbance buffer will be established in accordance with California Department of Fish and Wildlife ~~CDFW~~'s "Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agriculture Fields in 2015" (Appendix D1). This buffer will depend on the nature of the activity being conducted near the colony. For disturbances that are short in duration a 60-foot buffer would be appropriate. More intensive construction activities may require a buffer of up to 300 feet at the discretion of the biological monitor. The buffer will remain in place until the breeding season has ended or until a qualified biologist has determined that nesting has ceased, the birds have fledged, and are no longer reliant upon the colony or parental care for survival.

**MM 4.4-12:** **Swainson's Hawk Nest Avoidance.** No mature trees that could be used by nesting Swainson's hawk will be removed during construction of the project. If an active Swainson's hawk nest is discovered at any time within 0.5 miles of active construction, a qualified biologist should complete an assessment of the potential for current construction activities to impact the nest. The assessment would consider the type of construction activities (e.g. noise levels and duration), the location of construction relative to the nest and pre-existing disturbance levels (e.g. construction activities in historically agricultural land versus activities in non-agricultural land), the visibility of construction activities from the nest location (e.g. topography or vegetation that could block line-of-sight to the nest), the number of construction personnel required to perform activities within the setback, and other existing disturbances in the area that are not related to construction activities of this

project. Based on this assessment, the biologist will determine if construction activities can proceed, and the level of nest monitoring required. When conducting the assessment, the biologist will consider the following levels of construction activity, with higher levels of activity requiring greater caution in determining setbacks:

a. Light construction activity such as fence installation and limited vehicle access. Noise levels generated by these construction activities would likely be similar to existing ambient noise levels in closer proximity to the occupied nests.
b. Moderate and/or isolated construction activity such as grading and construction of substation, substation-access road, inverter skids, and manual installation of solar panels. Noise levels generated by these construction activities would likely be similar to existing ambient noise levels beyond a moderate distance from the occupied nests.
c. Heavy construction activity across a large area of the Project and/or using louder equipment such as pile drivers, concrete saws, or jackhammers. Noise levels for this type of activity will depend on location of the activities relative to the nest and allowing these activities within the 0.5-mile setback would require coordination with CDFW.

In the event the assessment determines that construction activities could occur closer than 0.5-miles to an active nest, in no event would ~~C~~construction activities ~~should not~~ occur within 500 feet of an active nest without approval from California Department of Fish and Wildlife ~~but depending upon conditions at the site this distance may be reduced~~. Full-time monitoring to evaluate the effects of construction activities on nesting Swainson's hawks ~~may~~ would be required. The qualified biologist ~~should~~ shall have the authority to stop work if it is determined that project construction is disturbing ~~the~~ nesting activities. These buffers may need to increase depending on the sensitivity of the nesting Swainson's hawk to disturbances and at the discretion of the qualified biologist. No avoidance would be needed if construction occurs near a known Swainson's hawk nest outside of the Swainson's hawk nesting season. In the event take cannot be avoided, the proponent shall confer with CDFW on the need for an incidental take permit.

**MM 4.4-15:** **Preconstruction Clearance Survey.** Within 14 days prior to the start of ground disturbance activities, a pre-activity survey should be conducted by a qualified biologist knowledgeable in the identification of all special-status plant and wildlife species on native habitat subject to disturbance. All suitable burrows that could support Blunt-Nosed Leopard Lizard ~~BNLL~~, Tipton kangaroo rat, Tulare grasshopper mouse, or other special-status wildlife species will be avoided during construction in accordance with MM 4.4-4 and MM 4.4-5. Consultation with the United States Fish and Wildlife Service ~~USFWS and CDFW~~ California Department of Fish and Wildlife may be required if listed or fully protected species are detected during the survey.

**MM 4.4-18** **On-Site Biological Monitoring**. During construction of all portions of the project~~(APNs 295-130-57, 295-100-19, 295-130-48, 295-130-51, 295-130-21, 295-130-26, 295-130-27, 295-120-15, and 295-130-81)~~, including the portions of the gen-tie line that occur within native habitat (Valley Sink Scrub), a biological monitor familiar with the biology and natural history of the special-status species potentially present at the Project with halt-work

authority will be present to observe activities. During construction, the qualified biologist will have the authority to order a halt to construction activities in the following instances: (1) a biological monitor observes activities that may result in mortality or harm to a listed or fully protected species (BNLL), (2) a biological monitor observes any of the mitigation and avoidance measures are not being implemented properly, 3) special-status species are detected in or immediately adjacent to the Project site and may be harmed if construction activity is permitted to continue, or (4) if warranted to allow special-status species to traverse to and from burrows. Construction will resume when either the listed species moves out of harm's way on its own or the avoidance and minimization measures that are not being implemented properly are rectified. The biological monitor shall take steps in coordination with construction personnel to allow any special-status species observed to leave the site on their own accord and biological monitors will have the ability to halt work in areas of the Project to ensure safe dispersal.

**MM 4.4-21: Wetland and Waters Delineation**

a. Prior to issuance of any grading or building permit, the project proponent/operator shall conduct a preliminary assessment of the identify aquatic features on the project site to determine which of these features could potentially be under the jurisdiction of the ~~USACE~~ United States Army Corps of Engineers, ~~CDFW~~ California Department of Fish and Wildlife, and/or ~~RWQCB~~ Regional Water Quality Control Board. The report will include a discussion of the methods and results, including maps, of the assessment of all potentially jurisdictional aquatic features at the project site and will be submitted to the County.

b. If the proponent determines that the project could directly or indirectly impact aquatic resources potentially under the jurisdiction of the ~~USACE~~ United States Army Corps of Engineers, ~~CDFW~~ California Department of Fish and Wildlife, and/or ~~RWQCB~~ Regional Water Quality Control Board, a formal aquatic resource delineation of these areas will be performed pursuant to accepted agency delineation protocols by a qualified professional to determine the extent of agency jurisdiction and the extent of potential impacts to agency jurisdiction.

c. If it is determined that aquatic features under agency jurisdiction will be impacted, the appropriate permits and authorizations from the regulating agencies shall be obtained prior to disturbance to jurisdictional features. The permit/authorization process typically includes the submittal of a detailed jurisdictional delineation report, measures to avoid, minimize, and/or mitigate for impacts, and required applications to each resource agency and consultations with agency staff.

d. As part of the permit/authorization application process, compensatory mitigation may be required by the agencies to offset the loss of aquatic resources. If so, and as part of the permit application process, a qualified professional shall draft a mitigation and monitoring plan to address implementation and monitoring requirements expected to be included under the permit to ensure that the project would result in no net loss of habitat functions and values. The plan shall contain, at a minimum, mitigation goals and objectives, mitigation location, a discussion of actions to be implemented to mitigate the impact, monitoring methods and

performance criteria, extent of monitoring to be conducted, actions to be taken in the event that the mitigation is not successful, and reporting requirements. The plan shall be approved by the appropriate regulating agencies and compensatory mitigation shall take place either on site or at an appropriate off-site location.

e. Any material/spoils generated from project activities containing hazardous materials will be located away from jurisdictional areas or special-status habitat and protected from storm water run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate.

f. Equipment containing hazardous liquid materials will be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and at least 50 feet outside the delineated boundary of jurisdictional water features.

g. Any spillage of material will be stopped if it can be done safely. The contaminated area will be cleaned, and any contaminated materials properly disposed. For all spills, the project foreman or designated environmental representative will be notified.

**MM 4.4-22:** **Fence Design and Site Permeability.** Fences installed on the perimeter of the solar project site will be designed to allow for passage of ~~SJKF~~ San Joaquin Kit Fox, their prey and other listed wildlife, while impeding the passage of larger predators of kit foxes, such as coyotes and larger domestic dogs. Perimeter fencing shall consist of wire fencing, with openings from 3 to 7 inches square and will be installed inverted, with the larger openings at the bottom to allow ~~SJKF~~ San Joaquin Kit Fox to pass through. Chain link fencing may also be used if it is installed with a 4-6-inch gap from the bottom of the fencing material shall be knuckled back to from a smooth edge. Alternate designs may also be constructed with prior written approval from ~~CDFW~~ California Department of Fish and Wildlife and ~~USFWS~~ United States Fish and Wildlife Service. In addition, low vegetation will be maintained within the solar arrays so that wildlife such as ~~SJKF~~ San Joaquin Kit Fox can utilize the project area during operation.

### Chapter 4.7, Geology and Soils; Section 4.7.4, Impacts and Mitigation Measures, Page 4.7-16:

## Mitigation Measures

**MM 4.7-3:** Prior to the issuance of building or grading permits…

a. The geotechnical study must be signed by a California registered and licensed professional geotechnical engineer or engineering geologist and must include, but not be limited to, the following:

~~i.~~ 1. Location of fault traces and potential for surface rupture and ground shaking potential;
~~ii.~~ 2. Maximum considered earthquake and associated ground acceleration for design;
~~iii.~~ 3. Potential for seismically induced liquefaction, landslides, differential settlement, and unstable soils;
~~iv.~~ 4. Stability of any existing or proposed cut-and-fill slopes;
~~v.~~ 5. Collapsible or expansive soils;
~~vi.~~ 6. Foundation material type;

~~vii.~~7. Potential for wind erosion, water erosion, sedimentation, and flooding;

~~viii.~~8. Location and description of unprotected drainage that could be impacted by the proposed development; and,

~~ix.~~9. ~~–~~Recommendations for placement and design of facilities, foundations, and remediation of unstable ground.

**Chapter 4.7, Geology and Soils; Section 4.7.4, Impacts and Mitigation Measures, Page 4.7-18 to 4.4-19:**

## Mitigation Measures

**MM 4.7-4:** The construction contractor shall incorporate ~~BPMs~~ Best Management Practices consistent with the National Pollutant Discharge Elimination System Construction General Permit Program for all construction projects that would not retain all stormwater on site and the Kern County Grading Code. The project proponent shall prepare an Erosion and Sedimentation Control Plan and a Stormwater Pollution Prevention Plan ~~(SWPPP)~~. The ~~SWPPP~~ Stormwater Pollution Prevention Plan shall be prepared by a Qualified ~~SWPPP~~ Stormwater Pollution Prevention Plan Developer and submitted for review and approval by the applicable Regional Water Quality Control Board. The Stormwater Pollution Prevention Plan ~~BPMs~~ Best Management Practices shall include the following:

a. Scheduling to avoid ground disturbance during rain events to the maximum extent possible
b. Preservation of existing vegetation and topography to the maximum extent practicable
c. Stabilized construction entrances and exits
d. Erosion control (including all pertinent temporary erosion control practices as specified in Chapter 17.28.140 of the Kern County Grading Code), such as mulching, temporary drains and cullies, sandbag barrier, geotextiles and mats, silt fences, brush or rock filters, earth dikes, straw bale barriers, and sediment traps
e. Sediment control
f. Waste management
g. Good housekeeping
h. Post-construction site stabilization
i. Prior to initial construction mobilization, preconstruction surveys shall be performed, and sediment and erosion controls shall be installed in accordance with the approved ~~SWPPP~~ Stormwater Pollution Prevention Plan. A copy of the approved Stormwater Pollution Prevention Plan shall be submitted to the Kern County Planning and Natural Resources Department.

**Chapter 4.7, Geology and Soils; Section 4.7.4, Impacts and Mitigation Measures, Page 4.7-22:**

**MM 4.7-6:** The project proponent shall retain a qualified paleontologist, defined as a paleontologist meeting the requirements set forth in the Society for Vertebrate Paleontology's Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010), to carry out all mitigation measures related to paleontological resources. The qualified paleontologist and the lead archeologist may be the same individual.

a. Prior to the start of any ground-disturbing activities, the qualified paleontologist shall prepare a Paleontological Resources Awareness Training program for all construction personnel working on the project. A Paleontological Resources Awareness Training Guide approved by the qualified paleontologist shall be provided to all personnel. A copy of the Paleontological Resources Awareness Training Guide shall be submitted to the Kern County Planning and Natural Resources Department. The training guide may be presented in video form.

~~a~~ b. Paleontological Resources Awareness Training may be conducted in conjunction with the archaeological resources training required by Mitigation Measure (MM) 4.5-1.

~~b~~ c. The training shall include an overview of potential paleontological resources that could be encountered during ground-disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified paleontologist for further evaluation and action, as appropriate, and shall include penalties for unauthorized fossil collecting or intentional disturbance of paleontological resources.

~~c~~ d. The project operator shall ensure all new on-site construction personnel who have not participated in earlier Paleontological Resources Awareness Trainings shall meet the provisions specified above.

~~d~~ e. The Paleontological Resources Awareness Training Guides shall be kept available for all personnel to review and be familiar with, as necessary.

## Chapter 4.7, Geology and Soils; Section 4.7.4, Impacts and Mitigation Measures, Page 4.7-22 to 4.7-23:

**MM 4.7-7:** During construction, the qualified paleontologist or designated monitor shall monitor…

a. The duration and timing of monitoring shall be determined by the qualified paleontologist in consultation with the Kern County Planning and Natural Resources Department and shall be based on a review of geologic maps and grading plans.

~~i.~~ 1. During the course of monitoring, if the paleontologist can demonstrate, based on observations of subsurface conditions, that the level of monitoring could be reduced, the paleontologist, in consultation with the Kern County Planning and Natural Resources Department, may adjust the level of monitoring to circumstances, as warranted.

## Chapter 4.9, Hazards and Hazardous Materials; Section 4.9.4, Impacts and Mitigation Measures, Page 4.9-26 to 4.7-27:

**MM 4.9-3:** During project construction, operation, and decommissioning, the project proponent/operator shall continuously comply with the following:

a. The construction contractor or project personnel shall use herbicides that are recommended by the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service. Personnel applying herbicides shall have all appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use.

b. Herbicides shall be mixed and applied in conformance with the manufacturer's directions.

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.
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.
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.

A written record of all herbicide applications on the site, including dates and amounts shall be furnished to the Kern County Planning and Natural Resources Department.

**Chapter 4.10, Hydrology and Water Quality; Section 4.10.2, Environmental Setting, Page 4.10-1:**

## Climate

… Temperatures exceed 90°F approximately 110 days per year (Wheeler Ridge-Maricopa Water Storage District 2020). The majority of rainfall occurs November through April; average annual total precipitation is 5.3245 inches, observed from the closest weather station to the project site at the Tulefield Weather Station (WRCC 2019).

**Chapter 4.10, Hydrology and Water Quality; Section 4.10.4, Impacts and Mitigation Measures, Page 4.10-17 to 4.10-18:**

## Impact 4.10-2: The project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

## Construction

… During construction, water would be used for dust suppression on and along project roads, as required by site conditions. The amount of water used would vary based on site conditions and local rainfall, but in general, construction activities would require approximately ~~65~~ 425 acre-feet of water over an approximately ~~12~~ 18-month period.

## Operation

… The annual water consumption for project operations, including periodic PV module washing, is expected to be approximately ~~1~~ 2.5 AFY. Operational water supply would be sourced from the same groundwater wells identified for construction. Assuming a 12-hour operational day, the estimated water demand (~~1~~ 2.5 acre-foot) would require a pumping rate of approximately ~~1.2~~ 3.0 gallons per minute.

**Chapter 4.10, Hydrology and Water Quality; Section 4.10.4, Impacts and Mitigation Measures, Page 4.10-23:**

## Impact 4.10-8: The project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

…After the construction phase, annual water consumption for operations of the project, including periodic PV module washing, is expected to be approximately ~~1~~ 2.5 acre-foot per year.

**Chapter 4.10, Hydrology and Water Quality; Section 4.10.4, Impacts and Mitigation Measures, Page 4.10-24:**

### Cumulative Setting, Impacts, and Mitigation Measures

…Furthermore, long-term water demand for the project would be minimal (approximately ~~1~~ 2.5 acre-foot per year), with water requirements much lower than that associated with the historical agricultural activities at the site.

**Chapter 4.12, Mineral Resources; Section 4.12.4, Impacts and Mitigation Measures, Page 4.12-8:**

**MM. 4.12-1:** Prior to issuance of any grading or building permit, excluding the generation tie line in the conservation area (developer protected areas), the applicant shall provide the following documentation regarding the mineral rights holders who also have right of surface access and drilling areas:

**Chapter 4.13, Noise; Section 4.13.4, Impacts and Mitigation Measures, Page 4.13-26 to 4.13-27:**

**MM 4.13-1:** The following measures are to be implemented to further reduce short-term noise levels associated with project construction and decommissioning:

a. 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. ~~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.~~

## Chapter 4.14, Public Services; Section 4.14.4, Impacts and Mitigation Measures, Page 4.14-15 to 4.14-16:

**MM 4.14-2:** The following Cumulative Impact Charge (CIC) shall be implemented as payment on approved Conditional Use Permit acreage...

2. The map for either the total project or a phase shall calculate the CIC net acreage as follows:
   ~~a.~~ A. Total gross acreage (Phase).
   ~~b.~~ B. Total acres for operations and maintenance building permanent accessory improvements.
   ~~c.~~ C. Total acres for energy storage structure and permanent accessory improvements.
   ~~d.~~ D. Total acres of recorded easements or on-site conservation lands.

## Chapter 10, Bibliography, Page 10-1 to 10-13:

### Executive Summary

County of Kern. 2009. *Kern County General Plan*. September 22, 2009. https://psbweb.co.kern.ca.us/planning/pdfs/kcgp/KCGP_Complete.pdf.

### Introduction

Kern Council of Governments (COG). 2018. 2018 Regional Transportation Plan and Sustainable Communities Strategy. August 2018. https://www.kerncog.org/wp-content/uploads/2018/10/2018_RTP.pdf.

### Project Description

KCFD. 2020. "About Us." Accessed March 27, 2021. https://www.kerncountyfire.org/en/about-us.html.

### Agricultural and Forestry Resources

County of Kern. 2021. Kern County GIS. Accessed September 2021. https://maps.kerncounty.com/H5/index.html?viewer=KCPublic

DOC. 2020a. Williamson Act Program Overview. Accessed September 2021. https://www.conservation.ca.gov/dlrp/wa/Pages/wa_overview.aspx

DOC. 2020b. Williams Act Contract Removal. September 2021 https://www.conservation.ca.gov/dlrp/wa/Pages/removing_contracts.aspx

Kern County. 2021. Kern County GIS. Accessed September 2021. https://maps.kerncounty.com/H5/index.html?viewer=KCPublic

~~KEDC (~~Kern County Economic Development Corporation~~)~~. 2021. *2021 Kern County Market Overview and Member Directory.*

Kern County Department of Agriculture and Measurement Standards. 2020. Kern County Annual Crop & Livestock Report. Accessed October 4, 2021. http://www.kernag.com/caap/crop-reports/crop20_29/crop2020.pdf.

Kern County General Plans and Housing Element Annual Progress Report, 2019.

NRCS (Natural Resources Conservation Service). 2019. Farmland Protection Policy Act. Accessed May 2021. https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/

## Air Quality

CAPCOA 2013 CalEEMod User's Guide. July 2013. Accessed May 2021. https://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=2

CARB 2019a-d. Common Air Pollutants. Accessed 2021. https://ww2.arb.ca.gov/resources/common-air-pollutants

CDC. 2020b. "How COVID-19 Spreads." Accessed May 2021. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html.

CDCDMG (California Department of Conservation, Division of Mines and Geology). 2000. A General Location Guide for Ultramafic Rocks in California. August 2000. https://ww2.arb.ca.gov/sites/default/files/classic/toxics/asbestos/ofr_2000-019.pdf

CDIR & CDPH (California Department of Industrial Relations & California Department of Public Health). 2013. *Preventing Work- Related Coccidiodomycosis (Valley Fever).* June 2013. http://publichealth.lacounty.gov/acd/docs/ValleyFeverPreventionforWorkFlyer.pdf

California Department of Public Health. 2020. COVID-19 Race and Ethnicity Data. Accessed September 2021. https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Race-Ethnicity.aspx

Kern COG (Council of Governments). 2016. *Conformity Determination for the Kern Council of Governments (KCOG) 2017 Federal Transportation Improvement Program (FTIP) and 2014 Regional Transportation Plan (RTP) Amendment #1*, December 16. Accessed May 2021. https://www.kerncog.org/wp-content/uploads/2009/10/conformity_2017_FTIP_RTP_a1.pdf.

Kern County Planning Department. 2006. Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports. December 1, 2006. http://www.kernair.org/Documents/CEQA/AirQualityAssessmentPreparationGuidelines.pdf.

NRDC (National Resource Defense Council).2014. Drilling in California: Who's at risk?. October 2014. https://www.nrdc.org/sites/default/files/california-fracking-risks-report.pdf

OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*. February 2015. https://www.mdaqmd.ca.gov/home/showpublisheddocument/6216/636820254852670000

OEHHA – ALA (Office of Environmental Health Hazards Assessment and American Lung Association). 2001. *Health Effects of Diesel Exhaust*. May 21. Accessed May 2021. https://oehha.ca.gov/air/health-effects-diesel-exhaust.

Peters et al. 2001. Increased particulate air pollution and the triggering of myocardial infarction. Circulation, 103(23), 2810-2815. 2001

Pope III, C. A., & Dockery, D. W. 2006. Health effects of fine particulate air pollution: lines that connect. Journal of the air & waste management association, 56(6), 709-742.

SJVAPCD 2007. SJVAB Emissions Inventory to Demonstrating Attainment of Federal 1-hour O3 Standards, SJVAPCD. September 2007.

US EPA (U.S. Environmental Protection Agency). 2000. *Vinyl Chloride.* January 2000 https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/vinyl-chloride.pdf

USEPA (U.S. Environmental Protection Agency). 2006. *AP 42, Fifth Edition, Volume I, Chapter 13: Miscellaneous Sources*. November 2006. https://www.epa.gov/sites/default/files/2020-10/documents/13.2.2_unpaved_roads.pdf

## Biological Resources

CDFW. 2021. Natural Communities. Available at: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#natural%20communities%20lists . Accessed September 2021.

CNDDB (California Natural Diversity Database). July 2021. Special Vascular Plants, Bryophytes, and Lichens List. California Department of Fish and Wildlife. Sacramento, CA

Estep, J.A. 2013. Swainson's hawk and other raptor foraging use of solar array fields within an agricultural landscape in Sacramento County. Prepared by Estep Environmental Consulting for Recurrent Energy, San Francisco, CA

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, 2nd Ed. California Native Plant Society, Sacramento.

USFWS 2018. Guidance on the recent M-Opinion affecting the Bird Treaty Act. April 2018

## ~~Cultural Resources~~

~~ASM Affiliates Inc. 2015. *Cultural Resources Technical Report: Kern County Oil and Gas Study*. On file, SSJVIC, CSUB.~~

~~Boyd, W.H. 1997. *Lower Kern River Country 1850–1950: Wilderness to Empire*. Kings River Press, Lemoore.~~

~~Cook, S.F. 1978. "Historical Demography." In *Handbook of North American Indians*, Volume 8, California, R. F. Heizer, editor, pp. 91–98. Washington, D.C., Smithsonian Institute.~~

~~County of Kern. 2009. *Kern County General Plan*. September 22, 2009. https://psbweb.co.kern.ca.us/planning/pdfs/kcgp/KCGP_Complete.pdf.~~

~~Kroeber, A.L. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78. Washington, D.C.~~

~~Latta, F.F. 1977. *Handbook of the Yokuts Indians*. Bear State Books, Santa Cruz.~~

~~Morgan, W.A. 1914. *History of Kern County, California with Biographical Sketches*. Los Angeles: Historic Record Company.~~

~~O'Neill, P. 2018. *Spirit Fishing in the Land of the Dead: Charmstones in Prehistoric California*. Paper presented at the American Anthropological Association meetings.~~

Pacific Legacy. 2006. *Southern San Joaquin Valley Oil Fields Comprehensive Study*. Manuscript on file, BLM Bakersfield office.

Sharp, J. 2000. "Charmstones: A Summary of the Ethnographic Record." Proceedings of the Society for California Archaeology 13:233–243. https://www.scahome.org/publications/proceedings/Proceedings.13Sharp.pdf.

Sutton, M.Q. 1996. "A Charmstone Cache from the Southern San Joaquin Valley." *Pacific Coast Archaeological Society Quarterly*, 32(4), pp.41–54.

Van Bueren, T., and R. Wiberg. 2011. "Putting Central California Charmstones in Context." *California Archaeology* 3:199–248.

## Energy

CARB (California Air Resources Board). 2011. "Facts About the Advanced Clean Cars Program." November 9, 2011. Accessed June 2021. http://www.arb.ca.gov/msprog/zevprog/factsheets/advanced_clean_cars_eng.pdf.

CARB. 2014. "Truck and Bus Regulation, On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation." August 29, 2014. Accessed June 2021. http://www.arb.ca.gov/msprog/onrdiesel/documents/FSRegSum.pdf.

CARB (California Air Resources Board). 2021. "About the Advanced Clean Cars Program." September 17, 2021. Accessed September 2021. http://www.arb.ca.gov/msprog/zevprog/factsheets/advanced_clean_cars_eng.pdf.

CARB. 2020. "Truck and Bus Regulation, On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation." February 2020. Accessed June 2021. https://ww2.arb.ca.gov/sites/default/files/truckstop/pdfs/truck_bus_booklet.pdf

CEC (California Energy Commission). 2016a. *2016–2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program*, May 2016. Available at http://www.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf.

CEC. 2016b. 2015 Integrated Energy Policy Report. June 2016. Available at https://www.californiageo.org/wp-*content*/uploads/CEC-2015-IEPR.pdf

CEC. 2018b. "Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation" May 2018. Accessed September 2021. https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first

CNRA (California Natural Resources Agency). 2018. 2018 CEQA Guidelines. December 2018. https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf

Kern Council of Governments. 2018. *2018 Regional Transportation Plan and Sustainable Communities Strategy*. August 2018. https://www.kerncog.org/wp-content/uploads/2018/10/2018_RTP.pdf.

NREL (National Renewable Energy Laboratory). 2021. PVWatts Calculator. Accessed June 2021. https://pvwatts.nrel.gov/.

## Geology and Soils

~~Bartow, J.A. 1991. *The Cenozoic Evolution of the San Joaquin Valley, California*. USGS Professional Paper 1501.~~

~~Borchers, J.W., and M. Carpenter. 2014. *Land Subsidence from Groundwater Use in California*. California Water Foundation Summary Report. April 2014.~~

~~Bryant, William A., and Earl W. Hart. 2007. Special Publication 42: Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps, Interim Revision 2007. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sp/Sp42.pdf.~~

~~CDM (California Division of Mines). 1952. Arvin-Tehachapi Earthquake. Mineral Information Service Vol. 5, No. 9, September 1, 1952.~~

~~CDMG (California Department of Conservation, Division of Mines and Geology). 1984. *Fault Evaluation Report FER-150, Wheeler Ridge and Pleito Fault System*. March 21, 1984.~~

~~DWR (California Department of Water Resources). 2018a. Groundwater Level Data. http://wdl.water.ca.gov/gw/.~~

~~DWR. 2018b. Groundwater Information Center. http://gis.water.ca.gov/app/groundwater/.~~

~~Farr, Tom G., Cathleen E. Jones, and Zhen Liu. 2017. *Progress Report: Subsidence in California, March 2015–September 2016*.~~

~~FEMA (Federal Emergency Management Agency). 2018. FEMA Flood Hazard Layer, 06029C_NFHL. August 3, 2018.~~

~~USDA (United States Department of Agriculture). 2020. Natural Resources Conservation Service, Soil Survey Geographic (SSURGO) database for Kern County, California, Southeastern Part, California. http://SoilDataMart.nrcs.usda.gov/.~~

~~USGS (U.S. Geological Survey and California Geological Survey). 2010. Quaternary Fault and Fold Database for the United States. "2010 Fault Activity Map of California." https://earthquake.usgs.gov/hazards/qfaults/ and http://maps.conservation.ca.gov/cgs/fam/.~~

## Greenhouse Gas Emissions

CAPCOA (California Air Pollution Control Officers Association). 2008. CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. January 2008. http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf

CARB (California Air Resources Board). 2008. Climate Change Scoping Plan. December 2008. https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/document/adopted_scoping_plan.Pdf

CARB. 2014b. *First Update to the Climate Change Scoping Plan Building on the Framework Pursuant to AB 32 The California Global Warming Solutions Act of 2006*. Available at: https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

CARB, 2017. *California's 2017 Climate Change Scoping Plan: The strategy for achieving California's 2030 greenhouse gas target*. November 2017. Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017_es.pdf. Accessed August 2019.

CARB. 2020. California Greenhouse Gas Emissions and 2000 to 2018, Tends of Emissions and Other Indicators. June 2020. Accessed May 2021.

CNRA. 2009. Final Statement of Reasons for Regulatory Action. December 2009. https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/Final_Statement_of_Reasons.pdf

Center for Climate and Energy Solutions, 2012. Regulation of Greenhouse Gases Under the Clean Air Act. *December* 2012. https://www.c2es.org/wp-content/uploads/2010/03/sequence-events-leading-regulation-greenhouse-gases-through-epa.pdf

CPUC. 2013. California's Zero Net Energy Policies and Initiatives. September 18, 2013. http://annualmeeting.naseo.org/Data/Sites/2/presentations/Fogel-Getting-to-ZNE-CA-Experience.pdf.

Kern COG. 2018. *2018 Regional Transportation Plan and Sustainable Communities Strategy*. August 2018. https://www.kerncog.org/wp-content/uploads/2018/10/2018_RTP.pdf.

NHTSA. 2020. SAFE: The Safer Affordable Fuel-Efficient "SAFE" Vehicles Rule. March 31, 2020. https://www.nhtsa.gov/corporate-average-fuel-economy/safe.

SJVAPCD. 2009a. Final Staff Report Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act. December 17, 2017. http://www.valleyair.org/Programs/CCAP/12-17-09/1%20CCAP%20-%20FINAL%20CEQA%20GHG%20Staff%20Report%20-%20Dec%2017%202009.pdf

SJVAPCD. 2009b. Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency. December 17, 2009. https://www.valleyair.org/Programs/CCAP/12-17-09/2%20CCAP%20-%20FINAL%20District%20Policy%20CEQA%20GHG%20-%20Dec%2017%202009.pdf

SJVAPCD. 2015. *Guidance for Assessing the Mitigation Air Quality Impacts*. February 19, 2015. https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF.

US EPA. 2004. Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel. June 2004. https://www.govinfo.gov/content/pkg/FR-2004-06-29/pdf/04-11293.pdf

US EPA. 2010. Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule; Final Rule. June 2010. https://www.govinfo.gov/content/pkg/FR-2010-06-03/pdf/2010-11974.pdf

US EPA. 2011. Fact Sheet: Mandatory Reporting of Greenhouse Gases (40 CFR part 98). June 2011. https://www.epa.gov/sites/default/files/2015-07/documents/part98factsheet.pdf

US EPA. 2016. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990- 2014.* April 2016. https://www.epa.gov/sites/default/files/2017-04/documents/us-ghg-inventory-2016-main-text.pdf

USEPA 2018. Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022–2025 Light-Duty Vehicles. April 2018. https://www.govinfo.gov/content/pkg/FR-2018-04-13/pdf/2018-07364.pdf

USEPA and NHTSA. 2019. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. September 2019. https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf

### Hazards and Hazardous Materials

Edalat and Stephen. 2017. Remote Sensing of the Environmental Impacts of Utility-Scale Solar Energy Plants. August 2017. https://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=4078&context=thesesdissertations

Fthenakis and Yu. 2013. Analysis of the Potential for a Heat Island Effect in Large Solar Farms. 2013. http://clca.columbia.edu/13_39th%20IEEE%20PVSC_%20VMF_YY_Heat%20Island%20Effect.pdf

~~KTA Associates. 2019a. *Phase I Environmental Site Assessment for Sandrini Sol Solar Site located in Central Californ*ia. February 16, 2019.~~

~~KTA Associates. 2019b. *Phase I Environmental Site Assessment for Sandrini Sol Solar Site located in Central California*. September 12, 2019.~~

~~KTA Associates. 2020. *Phase I Environmental Site Assessment for Sandrini Sol Solar Site located in Central California*. October 7, 2020.~~

P. Sinha et al. 2018. "Developing Ecological Life Cycle Impact Assessment Characterization Factors for CdTe," 2018.

T. Sinha et al. 2019 “A review on the improvement in performance of CdTe/CdS thin-film solar cells through optimization of structural parameters” May 2019.

### Hydrology and Water Quality

Western Regional Climate Center (WRCC), 2019. Mojave, California (044278), Period of Record Monthly Climate Summary. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5756; accessed on August 16, 2019.

### Noise

County of Kern. 2012. *Airport Land Use Compatibility Plan.* November 2012. https://psbweb.co.kern.ca.us/planning/pdfs/ALUCP2012.pdf

USEPA. 1974. *Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety*. March 1974. https://www.nrc.gov/docs/ML1224/ML12241A393.pdf

AECOM. 2012. Solar Panel Tracker and Dryer Noise Measurements. February 1, 2012

### Utilities and Service Systems

County of Kern. 2015. Kern County Integrated Waste Management Plan Source Reduction and Recycling Element. https://hfh-consultants.com/wp-content/uploads/2019/07/CIWMP-Source-Reduction-and-Recycling-Element_2015-Amendment.pdf.

**Wildlife**

CAL FIRE. 2020. Law Enforcement Program. https://www.fire.ca.gov/programs/law-enforcement-civil-cost-recovery/

# 7.3 Response to Comments

A list of agencies and interested parties who have commented on the Draft EIR is provided below. A copy of each numbered comment letter and a lettered response to each comment are provided following this list.

## State Agencies

Letter 1 – California Department of Conservation, Division of Land Resource Protection (October 25, 2021)

Letter 2 – California Department of Fish and Wildlife (CDFW) (November 2, 2021)

## Local Agencies

Letter 3 – Kern County Public Works Department, Floodplain Management Section (September 23, 2021)

Letter 4 – Kern County Fire Department (October 15, 2021)

Letter 5 – Kern County Public Health Services Department, Environmental Health Division (October 22, 2021)

Letter 6 – Kern County Public Works Department, Building and Development – Development Review (November 1, 2021)

Comment Letter 1

California
Department of Conservation

Gavin Newsom, Governor
David Shabazian, Director

OCTOBER 25, 2021

VIA EMAIL: JENSENJ@KERNCOUNTY.COM
Kern County Planning and Natural Resources Department
ATTN: Johnathan Jensen, Planner II
2700 "M" Street, Suite 100
Bakersfield, CA 93301

Dear Mr. Jensen:

DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE SANDRINI SOLAR PROJECT, SCH# 2021040761

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Draft Environmental Impact Report for the Sandrini Solar Project (Project). The Division monitors farmland conversion on a statewide basis, provides technical assistance regarding the Williamson Act, and administers various agricultural land conservation programs. We offer the following comments and recommendations with respect to the proposed project's potential impacts on agricultural land and resources. 1-A

Project Description

The project includes a request for land use entitlements necessary to facilitate the construction and operation of a solar photovoltaic power generating facility and associated facilities that would produce up to 300 megawatt (MW) alternating current (AC) utility-scale solar power with an up to 100 MW of energy storage capacity in the Valley Region of unincorporated Kern County. The proposed project consists of five separate sites (Sites 1 through 5), located on 33 parcels of privately-owned land, totaling approximately 3,469.87 acres; however, it is anticipated that approximately 2,472.89 acres would be utilized (developed) for the construction of the solar panels and permanent facilities and the remaining 996.98 acres would be restricted to use for conservation of habitat (on-site conservation land) and could not be developed.

The facility would convert approximately 34 acres of Prime Farmland, 1,198 acres of Farmland of Statewide Importance and 146 acres of Unique Farmland, as designated by the Department of Conservation's Farmland Mapping and Monitoring Program.

The project site contains approximately 1,403.94 acres subject to active Williamson Act Land Use contracts, all of which have documented petitions filed for the non-renewal. 1-B

Department Comments

The conversion of agricultural land represents a permanent reduction and significant impact to California's agricultural land resources. CEQA requires that all feasible and reasonable mitigation be reviewed and applied to projects. Under CEQA, a lead agency should not approve a project if there are feasible alternatives or feasible mitigation measures available that would lessen the significant effects of the project.

All mitigation measures that are potentially feasible should be included in the project's environmental review. A measure brought to the attention of the lead agency should not be left out unless it is infeasible based on its elements.

Consistent with CEQA Guidelines, the Department recommends the County consider agricultural conservation easements, among other measures, as potential mitigation. (*See* Cal. Code Regs., tit. 14, § 15370 [mitigation includes "compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements."])

1-C

Mitigation through agricultural easements can take at least two forms: the outright purchase of easements or the donation of mitigation fees to a local, regional, or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands should not be limited strictly to lands within the project's surrounding area.

1-D

A helpful source for regional and statewide agricultural mitigation banks is the California Council of Land Trusts. They provide helpful insight into farmland mitigation policies and implementation strategies, including a guidebook with model policies and a model local ordinance. The guidebook can be found at:

http://www.calandtrusts.org/resources/conserving-californias-harvest/

1-E

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered. Indeed, the recent judicial opinion in *King and Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814 ("*KG Farms*") holds that agricultural conservation easements on a 1 to 1 ratio are not alone sufficient to adequately mitigate a project's conversion of agricultural land. *KG Farms* does not stand for the proposition that agricultural conservation easements are irrelevant as mitigation. Rather, the holding suggests that to the extent they are considered, they may need to be applied at a greater than 1 to 1 ratio, or combined with other forms of mitigation (such as restoration of some land not currently used as farmland).

1-F

Conclusion

Prior to approval of the proposed project the Department recommends further discussion and consideration of the following issues:

- Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project.
- Proposed mitigation measures for all impacted agricultural lands within the proposed project area.
- The Project's compatibility with, and/or, potential contract resolutions for lands within agricultural preserves and/or enrolled in a Williamson Act contract.

1-G

Thank you for giving us the opportunity to comment on the Draft Environmental Impact Report for the Sandrini Solar Project. Please provide this Department with notices of any future hearing dates as well as any staff reports pertaining to this project. If you have any questions regarding our comments, please contact Farl Grundy, Associate Environmental Planner at (916) 617-0522 or via email at Farl.Grundy@conservation.ca.gov.

1-H

Sincerely,

Monique Wilber

Monique Wilber

Conservation Program Support Supervisor

## Response to Comment Letter 1: California Department of Conservation, Division of Land Resource Protection (October 25, 2021)

**1-A:** This is an introductory comment which states that the Department of Conservation's Division of Land Resource Protection (Division) has reviewed the Draft EIR for the proposed project. The comment states the Division monitors farmland conversion on a statewide basis, provides technical assistance regarding the Williamson Act, and administers various agricultural land conservation programs. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**1-B:** The comment provides a summary of the project description. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**1-C:** The comment states that, although conversion of agricultural land is often an unavoidable impact under CEQA, feasible alternatives and/or feasible mitigation measures must be considered. The comment states that under CEQA, a lead agency should not approve a project if there are feasible alternatives or feasible mitigation measures available that would lessen the significant effects of the project. The comment also states that all mitigation measures that are potentially feasible should be included in the project's environmental review, and that a measure brought to the attention of the lead agency should not be left out unless it is infeasible based on its elements.

In response, as discussed in Section 4.2, *Agricultural Resources*, of the Draft EIR, CEQA requires that all feasible and reasonable mitigation be reviewed and applied to projects. CEQA Section 15364 defines feasible to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." The standard of applicability also includes CEQA case law and determinations on the ability to impose specific mitigation on projects. Agricultural conservation easements are legally recorded deed restrictions that are placed on a specific property used for agricultural production. The goal of an agricultural conservation easement is to maintain agricultural land in active production by removing the development pressures from the land. Such an easement prohibits practices that would damage or interfere with the agricultural use of the land. Because the easement is a restriction on the deed of the property, the easement remains in effect even when the land changes ownership. While such voluntary easements are an important tool for land owners for tax purposes and land trust groups to encourage agricultural uses and protect land from urban encroachment, they are no longer considered mitigation under CEQA. The Fifth Appellate District's February 25, 2020 decision in King and Gardiner Farms, LLC et all v County of Kern et al (F077656 (Super Ct. Nos. BCV -15-101666, BCV-15-101679) determined that mitigation to require placing other lands at a 1:1 ratio or any other ratio under an agricultural easement does not mitigate for the loss of farmland as it does not create new farmland. Mitigation to require restoration of farmland for this project was considered and rejected as water is no longer assured for specific parcels of land and therefore, successful restoration of depleted lands and continued farming cannot be enforced by the county over the life of the project as required for all mitigation imposed on the project. The management of the project for biological protections and dust control will ensure that the project does not interfere with the use of the surrounding properties for agriculture uses and encourage the conversation of surrounding lands. All feasible and reasonable mitigation has been evaluated and no such mitigation has been identified to be imposed that has not been included in the Draft EIR.

The comment further states that consistent with CEQA Guidelines, the Department of Conservation recommends the County consider agricultural conservation easements, among other measures, as potential mitigation.

In response, please see response to comment 1-C. Additionally, based on the Court of Appeal's analysis in the Fifth Appellate District's February 25, 2020 decision in King and Gardiner Farms, LLC et all v County of Kern et al (F077656 (Super Ct. Nos. BCV -15-101666, BCV-15-101679), conservation easements do not provide an effective means of even partial mitigation for agricultural conversion impacts. Based on the Court's analysis, it is not possible to reduce a project's impact on agricultural land by requiring a conservation easement because such easements do not offset the loss of agricultural land in whole or in part. Since an agricultural conservation easement does not create new agricultural land to replace the agricultural land being converted to other uses, at the end of each year there would be a net loss of agricultural land equal to the amount converted by the Project, and the Project's significant impact on agricultural land would remain significant despite the implementation of the easement.

All feasible and reasonable mitigation has been evaluated and no such mitigation has been identified to be imposed that has not been included in the Draft EIR. This comment has been noted for the record, however revisions to the EIR are not necessary.

**1-D:** The comment states that mitigation through agricultural easements can take at least two forms, the first being outright purchase of easements or the donation of mitigation fees to a local, regional, or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural easements. The conversion of agricultural land should be deemed an impact of at least regional significance, and the search for replacement lands should not be limited strictly to lands within the project's surrounding area.

In response, please refer to response to comments 1-C and 1-E.

**1-E:** The comment provides a California Council of Land Trusts source for regional and statewide agricultural mitigation banks. In response, this comment does not raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**1-F:** The comment states that use of a conservation easement is only one form of mitigation that should be considered. The commenter cites the King and Gardiner Farms, LLC v. County of Kern (2020) case, stating that conservation easements on a 1 to 1 ratio are not alone sufficient to adequately mitigate a project's conversion of agricultural land.

In response, please refer to response to comments 1-C and 1-E.

**1-G:** In conclusion, the comment states that prior to approval of the proposed project the Department recommends further discussion and consideration of project issues including, the type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project; the proposed mitigation measures for all impacted agricultural lands within the proposed project area; and the project's compatibility with, and/or, potential contract resolutions for lands within agricultural preserves and/or enrolled in a Williamson Act contract.

In response, Section 4.2, *Agricultural Resources* of the EIR, describes in detail the project's permanent and temporary impacts on agricultural resources, including the type, amount, and location of farmland conversion; considered mitigation; and Williamson Act contract land within the project boundary. The proposed project would convert approximately 34 acres of Prime Farmland, 1,198 acres of Farmland of Statewide Importance and 146 acres of Unique Farmland. Although the Project site has been actively farmed within the past 10 years, the 34 acres of the project site that are designated as "Prime Farmland" only represent a fraction of a percent of the 885,957 acres of harvested agricultural land in Kern County (DOC 2018).

The project would be consistent with the goals, policies, implementation measures, and action programs of the Kern County General Plan (Goals 2, 3, and 5; Policies 7, 9, and 12) that promote the preservation and use of available natural resources. Even though agricultural uses would not occur with the proposed project site, should the solar facility cease operations, the Exclusive Agriculture (A) zoning and the County's standard mitigation measure requiring a Decommissioning Plan and financial assurances would promote the conversion of the site back to agricultural uses. Although implementation of the project would convert a very small portion of the County's Prime Farmland, the conversion of approximately 1,377 acres of Important Farmland (includes Prime Farmland, Farmland of Statewide Importance, and Unique Farmland) constitutes a significant impact.

A total of approximately 1,403.94 acres of the approximately 3,469.97-acre project site are subject to active Williamson Act contracts; however, all of these 1,403.94 acres have documented petitions filed for the non-renewal of each contract.

As described in response to comments 1-C and 1-E above, the EIR has determined that there are no feasible mitigation measures available that would reduce impacts to a less than significant level.

**1-H:** The comment concludes by providing thanks for being allowed to comment on the Draft EIR for the proposed project, and requests that notices of any future hearing dates as well as any staff reports pertaining to this project be provided to the identified contact. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment Letter 2



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

***GAVIN NEWSOM, Governor***
***CHARLTON H. BONHAM, Director***

November 1, 2021

Jonathan Jensen
Kern County Planning and Natural Resources Department
2700 "M" Street, Suite 100
Bakersfield, California 93301
(661) 862-8638

Subject: **Sandrini Solar Project by EDPR CA Solar Park, LLC (Project)**
**DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)**
**State Clearinghouse No. 2021040761**

Dear Jonathan Jensen:

The California Department of Fish and Wildlife (CDFW) received a Draft Environmental Impact Report (DEIR) from Kern County, as Lead Agency, for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] The Project proponent is EDPR CA Solar Park LLC.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

2-A

**CDFW ROLE**

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on

2-B

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

projects and related activities that have the potential to adversely affect fish and wildlife resources. 2-B Cont.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required. 2-C

As a responsible agency, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

**PROJECT DESCRIPTION SUMMARY**

**Proponent:** EDPR CA Solar Park LLC

**Objective:** The project includes a request for land use entitlements necessary to facilitate the construction and operation of a solar photovoltaic power generating facility and associated facilities that would produce up to 300 megawatt (MW) alternating current (AC) utility-scale solar power with an up to 100 MW of energy storage capacity in the San Joaquin Valley portion of unincorporated Kern County. The proposed project consists of five separate sites, located on 33 parcels of privately-owned land, totaling approximately 3,469.87 acres. However; it is anticipated that approximately 2,472.89 acres would be utilized (developed) for the construction of the solar panels and permanent facilities and the remaining 996.98 acres would be restricted to use for conservation of habitat (on-site conservation land) and could not be developed. The project would be supported by both a 70 kV and a 230 kV overhead and/or underground electrical transmission line(s) originating from two on-site project collector substations and terminating at the PG&E Wheeler Ridge Substation. 2-D

**Location:** The project site is located within Township 32S, Range 26E, Section 25; Township 32S, Range 27E, Section 30; Township 32S, Range 27E, Section 29; Township 32S, Range 27E, Section 28; Township 32S, Range 27E, Section 32; Township 32S, Range 27E, Section 33; Township 32S, Range 27E, Section 34; and Township 32S, Range 28E, Section 31; and Township 32S, Range 27E, Section 34, Mount Diablo Base and Meridian. The project site is located approximately 1.5 miles

from the unincorporated community of Kern Lake and approximately 7 miles from the unincorporated community of Mettler.

2-D Cont.

**Timeframe:** Unspecified

**COMMENTS AND RECOMMENDATIONS**

In addition to information provided in the DEIR, CDFW met with the Project proponent via Microsoft Teams on October 15, 2021, to discuss the proposed Project. CDFW offers the comments and recommendations below to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources based on both the DEIR and that meeting.

Currently, the DEIR acknowledges that the Project area is within the geographic range of several special-status animal species and proposes specific mitigation measures to reduce impacts to less than significant. CDFW has concerns about the ability of some of the proposed mitigation measures to reduce impacts to less than significant and/or avoid unauthorized take of species listed pursuant to the California Endangered Species Act (CESA). Specifically, we have concerns about the State and federally endangered and State fully protected blunt-nosed leopard lizard (*Gambelia sila*), the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*), the State threatened Swainson's hawk (*Buteo swainsoni*), and special-status small mammals such as the State threatened San Joaquin antelope squirrel (*Ammospermophilus nelsoni*), the State and federally endangered Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), and giant kangaroo rat (*Dipodomys ingens*). CDFW also advises that the DEIR appears to have inappropriately cited Fish and Game Code Section 1913(c) as part of its mitigation measures.

2-E

**San Joaquin Kit Fox (*Vulpes macrotis mutica*; SJKF)**

The DEIR (Page 4.4- 30) states that there are CNDDB recorded occurrences (EONDX 67741 and EONDX 67742) that overlap the Project site, observed between 1972 and 1975, potential SJKF dens that were observed during the 2020 reconnaissance surveys, and potential SJKF dens observed during the 2021 focused burrow surveys in Valley Sink Scrub habitat. The DEIR acknowledges that SJKF can potentially den on the Project site as well as forage and traverse through the agricultural and urban areas in and around the Project area. Page 4.4-53 of the DEIR also acknowledges SJKF may be attracted to areas on the Project site "due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance and may use areas of the site, including agricultural and rural areas, as foraging and dispersal corridors."

2-F

CDFW does not consider Mitigation Measure 4.4-6, as currently written, to be adequate to reduce impacts to less than significant and/or avoid unauthorized take. As part of this measure, the DEIR states, "If dens/burrows that could support any of these species are discovered during the pre-activity surveys conducted under MM 4.4-15, the avoidance buffers outlined below should be established. No work would occur within these buffers unless the biologist approves and monitors the activity." CDFW generally agrees with the no-disturbance buffers provided for SJKF dens. However, no parameters or criteria are provided that will be considered by the biologist when making a determination if a buffer can be reduced. Based on the current information, CDFW recommends that this measure be edited to remove the option for the Project biologist to reduce buffers and instead require consultation with CDFW if these buffers are not feasible, so that CDFW can determine if the Project can avoid take. If take cannot be avoided, then take authorization through the acquisition of an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b) would be necessary to comply with CESA. CDFW also advises that Fish and Game Code section 86 defines take as hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. Although these buffer distances listed in the DEIR may be sufficient to avoid direct mortality or den destruction, encircling a den with development activities may inhibit the ability of SJKF to freely disperse to and from its den and has the potential to be considered "capture" and/or ultimately result in take in the form of mortality. Therefore, CDFW recommends that in addition to the buffer distances listed in Mitigation Measure 4.4-6, that no den be surrounded by more than 180 degrees by development activities. In addition, CDFW recommends all perimeter fencing be raised five to seven inches above ground level and knuckled under to allow SJKF movement into and out of the Project site.

2-F Cont.

2-G

2-H

**Swainson's Hawk (*Buteo swainsoni*; SWHA)**

The DEIR (Page 4.4-25) states one SWHA nest was identified within the proposed conservation area adjacent to the Project site and two more SWHA nests were identified within 0.5 miles of the Project site. Based on this information, CDFW does not consider Mitigation Measure 4.4-12 adequate to reduce impacts to less than significant or avoid unauthorized take.

As part of Mitigation Measure 4.4-12, the DEIR states, "Construction activities should not occur within 500 feet of an active nest but depending upon conditions at the site this distance may be reduced." Based upon the information provided, CDFW does not consider 500 feet to be adequate to avoid take of SWHA or impacts to the nest site. In addition, no parameters or criteria are specified that will be used by the biologist to consider when the buffer can be reduced or when activities can occur. Therefore, CDFW recommends the Project apply for an ITP.

2-I

If the Project chooses not to apply for an ITP, CDFW recommends that Mitigation Measure 4.4-12 be edited to increase the no-disturbance buffer to 0.5-mile and that the buffer remain in place until a qualified biologist has determined that SWHA have fledged and are no longer reliant upon the nest or parental care for survival. If this buffer is not feasible, then consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA. 2-I Cont.

Furthermore, the DEIR states that protocol surveys were conducted for SWHA, but also seems to indicate that SWHA surveys were solely conducted between April 2nd and May 29th. This period largely falls in Period IV in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. During this period nests are very difficult to initially detect, and surveys are not recommended to be initiated during this time period. CDFW recommends the DEIR clarify when surveys were conducted and advises that surveys conducted solely in Period IV are not likely to detect all SWHA nests. 2-J

**Special Status Small Mammal Species and Blunt-nosed Leopard Lizard**

The DEIR and the meeting on October 15, 2021, reported that the most suitable habitat for these species occurs within the proposed conservation area and the gen-tie route where individual powerline poles can be sited to avoid particularly sensitive habitat features. The Project proposes full avoidance for small mammal species listed pursuant to CESA and blunt-nosed leopard lizard. Mitigation Measures 4.4-5 and 4.4-5 state that all small mammal burrows will be avoided by 50 feet. However, Mitigation Measure 4.4-4 allows “overland travel not requiring ground disturbance may be permitted within the 50-foot buffer under the direct supervision of a qualified biologist.” The DEIR also acknowledges that species-focused protocol surveys were not conducted for any of these species. 2-K

While CDFW is conceptually open to this approach, we cannot concur that these mitigation measures are adequate as currently written. Overland travel has the potential to collapse burrows, killing or entombing (capture) individuals inside the burrow, whether ground disturbance is associated with the overland travel or not. In addition, burrow avoidance prevents burrow collapse and associated take, but burrow avoidance alone may not prevent unauthorized take of individuals that move into the Project area. Finally, burrow avoidance may not be adequate if a burrow(s) are encircled by development activities as discussed above for SJKF.

Therefore, CDFW recommends the following recommendations for both Mitigation Measures 4.4-4 and 4.4-5. CDFW recommends that the 50-foot buffer exclude all activity, including overland travel. CDFW recommends that a qualified biologist familiar 2-L

with the biology and natural history for these species is on the Project site (including the gen-tie area) for all construction and ground disturbing activities and that the qualified biologist have the authority to stop work if these species are detected in or immediately adjacent to the Project site. CDFW also recommends that construction and ground-disturbing activities are prohibited from encircling small mammal burrows by more than 180 degrees in addition to the 50-foot no-disturbance buffer. Tollestrup (1983) reported a maximum movement distance for BNLL of 1,509 feet. CDFW recommends that if any of these species are detected in or adjacent to the Project site (including the gen-tie area) that all work with 1,500 feet of the species observation stop and CDFW is notified immediately to determine if take can be avoided and appropriate next steps.

2-L Cont.

2-M

2-N

**Special Status Plants**

Mitigation Measure 4.4-1 states “If special-status plant species are found during floristic surveys or have been previously identified, then Ecologically Sensitive Area (ESA) fencing should be established at a 50-foot radius around these individuals to ensure that they are not destroyed during project construction activities. Pursuant to section 1913(c) of the California Fish and Game Code, if project activities cannot avoid direct impacts to special-status plants, CDFW shall be notified and provided the opportunity to salvage any of these plants that would be affected. The CDFW may enter into agreement with the project proponent to retain a qualified entity for the relocation of sensitive plants to an approved location. Any salvage would be undertaken in accordance with a salvage plan to be developed in consultation with CDFW. The plan would include methods for transplanting and watering (if appropriate), success criteria for salvaged plants, monitoring the health and survivorship of salvaged plants during at least 5 years following salvage, and contingency measures if plant survivorship requirements are not satisfied.”

Fish and Game Code Section 1913(c) is not applicable to this Project. CDFW recommends that this reference is removed from the mitigation measure and replaced with a requirement to consult with CDFW if special status plant species are detected in the Project area to determine if the Project can avoid take of species listed pursuant to CESA or the Native Plant Protection Act. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code sections 2081 subdivision (b) and 1908 is necessary to comply with CESA and the Native Plant Protection Act.

CDFW appreciates the opportunity to comment on the DEIR to assist Kern County in identifying and mitigating Project impacts on biological resources.

2-O

If you have any questions, please contact Jaime Marquez, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 580-3200 or by electronic mail at Jaime.Marquez@wildlife.ca.gov.

Sincerely,

DocuSigned by:
FA83F09FE08945A...

Julie A. Vance
Regional Manager

**REFERENCES**

Swainson's Hawk Technical Advisory Committee (SWHA TAC), 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley of California. Swainson's Hawk Technical Advisory Committee. May 31, 2000.

Tollestrup, K. 1983.The social behavior of two species of closely related leopard lizards, Gambeliasilus and Gambelia wislizenii.Z. Tierpsychol. 62:307-320.

## Response to Comment Letter 2: California Department of Fish and Wildlife (CDFW) (November 1, 2021)

**2-A:** The commenter acknowledges receipt of the Draft EIR from Kern County Planning and Natural Resources and thanks the County for the opportunity to comment on the Draft Environmental Impact Report for the Sandrini Solar project (Draft EIR). No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**2-B:** The comment identifies CDFW as California's Trustee Agency for fish and wildlife resources of the State and has jurisdiction over the conservation, protection, and management of said resources. The comment also clarifies that CDFW is charged by law to provide biological expertise during public agency environmental review of CEQA documents. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**2-C:** The comment identifies CDFW as a Responsible Agency under CEQA, which may need to exercise regulatory authority over resources such as lake and streambed, species protected by the California Endangered Species Act (CESA) and nesting birds, as defined by Fish and Game Code. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**2-D:** The comment correctly identifies the project proponent, project description (summary) and project location. The comment notes that the project timeframe is "unspecified". In response, the Draft EIR estimates that construction of the project may begin as early as January 2022 (see Draft EIR Section 4.8, page 4.8-20). This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**2-E:** The commenter notes that their comments are informed both by the Draft EIR and a meeting held with the Project proponent on October 15, 2021. The proponent has also noted to the County that additional meetings were held with CDFW on April 11, 2019 and November 16, 2020 and has appreciated CDFW feedback during prior coordination on the Project. The commenter proceeds to note that they have concerns about some of the Draft EIR mitigation measures. Please see the following responses regarding specific concerns identified by the commenter. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**2-F:** The commenter notes that there are records of San Joaquin Kit Fox (SJKF) in areas near the Project and re-states the Draft EIR which identifies the potential for SJKF to forage and/or den in certain areas of the Project. The commenter agrees with the no-disturbance buffers for SJKF required by the DEIR, but states that there are insufficient parameters or criteria for determining whether buffers can be reduced. The commenter states that the MM 4.4-6 should be revised to remove the option for Project biologists to reduce SJKF buffers and instead require consultation with CDFW if the DEIR's buffers cannot feasibly be maintained to determine whether take can be avoided.

In response, adjusting setback buffers to reflect the relative intensity of construction activities is a common measure in many guidance documents. For instance, the CDFW burrowing owl mitigation guidelines (CDFW 2012) reference activity tables from petroleum activities in Canada (Environment Canada 2009) in determining various buffer distances. Similarly, the U.S. Fish and Wildlife Service Guidance for Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California (USFWS 2006) describe several factors that could be considered when determining permissible activities near nests. The CDFW Staff Report regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California (CDFW 1994) notes that variations in disturbance buffers may be appropriate depending on the location of nests relative to existing human disturbance. Specific to SJKF, research has noted that some foxes may be highly tolerant of human activities and have been

observed foraging and denning in close proximity to human disturbance (Cypher et al. 2012, Cypher et al. 2019). Therefore, in some situations there may be reasonable criteria by which buffers could be reduced while still avoiding take.

However, as the commenter requested, Mitigation Measure MM 4.4-6 has been revised to require the Proponent to confer with CDFW regarding the need for an incidental take permit if take cannot be avoided. Please refer to response to comment 2-G for the revised mitigation measure. While this modification adds clarity to the EIR, it does not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

**2-G:** The commenter states that Project activities that inhibit the ability of SJKF to freely disperse to and from their dens could be considered "capture" and recommends that no den be surrounded with development activities by more than 180 degrees. In this response, "development activities" are interpreted to refer to active construction activities.

As the commenter states, individual SJKF denning within the Project area during construction, if any, would need the ability to disperse from construction activity and this should be factored into Project design for dens identified prior to Project construction. In response, the Project Proponent has designed the Project such that all potential SJKF dens identified during prior surveys have not been surrounded by solar PV facilities and all potential dens are located within the Conservation Area, shown in Figure 3-3 of the Draft EIR. While transmission line construction activity may occur in a 180-degree direction from solar PV facilities, this activity would occur in isolated pole locations and not block SJKF dispersal even if that activity occurred opposite construction of the larger solar facility. In some cases, dens may be excavated by kit foxes after construction activities have begun and, in these cases, safe dispersal would be accommodated through a modification of construction activities and setback buffers as further discussed below and in response to comment 2-F. Additionally, Mitigation Measure MM 4.4-18 has been modified to clarify the biological monitors' roles in allowing for safe dispersal, as shown in response to comment 2-L.

Mitigation Measure MM 4.4-6 has been revised to account for this comment and comment 2-F as follows:

> **MM 4.4-6 Avoidance of Burrows for Burrowing Owl, American Badger, and SJKF.** Within 14 days prior to the start of project ground-disturbing activities, a pre-activity survey within a 500-foot buffer where land access is permitted ~~should~~ shall be conducted by a qualified biologist knowledgeable in the identification of these species and approved by the CDFW. Surveys need not be conducted for all areas at one time; they may be phased so that surveys occur within 14 days of the portion of the project site that will be disturbed. If dens/burrows that could support any of these species are discovered during the pre-activity surveys conducted under MM 4.4-15, the avoidance buffers outlined below ~~should~~ shall be established. No work would occur within these buffers unless the biologist approves and monitors the activity as outlined further below.
>
> Burrowing Owl (active burrows)
>
> - Non-breeding season: September 1 – January 31 – 160 feet
> - Breeding season: February 1 – August 31 – 250 feet
>
> If burrowing owl are found within these recommended buffers and avoidance is not possible, burrow exclusion would be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. Replacement of occupied burrows with artificial burrows shall occur at a ratio of one burrow collapsed to

one artificial burrow constructed (1:1) to mitigate for evicting burrowing and the loss of burrows. Burrowing owl may attempt to colonize or re-colonize an area that will be impacted; thus, ongoing surveillance shall occur at excluded burrows at a rate that is sufficient to detect burrowing owl if they return.

American Badger/SJKF

- Potential or Atypical den – 50 feet
- Known den – 100 feet
- Natal or pupping den – 500 feet, unless otherwise specified by CDFW.

In determining whether activity could occur within these buffers, the biological monitor would take into account the following:

d. Noise level and duration. The noise level and duration of activities would be considered. Loud (e.g. greater than 80 decibels) and sustained (e.g. longer than one hour) activities would be disallowed within the buffer setbacks. Activities with shorter durations and/or lower noise levels may be considered with continual observation of the den by the monitor and work stoppage if the biologist detects evidence of disturbance.

e. Level of disturbance typically experienced in the location of the den prior to construction. Some areas of the Project (e.g. existing roads or agricultural areas) have been historically subject to human disturbance and dens near these areas are assumed to be accustomed to those previous levels of disturbance. If construction noise and duration are similar to disturbances that would have occurred in the area prior to construction (e.g. vehicular traffic on an existing road), those activities could continue with ongoing monitoring of the den by a biological monitor.

f. If construction activities have begun within 100 feet of a potential or atypical den that was determined during pre-construction activities to be inactive when construction began and the den becomes active during construction (i.e. becomes a "known" den), those activities would be allowed to continue at the same intensity as occurred when the den became active. A biological monitor would maintain continual watch on the den while construction activities are conducted within the buffer described above.

In no case would construction activities, regardless of noise and duration, occur closer than 50 feet from a known or potential/atypical den or 500 feet from a natal/pupping den unless approved by CDFW or USFWS. Any evidence that the construction activities were causing negative changes in behavior patterns would cause the biologist to disallow those activities inside the buffer.

SJKF must be allowed to disperse from their dens and from active construction activities. The Project will be designed – or construction will be phased – such that known dens are afforded a dispersal corridor consistent with the work restriction distances noted above. For example, if a new natal/pupping den is identified within the project area after construction has begun and would otherwise be surrounded by construction activity, a 500-foot dispersal corridor would be designated within which no active construction activity could take place and which would remain free from equipment that would bar passage of SJKF. The corridor could be modified as construction activities are completed in other

areas adjacent to the den so long as at all times a non-obstructed no-work dispersal corridor is provided.

If take of SJKF cannot be avoided, the project proponent shall confer with CDFW on the need for take authorization through the acquisition of an incidental take permit, pursuant to Fish and Game Code section 2081 subdivision (b).

This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and further revisions to the Draft EIR are not necessary.

**2-H:** The commenter recommends perimeter fencing be raised five to seven inches above ground level and knuckled under to allow SJKF movement into and out of the Project site. In response, Mitigation Measure MM 4.4-22 in the Draft EIR requires that fencing be installed with a four- to six-inch gap at the bottom and knuckled under to allow for safe passage of SJKF. This height is documented in "Permeable Fence and Wall Designs That Facilitate Passage by Endangered San Joaquin Kit Foxes" (Cypher et al 2009) and "Suitable and Effective Coyote Control Tools for the Urban/Suburban Setting" (Huot et al 2007), which collectively show that kit foxes can pass under gaps greater than 3-3.5 inches but coyotes cannot pass through gaps less than six inches. The commenter has not presented evidence justifying a different fence height. As such, existing research suggests that a four- to six-inch gap would be protective of SJKF and modifications to the existing mitigation measure are not warranted. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and further revisions to the Draft EIR are not necessary.

**2-I:** The commenter states that they do not believe Mitigation Measure MM 4.4-12 is adequate to reduce impacts to nesting Swainson's hawk (SWHA) to less than significant or avoid unauthorized take of SWHA because the commenter does not consider a 500-foot setback from active SWHA nests to be adequate. Additionally, the commenter states that no parameters or criteria are specified that could be used by the biologist to consider when buffers would be reduced. The commenter states that they recommend the Project proponent apply for an incidental take permit or increase the no-disturbance buffer to 0.5-miles and retain the buffer until a qualified biologist has determined that SWHA have fledged and are no longer reliant upon the nest or parental care for survival.

In response, parameters and criteria were included in Mitigation Measure MM 4.4-12 that would be considered in determining buffer distances. The Mitigation Measure notes that if an active SWHA nest was observed within 0.5 miles of active construction, an assessment would be conducted to determine the potential for construction activities to impact the nest. The Mitigation Measure states that "the assessment would consider the type of construction activities, the location of construction relative to the nest, the visibility of construction activities from the nest location, and other existing disturbances in the area that are not related to construction activities of this project. Based on this assessment, the biologist will determine if construction activities can proceed, and the level of nest monitoring required."

As noted above in response to comment 2-F, adjusting setback buffers to reflect the relative intensity of construction activities is a common measure in many guidance documents. Specific to SWHA, it is thought that there is a wide variation in tolerances of individual SWHA to human disturbances, suggesting that activity setbacks should uniquely reflect the particular nesting individuals, their tolerance to human disturbance, and the type of human activity occurring. Nesting Swainson's hawks are somewhat tolerant of human activity, particularly in areas where activity is regular and individual pairs can habituate to it. Nest sites are sometimes located near roads and houses, and frequently near field edges where crop cultivation activities regularly occur (Woodbridge 1998). However, as Woodbridge notes changes in activity regime (construction in

previously open areas, human intrusion at nest site) can cause nest abandonment, particularly during the pre-nesting, egg-laying, and incubation stages of the reproductive cycle. As such, there are certain circumstances where construction activity within 0.5-miles of an active nest could be appropriate with appropriate caution. For example, if a new nest arises within 0.5 miles of construction activity that had already begun prior to the nest becoming active, it is reasonable to assume that the particular nesting individuals are accustomed to human disturbance and could continue nesting activity amidst a similar level of disturbance as was occurring when the nest became active. Further, as shown in Section 4.13 and Appendix H of the Draft EIR, much of the equipment to be used for Project would approach ambient noise levels at a distance of 500 ft suggesting a lesser degree of disturbance depending on the equipment used and the distance from the nest.

As suggested by Woodbridge (1998), given the regular crop cultivation activities that have historically existed in the Project area, it is possible that nesting individuals in this area may be more accustomed to human disturbance in those historically cultivated areas. The Project has sited solar infrastructure exclusively on land that has historically been subject to frequent agricultural activity and associated ongoing disturbances. Given the consideration afforded to agricultural activity by Woodbridge, it is important to note the contextual difference between projects located in the Antelope Valley and those, such as the Project, which are located in the Central Valley. While SWHA nesting activity has been declining within the Antelope Valley of Kern County, in the Central Valley the SWHA population has increased substantially from 550 breeding pairs in 1986-87, to 3,218 breeding pairs in 2006, despite continued agricultural activity during that time period (Battistone et al 2019).

In accordance with the comment, Mitigation Measure MM 4.4-12 has been revised to require a setback from active SWHA nests of 0.5 miles unless the criteria discussed above suggest that certain activities may be conducted in closer proximity to the nest.

> ***MM 4.4-12 Swainson's Hawk Nest Avoidance.*** *No mature trees that could be used by nesting Swainson's hawk will be removed during construction of the project. If an active Swainson's hawk nest is discovered at any time within 0.5 miles of active construction, a qualified biologist should complete an assessment of the potential for current construction activities to impact the nest. The assessment would consider the type of construction activities (e.g. noise levels and duration), the location of construction relative to the nest and pre-existing disturbance levels (e.g. construction activities in historically agricultural land versus activities in non-agricultural land), the visibility of construction activities from the nest location (e.g. topography or vegetation that could block line-of-sight to the nest), the number of construction personnel required to perform activities within the setback, and other existing disturbances in the area that are not related to construction activities of this project. Based on this assessment, the biologist will determine if construction activities can proceed, and the level of nest monitoring required. When conducting the assessment, the biologist will consider the following levels of construction activity, with higher levels of activity requiring greater caution in determining setbacks:*
>
> *d. Light construction activity such as fence installation and limited vehicle access. Noise levels generated by these construction activities would likely be similar to existing ambient noise levels in closer proximity to the occupied nests.*
>
> *e. Moderate and/or isolated construction activity such as grading and construction of substation, substation-access road, inverter skids, and manual installation of solar panels. Noise levels generated by these construction*

*activities would likely be similar to existing ambient noise levels beyond a moderate distance from the occupied nests.*

*f. Heavy construction activity across a large area of the Project and/or using louder equipment such as pile drivers, concrete saws, or jackhammers. Noise levels for this type of activity will depend on location of the activities relative to the nest and allowing these activities within the 0.5-mile setback would require coordination with CDFW.*

*In the event the assessment determines that construction activities could occur closer than 0.5-miles to an active nest, in no event would construction activities ~~should not~~ occur within 500 feet of an active nest without approval from CDFW~~but depending upon conditions at the site this distance may be reduced~~. Full-time monitoring to evaluate the effects of construction activities on nesting Swainson's hawks ~~may~~ would be required where activity occurs closer than 0.5 miles. The qualified biologist ~~should~~ shall have the authority to stop work if it is determined that project construction is disturbing ~~the~~ nesting activities. These buffers may need to increase depending on the sensitivity of the nesting Swainson's hawk to disturbances and at the discretion of the qualified biologist. No avoidance would be needed if construction occurs near a known Swainson's hawk nest outside of the Swainson's hawk nesting season. In the event take cannot be avoided, the proponent shall confer with CDFW on the need for an incidental take permit.*

While this modification adds clarity to the EIR, it does not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

**2-J:** The commenter states that surveys conducted for Swainson's hawks (SWHA) were initiated during a time period when nests are difficult to detect. The commenter requests that the Draft EIR clarify when surveys were conducted and states that surveys conducted during Period IV of the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawks Nesting Surveys in California's Central Valley (survey guidelines) are unlikely to detect all nests.

In response, surveys for SWHA were conducted during the following times:

- 4/15/2020-4/16/2020 – Reconnaissance surveys were conducted to verify habitat types and identify potential avian nests, including potential SWHA nests within 0.5 miles of the surveyed area
- 9/15/2020-9/18/2020 – Reconnaissance surveys were conducted to verify habitat types and identify potential avian nests, including potential SWHA nests within 0.5 miles of the surveyed area
- Six focused SWHA surveys were conducted in 2021 within the Project area and a 0.5-mile buffer. Surveyors reviewed locations of nests identified during the surveys in 2020 to augment the ability to detect all active nests. Surveys were conducted during the following dates in 2021: 4/2, 4/24, 4/30, 5/19, 5/23, and 5/29.

The purpose of the SWHA surveys described in the Draft EIR was to determine the number of active SWHA nests at or within 0.5-mile of the project area. The purpose of the surveys was to detect active nests only, not to make any statements about nest success or number of young fledged. Observations during the focused surveys were sufficient for that purpose and were used to inform planning of the Project. The survey site and surrounding area are generally very open with most of the area being actively farmed. There are very few large trees present, and no dense riparian areas

that would make detection of active nests more difficult in the spring, when trees have leafed out. The biologist was also able to identify old nests in shrubs and trees from previous years.

Three pairs of SWHA were identified in April 2021 and one additional active SWHA nest was identified in May 2021. The pair identified in May was confirmed using one of the old stick nests identified during the April surveys. Based on the habitat conditions present at this site (i.e., the open site conditions and the lack of dense tree stands), the surveys conducted at the site have likely identified the nesting SWHA within the survey areas. The commenter states that surveys conducted during Period IV of the survey guidelines in areas of dense trees are unlikely to detect all nests, however, these conditions are not present at the Project site and surrounding area.

Out of an abundance of caution, however, the Draft EIR accounts for the possibility of undetected Swainson's hawk nests with Mitigation Measure MM 4.4-11's requirement for additional preconstruction activity surveys in accordance with the survey guidelines. Surveys will be conducted prior to construction to update the previous survey information and any new nests that are established will be found and factored into the overall avoidance strategy. In conclusion, this comment does not raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**2-K:** The commenter states that while they are conceptually open to the approach of avoiding small mammal burrows with a 50-ft buffer, the exception for overland travel has the potential to collapse burrows and recommends that Mitigation Measures MM 4.4-4 and MM 4.4-5 be modified to exclude all activity, including overland travel.

In response, burrow collapse as a result of overland travel is a possibility, particularly in locations with loose friable soils that dominate the natural habitat through which a portion of the Project transmission line is proposed. However, the Project site contains a number of existing compacted access roads and the Project has been designed to minimize disturbance to native habitat and wildlife by using these existing roads wherever feasible. The use of existing compacted access roads is not expected to result in burrow collapse. Nevertheless, to reflect this comment, Mitigation Measures MM 4.4-4 and MM 4.4-5 have been modified as follows:

> ***MM 4.4-4 Protocol-level Surveys and/or Avoidance of Blunt-nosed Leopard Lizard****. The area of Valley Sink Scrub habitat located in Zone Map #160 contains suitable habitat, including burrows, for BNLL. If project activities in this area cannot be avoided (i.e., solar arrays or power pole locations) and if small mammal burrows cannot be avoided by ground-disturbing activities (e.g. excavation or grading) with a 50-foot buffer per MM 4.4-5, qualified biologists shall conduct protocol-level surveys for blunt-nosed leopard lizard at disturbance locations within the 50-foot burrow buffer according to the Approved Blunt-nosed Leopard Lizard Survey Methodology, as revised as of October 2019 (Appendix D1), or using another survey protocol approved by USFWS and CDFW. Project activity outside the specified 50-foot buffer may proceed while surveys are conducted. ~~Overland~~ Travel ~~not requiring ground disturbance~~ utilizing pre-existing access roads may be permitted within the 50-foot buffer under the direct supervision of a qualified biologist. If no blunt-nosed leopard lizard is observed during the survey no further action is required. If blunt-nosed leopard lizards are observed during the survey or incidentally during construction, then the measures below should be implemented:*
>
> - *Mitigation Measure MM 4.4-5 should be implemented to avoid all blunt-nosed leopard lizards that might be present in underground burrows. This would only be required in areas where blunt-nosed leopard lizards were determined to be present.*

- *All construction activities occurring during the active BNLL season in areas where BNLL were determined to be present shall require that on-site biological monitors be present at each site where activities are occurring within these areas. ~~If a BNLL is present within 50 feet of the construction activities, the monitor shall halt all activities until the BNLL leaves the 50-feet area on its own accord.~~ If a biological monitor or any other Project staff identify blunt-nosed leopard lizard within 1,500 feet of construction activity, construction within that buffer will pause until a monitor is positioned to directly observe the individual. Construction would continue unless the monitor determines that the individual is approaching an active construction area. In no event would active ground disturbance occur within 400 feet of an observed BNLL. CDFW would be notified if a biological monitor or construction staff observes a BNLL on or adjacent to the Project site.*

- *Consultation with the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) will occur and an incidental take permit will be sought from USFWS if take of BNLL habitat (as defined by the federal Endangered Species Act) cannot be avoided. An incidental take permit would ensure that any impacted habitat is offset with mitigation habitat at a ratio to be determined in consultation with USFWS. Consultation with CDFW will ensure that no direct take of individual BNLL occurs given the protection afforded to this species as a Fully Protected Species under Fish and Game Code 5050.*

***MM 4.4-5 Avoidance of Small Mammal Burrows**. Tipton kangaroo rat, Tulare grasshopper mouse, blunt-nosed leopard lizard, and San Joaquin antelope squirrel depend on small mammal burrows for critical life functions. The Valley Sink Scrub habitat located in Zone Map #160 contains small mammal burrows. Any construction of solar panel fields within the project footprint, and temporary access roads and tower locations for the gen-tie routes in non-cultivated habitat types will be sited to avoid small mammal and other fossorial burrows. A pre-construction survey to search the proposed gen-tie project alignment for listed species and suitable burrows will be conducted in suitable habitat prior to ground disturbing activities associated with project activities. Surveys for burrow locations that will inform the location of temporary access roads and gen-tie towers may be conducted earlier in the project design cycle, but the final survey for burrows will occur no more than 30 days before the beginning of the gen-tie line construction to ensure an up-to-date understanding of burrowing locations prior to actual siting. Existing survey information on the location of burrows and a 50-foot buffer around the existing burrows will be used to avoid burrows when planning the placement of solar panel stations, access routes and placement of gen-tie tower facilities.*

*If small mammal burrows cannot be avoided by ground disturbing activity (e.g. excavation or grading) and/or overland travel outside pre-existing access roads with a 50 –foot buffer, then verification trapping or other method as developed in consultation with CDFW and USFWS will be conducted in those areas of the buffer that cannot be avoided. If it is determined that the Tipton kangaroo rat or San Joaquin antelope squirrel is absent, then no further measures are warranted. If present, the following measures should be implemented:*

*• The loss of occupied habitat should be compensated at a an agreed upon ratio with the appropriate agencies but no less than a 1:1 ratio to ensure no net loss of habitat.*

*• Consultations with the USFWS and CDFW will occur and Incidental Take Permits acquired if take of listed species cannot be avoided.*

> *• If it is determined that the Tulare grasshopper mouse is present, a biological monitor should be on site to relocate any animals that might not leave the work site on their own volition.*

The commenter also states that burrow avoidance alone may not prevent unauthorized take of individuals that move into the Project area. To address this comment, Mitigation Measure MM 4.4-4 has been revised to specify halt-work requirement for observed BNLL as shown above. Additionally, Mitigation Measures MM 4.4-15, MM 4.4-17, and MM 4.4-18 requires pre-construction surveys, worker environmental awareness training, and on-site biological monitoring during the construction period.

The commenter also states that burrow avoidance may not be adequate if a burrow is encircled by development activities. This comment is addressed in the response to comment 2-M.

While these modifications add clarity to the EIR, they do not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

**2-L:** The commenter recommends that a qualified biologist familiar with the biology and natural history for the species in question is on the Project site for all construction and ground-disturbing activities and that the qualified biologist have the authority to stop work if these species are detected in or immediately adjacent to the Project Site.

In compliance with this request, Mitigation Measure MM 4.4-18 has been revised to reflect this recommendation as follows:

> ***MM 4.4-18 On-Site Biological Monitoring****. During construction of all portions of the project~~(APNs 295- 130-57, 295-100-19, 295-130-48, 295-130-51, 295-130-21, 295-130-26, 295-130-27, 295-120-15, and 295-130-81)~~, including the portions of the gen-tie line that occur within native habitat (Valley Sink Scrub), a biological monitor familiar with the biology and natural history of the special-status species potentially present at the Project with halt-work authority will be present to observe activities. During construction, the qualified biologist will have the authority to order a halt to construction activities in the following instances: (1) a biological monitor observes activities that may result in mortality or harm to a listed or fully protected species (BNLL), (2) a biological monitor observes any of the mitigation and avoidance measures are not being implemented properly, 3) special-status species are detected in or immediately adjacent to the Project site and may be harmed if construction activity is permitted to continue, or (4) if warranted to allow special-status species to traverse to and from burrows. Construction will resume when either the listed species moves out of harm's way on its own or the avoidance and minimization measures that are not being implemented properly are rectified. The biological monitor shall take steps in coordination with construction personnel to allow any special-status species observed to leave the site on their own accord and biological monitors will have the ability to halt work in areas of the Project to ensure safe dispersal.*

While this modification adds clarity to the EIR, it does not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

**2-M:** The commenter recommends that in addition to the 50-foot no-disturbance buffer from small mammal burrows required in Mitigation Measure MM 4.4-5, ground disturbing activities be prohibited from encircling small mammal burrows by more than 180 degrees.

In response, as noted above in response to comment 2-G, not all types of ground-disturbing activities would preclude safe passage for special-status species (e.g. transmission line construction would occur in isolated areas and not block passage even if that activity occurred opposite construction of the solar facility). Further, while small mammal burrows have the potential to be

used by special-status species, no special-status species that would be likely to use these burrows have been observed during surveys for the Project and identified small mammal burrows are likely to be used by common ground squirrel or other common mammals and as such a preclusion of all construction activity within a 180 degree radius of any small mammal burrow is not warranted. Mitigation Measure MM 4.4-18 has been revised to clarify that all special status species would be able to leave the area on their own accord and biological monitors will have the ability to halt construction activities to ensure safe passage of individuals. Refer to response to comment 2-L for the revised mitigation measure. While this modification adds clarity to the EIR, it does not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

**2-N:** The commenter states that blunt-nosed leopard lizard (BNLL) have the potential to travel up to 1,509 feet and recommends that any work within a 1,500-foot buffer of an observed BNLL be halted.

In response, while Tollestrup identified the specified maximum movement distance for BNLL, they did not note that disturbance within 1,500 feet of an individual BNLL would result in disturbance or behavior disruption that may result in take. Tennant et al (2018) studied the average daily travel distance for BNLL to be approximately 400 feet (123 meters) for males and considerably less for females. This suggests that a 400-foot no disturbance buffer around an individual observed BNLL would be fully protective of observed individuals. The biological monitor should take into account habitat quality when determining the likelihood of a BNLL to approach construction activities in previously disturbed agricultural land.

Mitigation Measure MM 4.4-4 has been updated to require notification to workers within the full potential BNLL movement area and alert them to potentially elevated risk and awareness. Additionally, the measure has been updated to require notification to CDFW in the event of a sighting of a BNLL. Please see response to comment 2-K for the revised mitigation measure.

This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and further revisions to the Draft EIR are not necessary.

**2-O:** The commenter states that Section 1913(c) of the Fish and Game Code is not applicable to the Project and recommends that reference to that section be removed and replaced with a requirement to consult CDFW if special status plant species are detected in the Project area.

In response, the Native Plant Protection Act allows the state to designate plant species as rare, threatened, or endangered and to regulate them accordingly. Species included on the current list of designated plants (CNDDB 2021) are referred to here as "listed species." One listed species, Bakersfield smallscale (*Atriplex tularensis*), was identified in the Draft EIR as having the potential to occur in the Project area although no sign of this species was identified during reconnaissance surveys or focused botanical surveys.

Other non-listed species with a designated California Rare Plant Rank were evaluated in the Draft EIR: Horn's milk-vetch (Astragalus hornii var. hornii), Lost Hills crownscale (*Atriplex coronata var. vallicola*), heartscale (*Atriplex cordulata var. cordulata)*, alkali mariposa lily (*Calochortus striatus*), hispid salty bird's beak (*Chloropyron mole ssp. Hispidum*), recurved larkspur (*Delphinium recurvatum*), kern mallow (*Eremalche parryi ssp. Kernensis*), and comanche point layia (*Layia leucopappa*). During focused botanical surveys, only dried remnants of Lost Hills crownscale were identified. Because Lost Hills Crownscale is not a listed species, impacts to that species, if any, would not require an incidental take permit from CDFW.

Mitigation Measure MM 4.4-1 has been revised to reflect the difference between listed plants and non-listed rare plants and reference to Section 1913(c) of the California Fish and Game Code has been removed follows:

***MM 4.4-1:*** *If ~~special-status~~ listed plant species are found during floristic surveys or have been previously identified, then Ecologically Sensitive Area (ESA) fencing should be established at a 50- foot radius around these individuals to ensure that they are not destroyed during project construction activities.~~Pursuant to Section 1913(c) of the California Fish and Game Code,~~ If project activities cannot avoid direct impacts to ~~special-status~~ non-listed plants with a California Rare Plant Rank, CDFW shall be notified and provided the opportunity to salvage any of these plants that would be affected. The CDFW may enter into agreement with the project proponent to retain a qualified entity for the relocation of sensitive plants to an approved location. Any salvage would be undertaken in accordance with a salvage plan to be developed in consultation with CDFW. The plan would include methods for transplanting and watering (if appropriate), success criteria for salvaged plants, monitoring the health and survivorship of salvaged plants during at least 5 years following salvage, and contingency measures if plant survivorship requirements are not satisfied. If listed plant species are identified in the Project area, CDFW would be conferred with to determine if the Project can avoid take of listed species. In the event take cannot be avoided, the project proponent shall confer with CDFW on the need for an incidental take permit.*

While this modification adds clarity to the EIR, it does not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

Comment Letter 3

# Office Memorandum

**KERN COUNTY**

To: Planning and Natural Resources Department
Johnathan Jensen

Date: September 23, 2021

From: Public Works Department
Floodplain Management Section
Kevin Hamilton, by Brian Blase

Phone: (661) 862-5098
Email: BlaseB@kerncounty.com

**Subject: Draft Environmental Impact Report**
**Sandrini Solar Project**

Our section has reviewed the attached subject documents and has the following comments:

3-A

The runoff of storm water from the site will be increased due to the increase in impervious surface generated by the proposed development.

The subject property is subject to flooding.

Therefore, this section recommends the following be included as Conditions of Approval for this project:

3-B

The applicant shall provide a plan for the disposal of drainage waters originating on site and from adjacent road right-of-ways (if required), subject to approval of the Public Works Department, per the Kern County Development Standards.

Associated flood hazard requirements will need to be incorporated into the design of this project per the Kern County Floodplain Management Ordinance.

## Response to Comment Letter 3: County of Kern Public Works Department, Floodplain Management Section (September 23, 2021)

**3-A** The commenter states that the Draft EIR for the project has been reviewed and the following comments are provided:

> *The runoff of storm water from the site will be increased due to the increase in impervious surface generated by the proposed development.*
>
> *The subject property is subject to flooding.*

In response, the Draft EIR identifies that the proposed project will result in an increase in impervious surfaces, which in turn, would result in an increase in stormwater runoff. Changes in drainage patterns on site that relate to the installation of new facilities, particularly changes that result in flow concentration, could increase the occurrence of localized flooding on site or downstream. The proposed new impervious surfaces could generate additional stormwater runoff on site and exacerbate potential increases in localized flooding on site or downstream.

According to FEMA, the majority of the project site is located within an area of minimal flood hazard (Appendix G). However, approximately 25% of the area proposed for development is located in a 100-year flood area (Zone A). As noted in the Hydrology Study prepared for the project provided as Appendix G of the Draft EIR, soils within the project boundaries are classified as hydrological soils that are capable of sustaining percolation rates for flood mitigation. Hydraulic calculations performed in accordance with the Kern County Hydrology Manual indicate potential flood depths on site would be moderate, ranging from 0 to 1.75 feet above ground surface (Appendix G).

As described in proposed Mitigation Measure MM 4.10-1 (outlined in Section 4.10, *Hydrology and Water Quality* of the EIR*)*, a final design-level drainage plan would be completed for the project, which would include runoff calculations and design features developed in accordance with Kern County Development Standards, the Kern County Grading Ordinance, the Kern County Floodplain Ordinance, and the Kern County Code of Building Regulations. The final drainage plain would ensure appropriate drainage for the project site and that any proposed development within the flood area (Zone A) would be designed to limit obstructions and impacts related to the floodplain. Specifically, the final drainage plan would ensure that design of the solar arrays 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 would also be graded to direct potential flood waters without increasing water surface elevations more than 1 foot or as required by Kern County's Floodplain Ordinance. With implementation of MM 4.10-1, final design of proposed stormwater management facilities and post-construction BMPs would be reviewed and approved by the County. Final drainage plans and design would verify that the project would not result in a significant impact to the floodplain due to construction or operation of the project. The EIR found that with the implementation of MM 4.10-1, impacts related to storm water runoff and flooding would be less than significant. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**3-B** The commenter requests that the following be included as Conditions of Approval for this project:

> *The applicant shall provide a plan for the disposal of drainage waters originating on site and from adjacent road right-of-ways (if required), subject to approval of the Public Works Department, per the Kern County Development Standards.*
>
> *Associated flood hazard requirements will need to be incorporated into the design of this project per the Kern County Floodplain Management Ordinance.*

In response, please refer to response to comment 3-A. Implementation of Mitigation Measure MM 4.10-1, would require a final design-level drainage plan to be completed for the project prior to issuance of a grading permit, which would include runoff calculations and design features developed in accordance with Kern County Development Standards, the Kern County Grading Ordinance, the Kern County Floodplain Ordinance, and the Kern County Code of Building Regulations. The final drainage plain would ensure appropriate drainage for the project site and that any proposed development within the flood area (Zone A) would be designed to limit obstructions and impacts related to the floodplain. The project would be designed to comply with all setback requirements and would ensure that facilities are located in such a way to lessen their impact on drainage areas and associated water quality. This would decrease the potential of stormwater mixing with construction-related materials, and thus, avoid substantial degradation of water quality.

Furthermore, according to the Kern County Public Works Department NPDES applicability form, the project would be required to implement a SWPPP during construction as it would involve construction activities disturbing more than 1 or more acres. Per Mitigation Measure (MM) 4.7-4 in Section 4.7, *Geology and Soils*, of the Draft EIR, the SWPPP would include BMPs designed to prevent the occurrence of soil erosion and discharge of other construction-related pollutants that could contaminate water quality. The SWPPP would be applicable to all areas of the project, including solar development and the generation tie-line (gen-tie line) alignment. In addition, prior to the commencement of construction activities, the project applicant would be required to adhere to the requirements of the Kern County Grading Code. This includes implementation of various measures designed to prevent erosion and control drainage on site, thereby further preventing the potential sedimentation and subsequent degradation of stormwater. The project would also comply with the Kern County Grading Ordinance, which requires implementation of dust control during all grading operations and the use of temporary drainage and erosion control measures on site, as needed.

Therefore, with adherence to all existing regulations regarding erosion and site drainage, the proposed project would neither result in a substantial increase of stormwater runoff, nor flooding on- or off-site. As outlined in the Draft EIR, implementation of Mitigation Measures MM 4.10-1 and 4.7-4 would reduce impacts to a less-than-significant level. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment Letter 4


Office of the Fire Marshal
Kern County Fire Department

Fire Prevention
2820 M St. • Bakersfield, CA 93301 • www.kerncountyfire.org
Telephone 661-391-3310 • FAX 661-636-0466/67 • TTY Relay 800-735-2929


October 15, 2021

Kern County Planning and Natural Resources Department
2800 M St., Bakersfield, CA 93301
Attn.: Johnathan Jensen

**Re: Kern County Fire Department Comments Regarding Planning Department Project**

To Whom It May Concern,

The Kern County Fire Department (KCFD), as the local fire authority, has received a request for comments regarding Draft EIR Sandrini Solar Project. Upon initial review, it has been determined that all ground mounted solar array projects over 1MW will require Fire Department plan review prior to construction and meet requirements set forth in KCFD Solar Panel Standard. Solar array projects over 20MW will require special fee calculation from KCFD prior to permit issuance. All Battery Energy Storage Systems must be applied for directly with KCFD for separate permitting and pre-construction approval. All proposed batteries must be UL9540A 2019 4th Edition tested for large scale burns to determine adequate design and mitigation measures.

4-A

A more detailed review and project comments will be conducted when the building permit is pulled and plans are submitted to KCFD.

Please feel free to call our Fire Prevention Office at 661-391-3310 with any questions.

Sincerely,
Michael Nicholas
Assistant Fire Marshal
Kern County Fire Department

## Response to Comment Letter 4: Kern County Fire Department (October 15, 2021)

**4-A:** The commenter confirms review of the Draft EIR for the project, and states that upon initial review it has been determined that all ground mounted solar array projects over 1 MW will require Kern County Fire Department (KCFD) plan review prior to construction and meet requirements set forth in KCFW Solar Panel Standard. The commenter also states that solar projects over 20 MW will require special fee calculation from KCFD prior to permit issuance, and all Battery Energy Storage Systems must be applied for directly with KCFD for separate permitting and pre-construction approval and testing. In conclusion, the commenter states that a more detailed review and project comments will be conducted when the building permits are pulled, and plans are submitted to KCFD.

In response, as outlined in Section 4.18, *Wildfire* of the EIR, prior to the issuance of grading or building permits, the project proponent/operator would be required to develop and implement a Fire Safety Plan for use during construction, operation, and decommissioning, as discussed in Section 4.14, *Public Services*, Mitigation Measure MM 4.14-1. The Fire Safety Plan will include provisions for staff training, equipment availability, and notification procedures and emergency fire precautions to help reduce fire risks and the consequential need for fire protection services on site. Furthermore, the Fire Safety Plan would contain notification procedures and emergency fire precautions consistent with the 2019 California Fire Code and Kern County Fire Code. The Fire Safety Plan would be for use during the 12- to 18-month construction period and would include emergency fire precautions for vehicles and equipment, as well as implementing fire rules and trainings so temporary employees are equipped to support handling fire threats.

In addition to the required fee for permit issuance from the Kern County Fire Department, the project operator would be required to pay a Kern County Cumulative Impact Charge (CIC), through implementation of MM 4.14-2. Payment of the CIC would provide funding for the County budget for services that are not funded due to the State of California Active Solar Energy Exclusion provision on property taxes that the County would otherwise receive for services and facilities, thereby supporting the provision of adequate public services and facilities. Therefore, potential operational impacts on fire protection services would be reduced to less than significant with implementation of MM 4.14-1 and MM 4.14-2, and the project would not result in the need for new or physically altered KCFD facilities.

All project facilities would be designed and constructed in accordance with the California Fire Code and Kern County Fire Code such that fire hazards would be reduced and/or avoided. The proposed project would comply with all applicable wildland fire management plans and policies established by CAL FIRE and the KCFD. The Lead Agency acknowledges that the project will require KCFD review and that the KCFD would be the responsible regulatory authority for the project. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

Comment Letter 5

KERN COUNTY
Public Health Services
DEPARTMENT

**BRYNN CARRIGAN**
DIRECTOR

**KRISTOPHER LYON, MD**
HEALTH OFFICER

2700 M STREET, SUITE 300 BAKERSFIELD, CALIFORNIA 93301-2370 661-862-8740 WWW.KERNPUBLICHEALTH.COM

# INTEROFFICE MEMORANDUM

To: Johnathan Jensen Date: October 22, 2021
From: Dayana Torres
Subject: Draft EIR for Sandrini Solar Project by EDPR CA Solar Park (EDP Renewables) (SCH #2021040761)

The Kern County Environmental Health Division has reviewed the above referenced project. This Division has the local regulatory authority to enforce state regulations and local codes as they relate to waste discharge, water supply requirements, and other items that may affect the health and safety of the public or that may be detrimental to the environment. 5-A

The Environmental Health Division requests that the following conditions be placed on the subject project and be satisfied prior to issuance of building permits: 5-B

1. Please log in to the California Environmental Reporting System (CERS) at http://cers.calepa.ca.gov/ and create an account and facility. If you have questions on what needs to be uploaded please contact Bilal Korin at (661)862-8730 or korinb@kerncounty.com
2. The method of water supply and sewage disposal for the proposed project shall be approved by Kern County Environmental Health Division.
3. If any abandoned wells are found during the grading and construction process, the applicant shall contact the Land and Water Division for permitting and destruction procedures.

## Response to Comment Letter 5: Kern County Public Health Services Department, Environmental Health Division (October 22, 2021)

**5-A:** The commenter confirms review of the Draft EIR for the project and describes the Kern County Public Health Services Department role, which is to enforce state regulations and local codes as they relate to waste discharge, water supply requirements, and other items that may affect the health and safety of the public or that may be detrimental to the environment. In response, the Lead Agency acknowledges that the EHD is the responsible agency to enforce State regulations and local codes as they relate to waste discharge, water supply requirements and other items affecting public health. This comment does not raise a substantive issue on the content of the Draft EIR, and revisions to the Draft EIR are not necessary.

**5-B:** The commenter states the Environmental Health Division requests that the following conditions be placed on the subject project and be satisfied prior to issuance of building permits:

1. Create an account and facility on the California Environmental Reporting System (CERS)
2. The method of water supply and sewage disposal for the proposed project shall be approved by Kern County Environmental Health Division.
3. If any abandoned wells are found during the grading and construction process, the applicant shall contact the Land and Water Division for permitting and destruction procedures.

In Response, Mitigation Measure MM 4.9-2 requires registration with CERS and the preparation of a Hazardous Materials Business Plan. As discussed in Chapter 3, *Project Description,* the project would truck in water and utilize a privately owned well adjacent to the project parcels for construction and O&M water usage. A standard on-site septic tank and leach field would be used at the O&M building to dispose of sanitary wastewater from sinks and lavatories, designed to meet guidelines required by County laws, ordinances, regulations, and standards. As requested, approval of the water supply and sewage disposal by the Kern County Environmental Health Division will be included as a condition of approval of the requested Conditional Use Permit(s).

In compliance with EHD's request, as a condition of approval, the Conditional Use Permit(s) will require the project proponent to coordinate with Kern County Environmental Health Division if abandoned water wells are discovered during construction activities. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment Letter 6

**CRAIG M. POPE, P.E., DIRECTOR**
ADMINISTRATION & HUMAN RESOURCES
FINANCE & ENGINEERING
BUILDING & CODE
OPERATIONS

KERN COUNTY
PUBLIC WORKS

**2700 "M" STREET, Suite 400**
**BAKERSFIELD, CA 93301-2370**
Phone: (661) 862-5000
FAX: (661) 862-8851
Toll Free: (800) 552-5376 Option 5
TTY Relay: (800) 735-2929

Nobember 1, 2021

To: Lorelei Oviatt, Director
Planning and Natural Resources Department

Johnathan Jensen, Planner II

From: Brian Blacklock, County Surveyor
By: Andres Arias, Engineering Tech III Phone: 28959

Subject: Draft Environmental Impact Report for Sandrini Solar Project by EDPR CA Solar Park (SCH # 2021040761)

I have reviewed the above noted project DEIR and recommend the following conditions be placed on the Conditional Use Permits:

1. Prior to issuance of a building or grading permit: All survey monuments shall be tied out by a Licensed Land Surveyor. A corner record for each monument or record of survey shall be submitted to the County Surveyor for review and processing, per Section 8771 of the Professional Land Surveyor's (PLS) Act.

2. Prior to Final Inspection: All survey monuments that were destroyed during construction shall be re-set or have a suitable witness corner set. A post construction corner record for each monument re-set or a record of survey shall be submitted to the County Surveyor for processing, per Section 8771 of the Professional Land Surveyor's Act.

3. Upon completion of project: All survey monuments shall be accessible by a Licensed Land Surveyor or their representatives, with prior notice, per Section 8774 of the PLS Act and Civil Code 846.5 (a).

Thank you for the opportunity to review and comment on this project. Should you have any questions please contact me.

6-A

## Response to Comment Letter 6: Kern County Public Works Department, Building and Development – Development Review (November 1, 2021)

**6-A:** The commenter states that County Public Works Department – Development Review has reviewed the Draft EIR for the project and recommends the following conditions be placed on the Conditional Use Permits:

- *Prior to issuance of a building or grading permit, all survey monuments shall be tied out by a Licensed Land Surveyor. A corner record for each monument or record of survey shall be submitted to the County Surveyor for review and processing, per Section 8771 of the Professional Land Surveyor's (PLS) Act.*
- *Prior to final inspection, all survey monuments that were destroyed during construction shall be re-set or have a suitable witness corner set. A post construction corner record for each monument re-set or a record of survey shall be submitted to the County Surveyor for processing, per Section 8771 of the PLS Act.*
- *Upon completion of the project, all survey monuments shall be accessible by a Licensed Land Surveyor or their representatives, with prior notice, per Section 8774 of the PLS Act and Civil Code 846.5(a).*

The comment concludes with appreciation for the opportunity to review and comment on the project.

In response, the County Planning and Natural Resources Department acknowledges County Public Works Department - Development Review Division's requested conditions and confirms that all requested conditions will be included as a condition of approval for the requested Conditional Use Permits. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

# References

Battistone, C.L. Furnas B.J Anderson R.L Dinsdale J.L Cripe K.M. Estep J.A. Chun C.S.Y. Torres S.G. 2019. Population and Distribution of Swainson's Hawks (Buteo swainsoni) in California's Great Valley: A Framework for Long-Term Monitoring. Journal of Raptor Research. 53(3):253-265

California Department of Fish and Wildlife (CDFW). 1995. Staff Report regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California.

California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation.

California Natural Diversity Database (CNDDB). October 2021. State and Federally Listed Endangered, Threatened, and Rare Plants of California. California Department of Fish and Wildlife. Sacramento, CA.

Cypher, B.L. Van Horn Job, C.L. 2009. Permeable Fence and Wall Designs That Facilitate Passage By Endangered San Joaquin Kit Foxes. California State University, Stanislaus Endangered Species Recovery Program.

Cypher, B.L., Van Horn Job, C.L., Phillips, S. 2012. Conservation Strategies for San Joaquin Kit foxes in Urban Environments. Prepared for the U.S. Bureau of Reclamation. Agreement No. R11AP20502. January.

Cypher, B.L., Westall, T.L, Spencer, K.A., Meade, D.E., Kelly, E.C., Dart, J., and Van Horn Job, C.L. 2019. Response of San Joaquin kit fox to Topaz Solar Farms: Implications for Conservation of Kit foxes. Final Report. Prepared for BHE Renewables Topaz Solar Farms. February.

Environment Canada. 2009. Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region. Canadian Wildlife Service, Environment Canada, Prairie and Northern Region, Edmonton Alberta. 64p.

Huot, A.A. Bergman, D.L. 2007. Suitable and Effective Coyote Control Tools for the Urban/Suburban Setting. Wildlife Damage Management Conferences – Proceedings. 65.

Tennant, E. N., D. J. Germano, J. A. E. Stewart, H. S. Butterfield, and M. F. Westphal. 2018. Investigating blunt-nosed leopard lizard population size, demographics, space use, and future population trends on department ecological reserves. Lands Unit, Central Region California Department of Fish and Wildlife. Fresno, CA.

US Fish and Wildlife Service. 2006. Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California. Memorandum 8-14-2006-2887.

Woodbrige, B. 1998. Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight.