

Final Environmental Impact Report

SCH# 2021010168

Volume 7

Chapters 7 – Response to Comments

BELLEFIELD SOLAR PROJECT

By 50LW 8ME LLC (8Minute Energy) (PP20403)

General Plan Amendment No. 2, Map No. 195;
Zone Classification Change No. 2, Map No. 195;
Zone Classification Change No. 57, Map No. 196;
Conditional Use Permit No. 1, Map No. 195;
Conditional Use Permit No. 57, Map No. 196;
General Plan Amendment No. 3, Map No. 195 (Circulation);
Mojave Specific Plan Amendment No. 31, Map No. 196 (Circulation);
Non-summary Vacations of Public Access Easements



Kern County
Planning and Natural Resources Department
Bakersfield, California

September 2021

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**PLANNING AND NATURAL
RESOURCES DEPARTMENT**

Planning
Community Development
Administrative Operations

September 10, 2021

File: GPA #2, Map #195 and various others
S.D.: #2 - Scrivner

ADDRESSEE LIST (See Distribution List)

**RE: Response to Comments for Draft Environmental Impact Report – Bellefield Solar Project by
50LW 8ME LLC (8Minute Energy) (PP20403) (SCH #2021010168)**

Dear Interested Party:

Enclosed is a document entitled *Volume 7 - 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 September 23, 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,

A handwritten signature in black ink, appearing to read "Mark Tolentino", is written over a horizontal line.

Mark Tolentino, Planner II
Advanced Planning Division

COMMENTING AGENCIES AND INTERESTED PERSONS: California Department of Fish & Wildlife – Julie A. Vance; Kern County Fire Department - Office of the Assistant Fire Marshall, Michael Nicholas; Kern County Public Works Department - Floodplain Management Section, Brian Blase; U.S. Army Corps of Engineers – Sacramento District; California Department of Transportation – District 9, Gayle J. Rosander; SoCalGas; San Manuel Band of Mission Indians – Jamie Nord; Mary-Anne Hernandez; Desert Tortoise Council – Edward L. LaRue, Jr., M.S.; Kern Audubon Society – Franklin Bedard; Dr. Ranajit Sahu PhD; Eastern Kern Air Pollution Control District; California Native Plant Society – Isabella Long; County of Public Works Department – Finance and Engineering Division, Joshua Champlin

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Chapter 7

Response to Comments

SCH# 2021010168

Volume 7

**Bellefield Solar Project
by 50LW 8ME LLC (8Minute Energy) (PP20403)**

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Planning and Natural Resources Department
Bakersfield, California

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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 Bellefield 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. 2021020513) was circulated for a 30-day public review period beginning on January 15, 2021 and ending February 15, 2021. Nineteen individual written comment letters were received. Additionally, seven comments were received at the February 5, 2021 public scoping meeting, held virtually via the TEAMS online application. All public comments received relevant to CEQA-related issues were considered by the County in preparing the Draft EIR.

The Draft EIR for the proposed project was circulated for a 45-day public review period beginning on July 2, 2021 and ending August 16, 2021. A total of thirteen (13) comment letters were received on the Draft EIR during this period. Two (2) additional comment letters were received on the Draft EIR following the close of the public review period.

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 7, Chapter 7 of the Draft EIR. Volumes 1, 2, 3, 4, 5, 6, and 7 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 underline and text removed from the Draft EIR is shown with ~~striketrough~~. 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).

Global Changes: The following “global changes” are intended to apply to the Draft EIR in all instances where such text shown below appears within the document. The text revisions are not repeated herein for each occurrence within the Draft EIR in order to streamline this document.

- Frame for figures updated to correct “Belleville” to “Bellefield” in the project name.

Executive Summary, Section 1.5.1, Regional Setting, Page 1-12:

More specifically, the project is located as follows: Township 11N, Range 11W, all or portions of Sections 5, 6, 7, 17, 18, 19, 20, 21 (all), 22, 25, 26, 27, ~~28~~, 29, 30, 31, 32, ~~33~~, 34, and 35 and Township 11N, Range 12W, portions of Sections 1 and 2, San Bernardino Base and Meridian (**Figure 3-2, Project Site Boundaries**).

Chapter 1, Executive Summary, Table 1-3; Page 1-23:

Impact	Mitigation Measures
Land Use Planning (Project and Cumulative)	MM 4.9-6KC and MM 4.9-6CC5CC; MM 4.11-1KC, MM 4.11-1CC, MM 4.11-2KC, and MM 4.11-2CC

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-39 to 1-42:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.1-3: The project would substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.</p>	<p>Significant and unavoidable</p>	<p>Kern County:</p> <p>MM 4.1-1KC: Prior to issuance of a grading or building permit, a Maintenance, Trash Abatement, and Pest Management Program shall be submitted for review and approval to the Kern County Planning and Natural Resources Department. The program shall include, but not be limited to the following:</p> <ul style="list-style-type: none"> a. The project proponent/operator shall clear debris from the project area at least four times per year; this can be done in conjunction with regular panel washing and site maintenance activities. b. The project proponent/operator shall erect signs with contact information for the project proponent/operator's maintenance staff at regular intervals along the site boundary, as required by the Kern County Planning and Natural Resources Department. Maintenance staff shall respond within two weeks to resident requests for additional cleanup of debris. Correspondence with such requests and responses shall be submitted to the Kern County Planning and Natural Resources Department. c. The project proponent/operator shall implement a regular trash removal and recycling program on an ongoing basis during construction and operation of the project. Barriers to prevent pest/rodent access to food waste receptacles shall be implemented. Locations of all trash receptacles during operation of the project shall be shown on final plans. d. Trash and food items shall be contained in closed secured containers at the end of the day and removed at least once per week to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs. <p>MM 4.1-2KC: The project proponent shall install metal fence slats or similar view-screening materials, as approved by the Kern County Planning and Natural Resources Department, in all on-site perimeter fencing for any portion of the solar site that is adjacent to parcels zoned for residential use, including E (Estate Residential), E (2 1/2) MH (Estate 2.5 Acres Mobile Home Combining), R-1 (Low-Density Residential), R-2 (Medium-Density</p>	<p>Significant and unavoidable</p>

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Residential), R-3 (High-Density Residential), or PL (Platted Lands) zoning unless the adjacent property is owned by the project proponent (to be verified by the Kern County Planning and Natural Resources Department) or a public or private agency that has submitted correspondence to the Kern County Planning and Natural Resources Department requesting this requirement be waived. Should the project proponent sell the adjacent property, slat fencing or similar view-screening materials shall be installed prior to the sale.</p> <p>MM 4.1-3KC: Prior to the issuance of the building permit for the solar facility, the project proponent/operator shall submit a proposed color scheme and treatment plan, for review and approval by the Kern County Planning and Natural Resources Department, that will ensure all project facilities including operations and maintenance buildings, gen-tie poles, array facilities, etc. blend in with the colors found in the natural landscape. All color treatments shall result in matte or nonglossy finishes.</p> <p>MM 4.1-4KC: Wherever possible, within the proposed project boundary, the natural vegetation shall remain undisturbed unless mowing is necessary for placement of the project components. All natural vegetation adjacent to the proposed project boundary shall remain in place as permitted by Fire Code. Prior to the commencement of project operations and decommissioning, the project proponent/operator shall submit a Landscape Revegetation and Restoration Plan for the project site to the Kern County Planning and Natural Resources Department for review and approval. The plan shall include the measures detailed below.</p> <ol style="list-style-type: none"> In areas temporarily disturbed during construction and decommissioning (including grading or removal of root balls resulting in loose soil), the ground surface shall be revegetated with a native seed mix or native plants (including Mohave creosote scrub habitat) or allowed to revegetate with the existing native seed bank in the topsoil reestablish vegetation. Areas that contain permanent features such as perimeter roads, maintenance roads or under arrays do not require revegetation. The plan must include but is not limited to: (1) the approved California native seed mix that will be used on-site; (2) a timeline for seeding the site; (3) the details of which areas are to be revegetated; (4) a list of the consultation efforts completed; (5) the methods and schedule for installation of fencing that complies with wildlife agency regulations; and (6) a clear prohibition of the use of toxic rodenticides. 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>c. During decommissioning and site restoration, ground cover shall include native seed mix and shall be spread where earthmoving activities have taken place, as needed to establish revegetation. The seed mix or native plants shall be determined through consultation with professionals such as landscape architect(s), horticulturist(s), botanist(s), etc. with local knowledge as shown on submitted resume and shall be approved by the Kern County Planning and Natural Resources Department prior to planting. Phased seeding may be used if a phased construction approach is used (i.e., the entire site need not be seeded all at the same time).</p> <p>d. Vegetation/ground cover shall be continuously maintained on the site by the project operator.</p> <p>e. The revegetation and restoration of the site shall be monitored annually for a three-year period following restoration activities that occur post-construction and post-decommissioning. Based on annual monitoring visits during the three-year periods, an annual evaluation report shall be submitted to the Kern County Planning and Natural Resources Department for each of the three years. Should efforts to revegetate with the existing native seed bank in the top soil prove in the second year to not be successful, reevaluation of revegetation methods shall be made in consultation with the Kern County Planning and Natural Resources Department and an additional year shall be added to the monitoring program to ensure coverage is achieved. The three-year monitoring program is intended to ensure the site naturally achieves native plant diversity, establishes perennials, and is consistent with conditions prior to implementation of the proposed project, where feasible.</p> <p>Gen-Tie</p> <p>Implement Mitigation Measure MM 4.1-1KC and MM 4.1-3KC.</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-42:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.1-4: The project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.</p>	<p>Potentially significant</p>	<p>Kern County</p> <p>MM 4.1-5KC: Prior to final activation of the solar facility, the project proponent shall demonstrate to Kern County Planning and Natural Resources Staff that the project site complies with the applicable provisions of the Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance), and shall be designed to provide the minimum illumination needed to achieve safety and security objectives. All lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Lenses and bulbs shall not be exposed or extend below the shields.</p> <p>MM 4.1-6KC: Prior to the issuance of building permits, the project proponent shall demonstrate the solar panels and hardware are designed to minimize glare and spectral highlighting. Emerging technologies shall be used, such as diffusion coatings and nanotechnological innovations, to effectively reduce the refractive index of the solar cells and protective glass. These technological advancements are intended to make the solar panels more efficient with respect to converting incident sunlight into electrical power while also reducing the amount of glare generated by the panels. Specifications of such designs shall be submitted to the Kern County Planning and Natural Resources Department for review and final approval.</p> <p>MM 4.1-7KC: Prior to final activation of the solar facility, the project operator shall demonstrate that the Operations and Maintenance (O&M) building, energy storage facilities, gen-tie facilities, and collector facilities utilize materials that minimize glare, as approved by the Kern County Planning and Natural Resources Department. Prior to final activation of the solar facility, the project operator shall demonstrate that the O&M building, energy storage facilities, gen-tie facilities, and collector facilities all on-site buildings utilize materials that minimize glare, non-reflective materials, as approved by the Kern County Planning and Natural Resources Department.</p> <p>Gen-Tie</p> <p>Implement Mitigation Measure MM 4.1-5KC through MM 4.1-7KC.</p>	<p>Less than significant</p>

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-43 to 1-47:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.3-1: The project would conflict with or obstruct implementation of the applicable air quality plan.</p>	<p>Potentially significant</p>	<p>Kern County:</p> <p>a. MM 4.3-1KC: The project operator shall ensure that construction, operation, and decommissioning of the proposed project shall be conducted in compliance with applicable rules and regulations set forth by the Eastern Kern Air Pollution Control District (EKAPCD). The project operator shall develop a fugitive dust control plan (Plan) for the project. The Plan shall address short-term construction and long-term operational activities. The Plan shall be endorsed by the Eastern Kern Air Pollution Control District (EKAPCD) prior to the start of any earthmoving activity. The project operator shall also develop a decommissioning fugitive dust control plan (Decommissioning Plan) for the project if a decision is made to decommission and remove the solar facilities in the future. The Decommissioning Plan shall be endorsed by the Eastern Kern Air Pollution Control District EKAPCD prior to any decommissioning activities.</p> <p>b. Dust control measures outlined below shall be implemented where they are applicable and feasible. The list shall not be considered all-inclusive and any other measures to reduce fugitive dust emissions not listed shall be encouraged:</p> <p>a. e. The following dust control measures shall be implemented during land preparation, excavation, and/or demolition:</p> <p>d1. All soil excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed soil areas. Watering shall take place a minimum of three times daily on disturbed soil areas with active operations, unless dust is otherwise controlled by rainfall or use of a dust palliative.</p> <p>e2. All disturbed areas on the project site and proposed transmission corridor shall be watered as frequently as necessary during grading; and after active construction activities shall be stabilized with a non-toxic soil stabilizer or soil weighting agent, or alternative approved soil stabilizing methods. The frequency of watering can be reduced or eliminated during period of precipitation.</p>	<p>Less than significant</p>

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>3. All unpaved construction and operation/maintenance site roads, as they are being constructed, shall be stabilized with a non-toxic soil stabilizer or soil weighting agent.</p> <p>4. All clearing, grading, earth moving, and excavation activities shall cease during periods of winds greater than 20 miles per hour (averaged over one hour), or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures or neighboring property, or as identified in a plan approved by the Eastern Kern Air Pollution Control District (EKAPCD).</p> <p>5. All trucks entering or leaving the project site shall cover all loads of soils, sands, and other loose materials, or be thoroughly wetted with a minimum freeboard height of six inches.</p> <p>6. Areas disturbed by clearing, earth-moving, or excavation activities shall be minimized at all times.</p> <p>7. Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method to prevent wind-blown fugitive dust.</p> <p>8. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or shall be treated with appropriate dust suppressant compounds.</p> <p>9. Prior to construction, wind breaks (such as chain-link fencing including a wind barrier) shall be installed where appropriate.</p> <p>10. Where acceptable to the Kern County Fire Department and California City Fire Department, weed control shall be accomplished by mowing instead of disking, thereby, leaving the ground undisturbed and with a mulch covering.</p> <p>b. After clearing, grading, earth-moving and/or excavating is completed within any portion of the project site, the following dust control practices shall be implemented during site construction:</p> <ol style="list-style-type: none"> Once initial leveling has ceased, all inactive soil areas within the construction site shall be immediately treated with a dust palliative. 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ol style="list-style-type: none"> 2. Dependent on specific site conditions (season and wind conditions), revegetation shall occur in those areas so planned as soon as practical after installation of the solar panels. 3. All unpaved road areas shall be treated with a dust palliative or graveled to prevent excessive dust. eg. During all phases of construction, the following vehicular control measures shall be implemented: <ol style="list-style-type: none"> 1. No vehicle shall exceed 10 miles per hour on unpaved areas within the project site, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. 2. Visible speed limit signs shall be posted at the project site entrance(s). 3. All areas with vehicle traffic, especially the main entrance roadway to the project site, shall be graveled or treated with dust palliatives so as to prevent track-out onto public roadways. 4. All vehicles that are used to transport solid bulk material on public roadways and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least one foot of freeboard. 5. Streets adjacent to the project site shall be kept clean and project related accumulated silt shall be removed on a regular basis. The use of either dry rotary brushes (unless prior wetting) or blower devices is prohibited. 6. Access to the project site shall be by means of an apron into the facility site from adjoining surfaced roadways. The apron shall be surfaced or treated with dust palliatives. If operating on soils that cling to the wheels of vehicles, a grizzly, wheel washer, or other such device shall be used on the road exiting the facility site, immediately prior to the pavement, in order to remove most of the soil material from vehicle tires. 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>p. MM 4.3-2KC: The project operator and/or its contractor(s) shall implement the following measures during construction of the proposed project on the project site:</p> <p>qa. All equipment shall be maintained in accordance with the manufacturer's specifications.</p> <p>rb. Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. Equipment shall be shut down when not in use for extended periods of time.</p> <p>sc. No individual piece of construction equipment shall operate longer than eight cumulative hours per day.</p> <p>td. Electric equipment shall be used whenever feasible in lieu of diesel or gasoline-powered equipment.</p> <p>u. All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions.</p> <p>v. On-road and off-road diesel equipment shall use diesel particulate filters if permitted under manufacturer's guidelines.</p> <p>MM 4.3-3KC: The project operator shall continuously comply with the following measures during construction and operation to control NOx emissions from on-road heavy-duty diesel haul vehicles that are contracted on a continuing basis for use to haul equipment and materials for the proposed project:</p> <p>a. 2006 engines or pre-2006 engines with California Air Resources Board-certified Level 3 diesel emission controls will be used to the extent possible.</p> <p>b. All on-road construction vehicles, except those meeting the 2006/California Air Resources Board certified Level 3 diesel emissions controls, shall meet all applicable California on-road emission standards to the greatest extent possible. This does not apply to worker personal vehicles.</p> <p>e. All on-road construction vehicles, except those meeting the 2006/California Air Resources Board-certified Level 3 diesel emissions controls, shall meet all applicable California on-road</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>emission standards and shall be licensed in the State of California. This does not apply to worker personal vehicles.</p> <p>d. The construction contractor shall ensure that all on-road construction vehicles are properly tuned and maintained in accordance with the manufacturer's specifications.</p> <p>MM 4.3-4KC: The project operator shall continuously comply with the following measures during operation to control fugitive dust emissions:</p> <p>a. The unpaved main access road for employees and deliveries to the maintenance complex shall be paved or effectively stabilized using soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than California Air Resources Board approved soil stabilizers, and that shall not increase any other environmental impacts including loss of vegetation</p> <p>b. The other unpaved roads at the project site shall be stabilized using water or soil stabilizers so that vehicle travel on these roads does not cause visible dust plumes.</p> <p>c. Traffic speeds on unpaved roads shall be limited to no more than 10 miles per hour, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. Traffic speed signs shall be displayed prominently at all site entrances and at egress point(s) from the central maintenance complex.</p> <p>Gen-Tie</p> <p>Implement Mitigation Measures MM 4.3-1KC through MM 4.3-3KC4KC.</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-48 to 1-49:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.3-2: The project would expose sensitive receptors to substantial pollutant concentrations.</p>	<p>Significant and unavoidable</p>	<p>Kern County</p> <p>Implement Mitigation Measure MM 4.1-4KC (see Section 4.1, Aesthetics for full text), Mitigation Measures MM 4.3-1KC through MM 4.3-4KC</p> <p>MM 4.3-5KC: At the time of project implementation, a COVID-19 Health and Safety Plan should be prepared in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. A copy of the COVID-19 Health and Safety Plan shall be submitted to the Kern County Planning and Natural Resources Department for review and approval. At the time of project implementation, the Kern County Public Health and Service Department shall determine if the COVID-19 pandemic is still present at a level where spread to sensitive receptors could occur. If determined necessary by the Kern County Public Health and Service Department, a COVID-19 Health and Safety Plan shall be prepared in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. A copy shall be submitted to the Kern County Planning Department and California City Community Development Department for review and approval.</p> <p>MM 4.3-6KC: 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:</p> <ol style="list-style-type: none"> Equipment, vehicles, and other items shall be thoroughly cleaned of dust before they are moved off site to other work locations. 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. The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area. 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. To the greatest extent feasible, heavy-duty earth-moving vehicles shall be closed-cab and equipped with a HEP-filtered air system. 	<p>Significant and unavoidable</p>

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>f. Workers shall receive training in procedures to minimize activities that may result in the release of airborne <i>Coccidioides immitis</i> 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.</p> <p>g. A Valley Fever informational handout shall be provided to all on-site 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.</p> <p>h. On-site 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 on-site personnel, upon request. When exposure to dust is unavoidable, provide appropriate respiratory protection, approved by the National Institute for Occupational Safety and Health (OSHA), to affected workers. If respiratory protection is deemed necessary, employers must develop and implement a respiratory protection program in accordance with Cal/OSHA's Respiratory Protection standard (8 CCR 5144).</p> <p>MM 4.3-7KC: Prior to the issuance of grading permits, a one-time fee shall be paid to the Kern County Public Health Services Department in the amount of \$3,200 for Valley Fever public awareness programs.</p> <p>Gen-Tie</p> <p>Implement Mitigation Measures MM 4.1-4KC and MM 4.3-1KC through MM 4.3-7KC.</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-50:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.3-4: The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.	Significant and unavoidable	<p>Kern County</p> <p>Implementation of Mitigation Measures MM 4.3-1KC through MM 4.3-7KC4KC (refer to Impact 4.3-1) and MM 4.3-5KC through MM 4.3-7KC (refer to Impact 4.3-2).</p> <p>Gen-tie</p> <p>Implementation of Mitigation Measures MM 4.3-1KC through MM 4.3-7KC4KC (refer to Impact 4.3-1) and MM 4.3-5KC through MM 4.3-7KC (refer to Impact 4.3-2).</p>	Significant and unavoidable

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-50 to 1-70:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.4-1: The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or a special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS.	Potentially significant	<p>Kern County</p> <p>Implement Mitigation Measure MM 4.1-5KC (see Section 4.1, Aesthetics, for full Mitigation Measure text), regarding compliance with the Kern County Dark Skies Ordinance.</p> <p>MM 4.4-1KC: Prior to the issuance of grading or building permits, the project operator shall retain a Lead Biologist who meets the qualifications of an Authorized Biologist as defined by United States Fish and Wildlife Service and California Department of Fish and Wildlife to oversee compliance with protection measures for all listed and other special-status species. The project Lead Biologist shall be on-site during all fencing and ground disturbance activities throughout the construction phase. The project Lead Biologist shall have the right to halt all activities that are in violation of the special-status species protection measures described herein. Work shall proceed only after hazards to special-status species are removed and the species is no longer at risk. The project Lead Biologist shall have in her/his possession a copy of all the compliance measures while work is being conducted on-site.</p>	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM 4.4-2KC: Prior to the issuance of grading or building permits, and for the duration of construction activities, all new construction workers at the project site shall attend a Worker Environmental Awareness Program (WEAP), developed and presented by the project Lead Biologist. As part of the WEAP <u>Worker Environmental Awareness Program</u> training, the project Lead Biologist shall perform the following training-related tasks:</p> <ul style="list-style-type: none"> a. Provide the training materials for WEAP <u>Worker Environmental Awareness Program</u> training. These materials shall include the measures and mitigation requirements for protected plant and wildlife species (e.g., avoidance and buffer requirements, nighttime construction limitations), and applicable fire protection measures. WEAP <u>Worker Environmental Awareness Program</u> training shall also include driver training to avoid and minimize collision risks with protected species, and reporting protocols in the event that any dead or injured wildlife are discovered. b. Send a copy of all WEAP <u>Worker Environmental Awareness Program</u> training materials to the Kern County Planning and Natural Resources Department. c. Maintain a list on-site of all employees who have undergone WEAP <u>Worker Environmental Awareness Program</u> training. A copy of this list shall be provided to the Kern County Planning and Natural Resources Department as necessary. <p>MM 4.4-3KC: The Worker Environmental Awareness Program (WEAP) shall be presented by the Lead Biologist and shall include information on the life history of each federal and state-listed species, as well as other special-status wildlife, natural communities, and plant species that may be encountered during construction activities, their legal protections, the definition of “take” under the federal and State Endangered Species Acts, measures the project operator is implementing to protect special-status species, reporting requirements, specific measures that each worker shall employ to avoid take of special-status wildlife species, and penalties for violation of the acts. Training shall be documented as follows:</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> a. An acknowledgement form signed by each worker indicating that environmental training has been completed. b. A sticker that shall be placed on hard hats indicating that the worker has completed the environmental training. Construction workers shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker. c. A copy of the training transcript/training video and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgements forms shall be submitted to the Kern County Planning and Natural Resources Department. <p>MM 4.4-4KC: During construction and decommissioning the anticipated impact zones, including staging areas, equipment access, and disposal or temporary placement of spoils, shall be delineated with stakes and flagging prior to construction to avoid natural resources where possible. Construction-related activities outside of the impact zone shall be avoided. The construction crews and contractor(s) shall be held responsible for unauthorized impacts from construction activities to sensitive biological resources that are outside the areas defined as subject to impacts by project permits.</p> <p>MM 4.4-5KC: New and existing roads that are planned for either construction or widening shall not extend beyond the planned impact area. All vehicles passing or turning around shall do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, a biological resources survey shall be conducted by the Lead Biologist or by biological monitor(s) under the Lead Biologist's supervision to determine if listed or special-status species would be impacted. Impacts shall be avoided to the maximum extent practicable or shall be fully mitigated for. Construction shall not begin until the route is cleared for biological resources. The route shall be clearly marked (i.e., flagged and/or staked) prior to the onset of construction and use.</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM 4.4-6KC: Spoils shall be stockpiled in disturbed areas. Stockpile areas shall be marked to define the limits where stockpiling can occur. Standard best management practices shall be employed to prevent loss of habitat due to erosion caused by project-related impacts (i.e., grading or clearing for new roads). All detected erosion shall be remedied within two days of discovery.</p> <p>Spoils shall be stockpiled in existing disturbed areas. Stockpile areas shall be marked to define the limits where stockpiling can occur. Standard best management practices shall be employed to prevent loss of habitat due to erosion caused by project-related impacts (i.e., grading or clearing for new roads). All detected erosion shall be remedied within two days of discovery.</p> <p>MM 4.4-7KC: All ground disturbance construction and decommissioning activities shall be monitored by the qualified Lead Biologist or by biological monitors under the Lead Biologist's supervision to ensure compliance with avoidance and minimization measures.</p> <p>MM 4.4-8KC: The project operator and/or contractor shall implement the following during project decommissioning:</p> <ul style="list-style-type: none"> a. All applicable construction phase general protection measures shall be implemented during decommissioning. b. A 25<u>15</u>-mile-per-hour speed limit on paved or stabilized unpaved roads shall be applied for travel during decommissioning activities. Travel shall be confined to existing roads and previously disturbed areas. c. If any special-status wildlife is detected in the work area during decommissioning activities, no work shall be conducted until the individual moves on its own outside of the work area. d. Work outside areas with desert tortoise exclusion fencing shall only occur during daylight hours. <p>MM 4.4-9KC: During construction and decommissioning the project operator and/or contractor shall implement the following general avoidance and protective measures:</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>a. Prior to issuance of grading or building permits but after consulting with the United States Fish and Wildlife Service and California Department of Fish and Wildlife, the solar facility project site shall be fenced with a permanent desert tortoise exclusion fence to keep any desert tortoises and Mohave ground squirrels that may be using habitat adjacent to the facility from entering during construction, operations and maintenance, and dismantling and restoration (decommissioning) phases. The project proponent shall submit a fencing plan that outlines the location, type of fence, and construction methods to United States Fish and Wildlife Service and California Department of Fish and Wildlife for review. The fencing type shall follow current fence specifications established by the United States Fish and Wildlife Service. Desert tortoise-proof gates shall be established at all photovoltaic solar facility entry points, unless otherwise approved by United States Fish and Wildlife Service and California Department of Fish and Wildlife. Workers installing the exclusion fencing shall have undergone the worker training program mandated in Mitigation Measure MM 4.4-2KC and a biological monitor under the authority of the project Lead Biologist shall be present during exclusion fencing installation.</p> <p>b. The fencing shall be routinely inspected with inspections after precipitation events of more than 1 inch at each ephemeral drainage crossing. Any damage to the fencing shall be repaired immediately or no later than 2 days following the observation.</p> <p>c. Following the construction of exclusion fencing around the solar facility perimeters, clearance surveys shall be conducted by the Lead Biologist to ensure that no desert tortoises, Mohave ground squirrels, or other listed wildlife species are trapped within the fenced area. The Lead Biologist may be assisted by biological monitors under the supervision of the Lead Biologist. The clearance surveys shall be conducted no more than 30 days prior to ground disturbing activities associated with construction, O&M, or decommissioning. Clearance surveys shall adhere to the current United States Fish and Wildlife Service clearance survey protocols described in the Desert Tortoise Field Manual, including a minimum of two clearance passes to be</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>completed after desert tortoise-proof fencing is installed, which shall coincide with heightened desert tortoise activity from late March through May and September through October <u>or as outlined in the Project's Habitat Conservation Plan or Incidental Take Permit.</u> The Designated Biologist(s) shall perform pre activity surveys for desert tortoise and shall remain on-site daily until the construction period ends or exclusion fencing has been installed to preclude desert tortoises from entering a given work area (work area is completely enclosed with exclusionary fence). <u>The Designated Biologist will remain available even after the fence is installed and be called to the site if a tortoise or Mohave ground squirrel is found inside the fence, emphasizing in the tortoise awareness program that only agency-authorized biologists, not construction workers, are allowed to handle tortoises.</u> The Designated Biologist shall monitor the exclusionary fence on a weekly basis after its installation to ensure its integrity and function are maintained until the end of construction. United States Fish and Wildlife Service and California Department of Fish and Wildlife may impose modified or additional fencing requirements in the project's final 2081 Permit and/or Habitat Conservation Plan, if required.</p> <p>d. If a desert tortoise or Mohave ground squirrel is found on the site during project construction, operation, or decommissioning, activity shall cease in the vicinity of the animal and the desert tortoise and/or Mohave ground squirrel shall be passively restricted to the area encompassing its observed position on the construction site and its point of entry shall be determined if possible. The Lead Biologist shall install a temporary tortoise-proof fence around this area. Concurrent with this effort, United States Fish and Wildlife Service and California Department of Fish and Wildlife shall be consulted regarding any additional avoidance, minimization, or mitigation measures that may be necessary. Once the desert tortoise and/or Mohave ground squirrel is observed leaving the site, work in the area can resume. A report shall be prepared by the Lead Biologist to document the activities of the desert tortoise and/or Mohave ground squirrel within the site; all fence construction, modification, and repair efforts; and movements of the desert tortoise and/or Mohave ground squirrel once again outside the</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>permanent tortoise-proof fence. This report shall be submitted to wildlife and resource agency representatives and the Kern County Planning and Natural Resources Department. If passive relocation is not possible, desert tortoise and/or Mohave ground squirrel may also be translocated in accordance with an United States Fish and Wildlife Service and/or California Department of Fish and Wildlife approved Translocation Plan.</p> <p>e. Outside permanently fenced desert tortoise exclusion areas where desert tortoise may be present, the project operator shall limit the areas of disturbance in desert tortoise and Mohave ground squirrel habitat. Parking areas, new roads, pulling sites, and locations for staging, storage, excavation, and disposal shall be confined to the smallest areas possible. These areas shall be flagged, and disturbance activities, vehicles, and equipment shall be confined to these flagged areas.</p> <p>f. The Lead Biologist or biological monitor shall monitor any ground-disturbance activities that occur outside the desert tortoise exclusion fencing. Work outside areas with desert tortoise exclusion fencing shall only occur during daylight hours where desert tortoise are determined to be present.</p> <p>MM 4.4-10KC: During construction the project operator and/or contractor shall implement the following general avoidance and protective measures:</p> <p>a. The Lead Biologist or biological monitor shall monitor all ground-disturbance activities. Work shall only occur during daylight hours as practicable. Specialized testing activities, work on the project gen-tie line, and/or continuous operations (i.e., well drilling) may be conducted at night when necessary. Prior to conducting vegetation removal or grading activities inside the fenced area, a Lead Biologist or biological monitor under the supervision of a Lead Biologist shall survey the area immediately prior to conducting these activities to ensure that no listed or special-status animals or plants are present. The project Lead Biologist shall have the right to halt all activities that are in violation of the special species protection measures. Work shall proceed only after hazards to special species are removed and the species is no longer at risk. The project biologist shall have in her/his</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>possession a copy of all the compliance measures while work is being conducted on-site.</p> <p>b. At the end of each work day, the Lead Biologist shall ensure that all trenches, bores, and other excavations outside the permanently fenced area in suitable habitat for desert tortoise have been inspected for the presence of desert tortoise and backfilled, if no tortoise is present. If backfilling is not feasible, these excavations shall be modified to ensure that they cannot potentially entrap desert tortoises (e.g., equipped with desert tortoise escape ramps, covered to prevent desert tortoise access, enclosed with a desert tortoise exclusion fence). All construction pipes, culverts, or similar structures that are stored at a construction site for one or more overnight periods and with a diameter of four inches or greater shall be thoroughly inspected for listed and special-status wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a special-status animal is discovered inside a pipe that section of pipe shall not be moved until the animal has moved off on its own. If the animal does not move in a timely manner, then the appropriate resource agency shall be consulted.</p> <p>c. Any construction pipe, culvert, or similar structure stored within desert tortoise habitat (i.e., outside areas with desert tortoise exclusion fencing) shall be inspected for desert tortoise before the material is moved, buried, or installed.</p> <p>d. Water used for dust abatement shall be minimized, as allowed by Kern County Engineering, Surveying, and Permit Services Department, or managed in such a manner as to prevent the formation of puddles that could attract common ravens, predators, and other wildlife species to or near the site.</p> <p>e. No vehicle or equipment parked outside the fenced areas shall be moved prior to inspecting the ground beneath the vehicle or equipment for the presence of desert tortoise. If present, the desert tortoise shall be left to move on its own.</p> <p>f. Vehicular traffic to and from the project site shall use existing routes of travel. Cross country vehicle and equipment use outside designated</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>work areas shall be prohibited. Vehicle speeds within the project site shall not exceed 25 miles per hour on roads within desert tortoise habitat.</p> <ul style="list-style-type: none"> g. All vehicles and equipment shall be in proper working condition to ensure that there is no potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Lead Biologist shall be informed of any hazardous spills immediately and hazardous spills shall be cleaned up as soon as practical and the contaminated soil shall be properly disposed of at a licensed facility. h. A long-term trash abatement program shall be established for construction, operations, and decommissioning. Trash and food items shall be contained in closed containers and removed daily to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs. i. Workers shall be prohibited from bringing pets and firearms to the project and from feeding wildlife. j. Intentional killing or collection of either plant or wildlife species, including <u>both</u> listed species <u>and not listed species</u>, in the project site and surrounding areas shall be prohibited. The Lead Biologist, wildlife and resource agency representatives and Kern County Planning and Natural Resources Department shall be notified of any such occurrences within 24 hours. k. Construction monitoring shall be conducted by either the Lead Biologist or by biological monitors under the Lead Biologist's supervision. The biological monitors shall have experience in monitoring for special-status wildlife. l. During construction, daily monitoring reports shall be prepared by the monitoring biologists. The Lead Biologist shall prepare a summary monitoring report for the wildlife and resource agencies and Kern County Planning and Natural Resources Department on a monthly basis, documenting the effectiveness and practicality of the protection measures that are in place and making recommendations for modifying the measures to enhance species protection, as needed. The report shall also provide information on the overall biological resources-related 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>activities conducted, including the worker awareness training, clearance/pre-activity surveys, monitoring activities, and any observed special-status species, including injuries and fatalities.</p> <p>MM 4.4-11KC: The introduction of exotic plant species shall be avoided and controlled wherever possible and may be achieved through physical or chemical removal and prevention. Preventing exotic plants from entering the site via vehicular sources shall include measures such as implementing Trackclean or other method of vehicle cleaning for vehicles coming and going from the site. Earthmoving equipment shall be cleaned prior to transport to the project site. Weed-free rice straw or other certified weed-free straw shall be used for erosion control. Weed populations introduced into the site during construction shall be eliminated by chemical and/or mechanical means</p> <p>MM 4.4-12KC: In the event ground disturbance does not commence within two (2) years of the last rare plant surveys, the project operator and/or contractor shall conduct preconstruction special-status plant survey(s) during the appropriate blooming period in accordance with the guidelines established by California Department of Fish and Wildlife (2009). Copies of these preconstruction surveys shall be provided to the appropriate wildlife agency and to the Kern County Planning and Natural Resources Department.</p> <p>If any botanical species with a California Native Plant Society rank of 1.B-2 or higher is found during the preconstruction surveys, the project operator and/or contractor shall delay ground disturbance activities and contact California Department of Fish and Wildlife for consultation. If required, in consultation with California Department of Fish and Wildlife, a Habitat Mitigation Plan shall be prepared that includes, at a minimum, the following:</p> <ol style="list-style-type: none"> Wherever feasible, if special-status plant species are observed within the proposed project footprint, the proposed project shall be designed by the Lead Biologist, to reduce impacts to the species through the establishment of preservation areas and buffers. If avoidance or minimization measures are implemented on-site, a Habitat Mitigation Plan shall be developed to ensure adequate management and conservation of botanical resources on-site over the long term. A copy 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>of the Habitat Mitigation Plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>If the project would eliminate more than 10 percent of a local special-status plant population, the Habitat Mitigation Plan would also include the following:</p> <ol style="list-style-type: none"> 1. A figure illustrating the area of the population to be preserved, and the area of the population to be removed; 2. Identification of on-site or off-site preservation, restoration, or enhancement location(s); 3. Methods for preservation, restoration, enhancement, and/or population translocation; 4. A replacement ratio and success standard of 1:1 for occupied habitat lost unless a lower mitigation ratio and/or alternative mitigation is agreed to in coordination with California Department of Fish and Wildlife; 5. A five-year monitoring program to ensure mitigation success; 6. Adaptive management and remedial measures in the event that performance standards are not achieved; and 7. Financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity. <p>MM 4.4-13KC: Prior to the issuance of grading or building permits, the project operator shall:</p> <ol style="list-style-type: none"> a. Provide evidence to the Kern County Planning and Natural Resources Department that consultation with the Kern County Agricultural Commissioner has taken place regarding removal of plants protected under the California Desert Native Plant Act; b. If the Agricultural Commissioner determines that a permit is not required, the project operator shall provide a letter describing the consultation process and Commissioner's determinations, indicating that such authorization is not required. The letter shall also identify the Commissioner's points of contact and contact information; c. If required by the Agricultural Commissioner, the project operator shall provide evidence to the Kern County Planning and Natural 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Resources Department that a California Desert Native Plant Act removal permit has been obtained.</p> <p>MM 4.4-14KC: The following measures shall be implemented to reduce direct impacts to Sensitive Natural Communities, with the exception of western Joshua tree, for which the project has an approved 2084 permit. To the extent feasible, the following avoidance and minimization measures shall be implemented:</p> <ul style="list-style-type: none"> a. Where feasible, the project shall be designed to avoid disturbance of spinescale scrub (<i>Atriplex spinifera</i> Shrubland Alliance) and winter fat scrubland (<i>Krascheninnikovia lanata</i> Shrubland Alliance) b. Where it is not feasible to avoid direct impacts to the spinescale scrub (<i>Atriplex spinifera</i> Shrubland Alliance) and winter fat scrubland (<i>Krascheninnikovia lanata</i> Shrubland Alliance) identified within the project site the project operator shall implement the following measures: <ul style="list-style-type: none"> 1. Compensatory mitigation for impacts to Sensitive Natural Communities shall occur either on-site or off-site and would occur at a ratio no less than 1:1 for each Sensitive Natural Community impacted. A Habitat Mitigation and Monitoring Plan shall be prepared that outlines the compensatory mitigation in coordination with the California Department of Fish and Wildlife. 2. If on-site mitigation is proposed, the Habitat Mitigation and Monitoring Plan shall identify those portions of the site that contain suitable characteristics for restoration or enhancement of sensitive habitat. Determination of mitigation adequacy shall be based on comparison of the restored or enhanced habitat with similar, undisturbed habitat in the vicinity of the development site. If mitigation is implemented off-site, compensatory lands shall contain similar or more well-developed habitat and preferably be located in the vicinity of the site or watershed. Off-site land shall be preserved through a conservation easement and the Plan shall identify an approach for funding assurance for the long-term management of the compensatory land. c. Where direct impacts to western Joshua trees are unavoidable, if western Joshua tree is listed as a ‘candidate,’ ‘threatened,’ or ‘endangered’ species under the California Endangered Species Act at the time of issuance of a building or grading permit in areas that would 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>involve the removal of western Joshua trees, the project proponent may pursue one of the following mitigation options:</p> <ol style="list-style-type: none"> 1. The project operator shall provide evidence to the Kern County Planning and Natural Resources Department demonstrating that that impacts to western Joshua tree have been mitigated in accordance with Section 2084 of the California Fish and Game Code; or 2. The project operator shall mitigate for permanent impacts to western Joshua tree, should an Incidental Take Permit be required from California Department of Fish and Wildlife, through an approved mitigation bank, in-lieu fee program, or other California Department of Fish and Wildlife -approved process. Compensatory mitigation for permanent impacts to western Joshua tree shall be determined and acquired in consultation with the wildlife or resource agency. Verification of compliance shall be submitted to the Kern County Planning and Natural Resources prior to project construction in areas that would involve removal of western Joshua trees. <p>MM 4.4-15KC: The measures listed below shall be implemented prior to and during construction, operations, and decommissioning at the project site.</p> <ol style="list-style-type: none"> a. The project operator has filed for an Incidental Take Permit for Mohave ground squirrel and desert tortoise with California Department of Fish and Wildlife, and a Habitat Conservation Plan with the United States Fish and Wildlife Service for desert tortoise. The project proponent shall mitigate for permanent impacts to suitable desert tortoise and Mohave ground squirrel habitat, through an approved mitigation bank, in-lieu fee program, or other mechanism accepted by California Department of Fish and Wildlife and/or United States Fish and Wildlife Service, as outlined in each agency's <u>agency's</u> respective permit. Compensatory mitigation acreage for permanent impacts to western burrowing owl nesting, occupied, and satellite burrows and/or western burrowing owl habitat shall be determined and acquired in consultation with the wildlife or resource agency and may be mitigated alongside impact on covered species. Compensatory mitigation would provide habitat for desert tortoise, Mohave ground squirrel, and/or burrowing owl, as well as rare plants, State Waters 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>(only if impacted by the project), and features covered under the project's Lake and Streambed Alteration Agreement. The Final Interim Take Permit and approved Habitat Conservation Plan shall be submitted to Kern County prior to the onset of activities that have the potential to impact covered species.</p> <p>b. Prepare a Habitat Mitigation and Monitoring Plan (if required, should an incidental take permit be required for the project) or provide a copy of the project's incidental take permit that outlines all project compensatory mitigation for desert tortoise, Mohave ground squirrel, and burrowing owl, in coordination with the California Department of Fish and Wildlife and the Regional Water Quality Control Board.</p> <ol style="list-style-type: none"> 1. Compensatory mitigation shall provide ecological benefits to covered species that are similar to or better than the projects impacts on covered species. Mitigation sites in the vicinity of the project (eastern Kern County or western San Bernardino County) are preferable. 2. Mitigation shall meet California Department of Fish and Wildlife's durability requirements. 3. The plan, or Interim Take Permit, shall identify conservation actions, where applicable, to demonstrate that the compensatory lands are managed to provide durable environmental benefits to the covered species. 4. The plan or Interim Take Permit shall identify an approach for funding assurance for the long-term management of the conserved land. <p>MM 4.4-16KC: The following measures shall be implemented during project construction and decommissioning activities with respect to burrowing owls.</p> <p>a. A project Lead Biologist shall be on-site during all construction activities in potential burrowing owl habitat. A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience) shall conduct pre-construction surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows not more than 14 days prior to construction and/or prior to desert tortoise exclusion fencing installation. The survey methodology shall be consistent with the methods outlined in the Staff Report on Burrowing Owl Mitigation (CDFG 2012), and shall</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls (and may be combined with other pre-construction surveys). As burrows are searched, biologists shall also look for signs of American badger and desert kit fox. Copies of the survey results shall be submitted to California Department of Fish and Wildlife and the Kern County Planning and Natural Resources Department.</p> <p>b. If no burrowing owls are detected, no further mitigation is necessary. If burrowing owls are detected, no ground-disturbing activities, such as road construction or installation of solar arrays or ancillary facilities, shall be permitted within the distances specified in Table 2 of the Staff Report from an active burrow during the nesting and fledging seasons (April 1 to August 15 and August 16 to October 15, respectively), unless otherwise authorized by California Department of Fish and Wildlife. The specified buffer distance ranges from 656 feet to 1,640 feet, according to the time of year and the level of disturbance. Buffers shall be established in accordance with the table provided in Mitigation Measure MM 4.4-17e16KC(c), below, and occupied burrows shall not be disturbed during the nesting season unless a qualified biologist approved by California Department of Fish and Wildlife, verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Burrowing owls shall not be moved or excluded from burrows during the breeding season (April 1 to October 15) <u>or as outlined in the Project's Habitat Conservation Plan or Incidental Take Permit.</u></p> <p>c. During the nonbreeding (winter) season (October 16 to March 31), consistent with the table below (<i>Western Burrowing Owl Burrow Buffers</i>), all ground-disturbing work shall maintain a distance ranging from 164 feet to 1,640 feet from any active burrows depending on the level of disturbance. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be displaced from winter burrows according to recommendations made in the Staff Report on Burrowing Owl Mitigation (CDFG 2012).</p>	

Western Burrowing Owl Burrow Buffers

Location	Time of Year	Level of Disturbance (in feet)		
		Low	Medium	High
Nesting Sites	April 1 - Aug 15	656	1,640	1,640
Nesting Sites	Aug 16 - Oct 15	656	656	1,640
Any occupied burrow	Oct 16 - Mar 31	164	328	1,640
Source: CDFG 2012				

- d. Burrowing owls should not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed by the Lead Biologist and approved by the applicable local California Department of Fish and Wildlife office and submitted to the Kern County Planning and Natural Resources Department. The plan shall include, at a minimum:
1. Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding burrow scoping;
 2. Type of scope to be used and appropriate timing of scoping to avoid impacts;
 3. Occupancy factors to look for and what shall guide determination of vacancy and excavation timing (one-way doors should be left in place 48 hours to ensure burrowing owls have left the burrow before excavation, visited twice daily and monitored for evidence that owls are inside and can't escape i.e., look for sign immediately inside the door).
 4. How the burrow(s) shall be excavated. Excavation using hand tools with refilling to prevent reoccupation is preferable whenever possible (may include using piping to stabilize the burrow to prevent collapsing until the entire burrow has been excavated and it can be determined that no owls reside inside the burrow);
 5. Removal of other potential owl burrow surrogates or refugia on-site;

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>6. Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;</p> <p>7. Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take;</p> <p>8. How the impacted site shall continually be made inhospitable to burrowing owls and fossorial mammals (e.g., by allowing vegetation to grow tall, heavy disking, or immediate and continuous grading) until development is complete.</p> <p>9. Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows to ensure take is avoided. Conduct daily monitoring for one week to confirm young of the year have fledged if the exclusion shall occur immediately after the end of the breeding season.</p> <p>10. Excluded burrowing owls are documented using artificial or natural burrows on an adjoining mitigation site (if able to confirm by band re-sight).</p> <p>g. In accordance with the Burrowing Owl Exclusion Plan, a qualified wildlife biologist shall excavate burrows using hand tools. Sections of flexible plastic pipe or heavy material shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. One-way doors shall be installed at the entrance to the active burrow and other potentially active burrows within 160 feet of the active burrow. Forty-eight hours after the installation of the one-way doors, the doors can be removed, and ground-disturbing activities can proceed. Alternatively, burrows can be filled to prevent reoccupation.</p> <p>h. During construction and decommissioning activities, monthly and final compliance reports shall be provided to California Department of Fish and Wildlife, the Kern County Planning and Natural Resources Department, and other applicable resource agencies documenting the effectiveness of mitigation measures and the level of burrowing owl take associated with the proposed project.</p> <p>MM 4.4-17KC: The following measures shall be implemented during project construction and decommissioning activities with respect to burrowing owls.</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>a. Should burrowing owls be found on-site, compensatory mitigation for lost breeding and/or wintering habitat shall be implemented off-site in accordance with the Staff Report on Burrowing Owl Mitigation (<u>California Department of Fish and Game CDFG 2012</u>) and in consultation with California Department of Fish and Wildlife. At a minimum, the following recommendations shall be implemented:</p> <ol style="list-style-type: none"> 1. Temporarily disturbed habitat shall be restored, if feasible, to pre-project conditions, including de-compacting soil and revegetating. 2. Permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows and <u>or</u> burrowing owl impacted are replaced based on a site-specific analysis and shall include: Permanent conservation <u>or enhancement</u> of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals. 3. Permanently protect or enhance mitigation land through coordination with California Department of Fish and Wildlife. If the project is located within the service area of a California Department of Fish and Wildlife-approved burrowing owl conservation bank, the project operator may purchase available burrowing owl conservation bank credits. <p>b. Develop and implement a mitigation land management plan in accordance with the Staff Report on Burrowing Owl Mitigation (<u>California Department of Fish and Game CDFG 2012</u>) guidelines to address long-term ecological sustainability and maintenance of the site for burrowing owls.</p> <ol style="list-style-type: none"> 1. Fund the maintenance, management, or enhancement of mitigation land. 2. Habitat shall not be altered or destroyed, and burrowing owls shall not be excluded from burrows, until mitigation lands have been legally secured, are managed for the benefit of burrowing owls according to California Department of Fish and Wildlife- 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>approved management, monitoring and reporting plans, and the endowment or other long-term funding mechanism is in place or security is provided until these measures are completed.</p> <ol style="list-style-type: none"> 3. Mitigation lands or California Department of Fish and Wildlife-approved habitat enhancement projects should be on, adjacent or proximate to the impact site where possible and where habitat is sufficient to support burrowing owls present. 4. Consult with the California Department of Fish and Wildlife when determining off-site mitigation. <p>MM 4.4-18KC: Prior to the issuance of grading or building permit the following shall be implemented:</p> <ol style="list-style-type: none"> a. Preconstruction surveys shall be conducted by a qualified biologist for the presence of desert kit fox and American badger dens prior to installation of desert tortoise exclusion fencing. Copies of the completed surveys shall be submitted to Kern County Planning and Natural Resources Department. b. The survey shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes fallow agricultural land and scrub habitats. Surveys shall not be conducted for all areas of suitable habitat at one time; they shall be phased so that surveys occur within two weeks prior to disturbance of that portion of the site. If no potential American badger or desert kit fox dens are present, no further mitigation is required. c. If potential dens are observed, the following measures are required to avoid potential adverse effects to American badger and desert kit fox: <ol style="list-style-type: none"> 1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers or foxes from reuse during construction. <u>Den excavation shall be prohibited during the pupping season to avoid possible pup mortality resulting from a lack of available refugia.</u> 2. Passive relocation shall be prohibited during the pupping season, which is February 15 to June 1 for both species. If the qualified biologist determines that potential dens outside the breeding season may be active, the biologist shall notify the California Department of Fish and Wildlife. Entrances to the dens shall be 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>blocked with soil, sticks, and debris for three to five days to discourage use of these dens prior to project disturbance. The den entrances shall be blocked to an incrementally greater degree over the three- to five-day period. After the qualified biologist determines that badgers and foxes have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent reuse during construction. The collapsing of active desert kit fox dens shall not occur without prior consultation with the California Department of Fish and Wildlife. A biologist shall remain on-call throughout construction in the event that badger or desert kit fox are present on the site.</p> <p>3. Construction activities shall not occur within 50 feet of active badger dens. The project operator shall contact California Department of Fish and Wildlife immediately if natal badger dens are detected to determine suitable buffers and other measures to avoid take.</p> <p>4. Construction activities shall not occur within 100 feet of active kit fox dens. The project operator shall contact California Department of Fish and Wildlife immediately if pupping kit fox dens are detected to determine suitable buffers and other measures to avoid take.</p> <p>MM 4.4-19KC: Not more than 14 days prior to site clearing and/or ground disturbance in a given area, a qualified biologist shall conduct a preconstruction avian nesting survey. Copies of the completed surveys shall be submitted to Kern County Planning and Natural Resources Department. The surveys shall be conducted as follows:</p> <p>a. Surveys shall not be conducted for an entire project site at one time; they shall be phased so that surveys occur shortly before a portion of the site is disturbed. The surveying biologist must be qualified to determine the species, status, and nesting stage without causing intrusive disturbance. The survey shall cover all reasonably potential nesting locations on and within 300 feet of the project site—this includes ground-nesting species (e.g., western burrowing owl).</p> <p>b. If construction is scheduled to occur during the non-nesting season (August 2 to January 31), no preconstruction surveys for birds or additional measures are required.</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>c. If construction begins in the non-breeding season and proceeds continuously into the breeding season, no surveys are required. However, if there is a break of 14 days or more in construction activities during the breeding season, a new nesting bird survey shall be conducted before construction begins again.</p> <p>d. If active nests are found a 250-foot, no-disturbance buffer (or as otherwise determined in consultation with California Department of Fish and Wildlife) shall be created around the active nests. If the nest(s) are found in an area where ground disturbance is scheduled to occur, the project operator shall avoid the area either by delaying ground disturbance in the area until a qualified wildlife biologist has determined that the birds have fledged or by relocating the project component(s) to avoid the area.</p> <p>e. All vertical tubes used in project construction, such as solar mounts and chain link fencing poles shall be temporarily or permanently capped at the time they are installed to avoid the entrapment and death of special-status birds.</p> <p>MM 4.4-20KC: Prior to issuance of a grading or building permit, the project operator shall Submit written documentation to the Kern County Planning and Natural Resources Department verifying that all power lines are designed in accordance with Avian Power Line Interaction Committee Guidelines. The project operator shall conform to the latest practices (as outlined in the Avian Power Line Interaction Committee Guidelines (2006) document) to protect birds from electrocution and collision.</p> <p>MM 4.4-21KC: The project operator shall develop a site-specific Common Raven Management Plan in accordance with United States Fish and Wildlife Service guidelines and shall implement management measures for ravens in the project area. These measures may include but are not limited to designing structures to eliminate perches, waste management, road kill management, management of ponded water during construction and operations, and nest removal on structures within the photovoltaic solar facility site and along the transmission line</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-72:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.4-2: The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or the USFWS.</p>	Potentially significant	<p>Kern County</p> <p>Implement Mitigation Measure MM 4.4-22KC. and: MM 4.4-23KC.</p> <p>MM 4.4-22KC: Prior to issuance of any grading or building permit, the project proponent/operator shall submit a report detailing how all identified ephemeral drainages are avoided to the extent practicable and shall be continually complied with during the life of the project. A copy of this report shall also be provided to the Lahontan Regional Water Quality Control Board <u>and</u> the Kern County Planning and Natural Resources Department. The report shall include information as shown below as a plan as necessary and shall outline compliance to the following:</p> <ul style="list-style-type: none"> f. Potential jurisdictional features (ephemeral drainages) identified in the jurisdictional delineation report shall be avoided to the extent practicable. This may be shown in plan form. g. Any material/spoils from project activities should be located away from jurisdictional areas. Jurisdictional areas shall be protected from stormwater run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and/or straw bale barriers, as appropriate. Protection measures shall follow project-specific criteria as developed in a Stormwater Pollution Prevention and Protection Plan and in the Hazardous Materials Business Plan. h. Prior to the start of construction activities, the project proponent/operator shall provide evidence that all fueling, hazardous materials storage areas, and operations and maintenance activities shall be sited at least 100 feet away from on-site drainages and other water features, as identified in the project-specific delineation of wetlands and waters. i. Any spillage of hazardous material shall be stopped if it can be done safely. The contaminated area shall be cleaned and any contaminated materials properly disposed. For all spills, the project foreman or designated environmental representative shall be notified. <p>MM 4.4-23KC: If it is determined during final siting that jurisdictional ephemeral drainages cannot be avoided, the project proponent shall notify the California Department of Fish and Wildlife of potentially jurisdictional features and, if necessary, obtain a Lake and Streambed Alteration</p>	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Agreement. If waters of the State are impacted, the owner/operator shall notify the Lahontan Regional Water Quality Control Board, and obtain a Water Quality Certification pursuant to Section 401 of the Clean Water Act, if required.</p> <p>Gen-Tie</p> <p>Implement Mitigation Measures MM 4.4-14KC, MM 4.4-22KC and MM 4.4-23KC.</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-71 to 1-72:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
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.	Less than significant	<p>Kern County</p> <p>Implement Mitigation Measures MM 4.9-1KC (see Section 4.9, Hazards and Hazardous Materials for full Mitigation Measure text), MM 4.10-1KC, MM 4.10-2KC (see Section 4.10, Hydrology and Water Quality for full Mitigation Measure text), MM 4.4-22KC and MM 4.4-23KC. Implement Mitigation Measures MM 4.4-22KC through MM 4.23KC.</p> <p>Gen-Tie Line</p> <p>Implement Mitigation Measures MM 4.9-1KC (see Section 4.9, Hazards and Hazardous Materials for full Mitigation Measure text), MM 4.10-1KC, MM 4.10-2KC (see Section 4.10, Hydrology and Water Quality for full Mitigation Measure text), MM 4.4-22KC and MM 4.4-23KC. Implement Mitigation Measures MM 4.4-22KC through MM 4.23KC.</p>	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-72:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.4-4: The project would 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	<p>Kern County</p> <p>Implement Mitigation Measures MM 4.1-3KC (see Section 4.1, Aesthetics, for full Mitigation Measure text) MM 4.4-1KC through MM 4.4-7KC, MM 4.4-9KC through MM 4.4-11KC, MM 4.4-18KC, and MM 4.4-20KC.</p> <p>Implement Mitigation Measures MM 4.4-1KC through MM 4.4-7KC, MM 4.4-11KC, MM 4.4-18KC, and MM 4.4-20KC.</p> <p>Gen-Tie Line</p> <p>No mitigation measures are required.</p>	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-72 to 1-85:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.5-1: The project would cause a substantial adverse change in the significance of a historic or an archaeological resource, as defined in CEQA Guidelines Section 15064.5.	Potentially significant	<p>Kern County</p> <p>MM 4.5-1KC: Prior to issuance of grading permits, the project proponent/operator shall:</p> <ol style="list-style-type: none"> Retain a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards as published in Title 36, Code of Federal Regulations, part 61 (36 CFR Part 61) to carry out all Mitigation Measures related to archaeological and historical resources. The services of a qualified archaeological monitor and Native American monitor shall be retained by the project proponent/operator to monitor all ground-disturbing activities associated with the construction of the proposed project. The Native American monitor shall be selected from a list of Native American contacts with traditional ties to the project area, provided by the Native American Heritage Commission and/or consultation with Native American tribal 	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>groups who may have interest in the project area. The archaeological monitor shall work under the supervision of the qualified archaeologist.</p> <p>c. The qualified archaeologist, archaeological monitor and Native American monitor shall be provided all project documentation related to cultural resources prior to commencement of ground disturbance activities. Project documentation shall include but not be limited to previous cultural studies, surveys, maps, drawings, etc. Any modifications or updates to project documentation, including construction plans and schedules, shall immediately be provided to the qualified archaeologist, archaeological monitor and Native American monitor.</p> <p>MM 4.5-2KC: Prior to the issuance of grading or building permits, and for the duration of construction activities, a Construction Worker Environmental and Cultural Awareness Training Program shall be provided to all new construction workers within one week of employment at the project site, laydown area and/or transmission routes. The training shall be prepared and conducted by the qualified archaeologist and may include participation of the Native American monitor. The training may be in video format. The qualified archaeologist shall be available to answer questions posed by employees. The training may be discontinued when ground disturbance is completed or suspended, but must resume when construction activities resume. The training shall include, but not be limited to:</p> <ul style="list-style-type: none"> a. A discussion of applicable cultural resources statutes, regulations and related enforcement provisions; b. An overview of the prehistoric and historic environmental setting and context, as well as current cultural information regarding local tribal groups, provided by the Native American Monitor or tribal leader; c. A summary of the effects of the proposed project on cultural resources; d. Samples or visuals of artifacts that might be found in the project area; e. A discussion of what such artifacts may look like when partially or totally buried and then freshly exposed; f. A discussion of what prehistoric and historic archaeological deposits look like at the surface and when exposed during construction; 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>g. Instruction that in the event cultural resources are unearthed during ground-disturbing activities, the qualified archaeologist, the archaeological monitor and/or Native American monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the site until the qualified archaeologist has evaluated the find, determined whether the find is culturally sensitive, and designs an appropriate short-term and long term treatment plan. The qualified archaeologist, in consultation with the Planning and Natural Resources Department and Native American Monitor shall establish an appropriate protocols and procedures for minimizing impacts during construction and future impacts during project operation and maintenance;</p> <p>h. An informational guide that identifies the reporting procedures in the event of a discovery;</p> <p>i. Other information as deemed necessary by the qualified archaeologist or Native American Monitor;</p> <p>j. An acknowledgement form signed by each working indicating that environmental/ cultural training has been completed.</p> <p>k. A sticker that shall be placed on hard hats indicating that the worker has completed the environmental/ cultural training. Construction workers shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker;</p> <p>l. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>MM 4.5-3KC: Following issuance of the CUP, but prior to issuance of grading permits and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid Site P-15-010500. If avoidance is feasible, the area within 100 feet of Site P-15-010500 shall be designated as an Environmentally Sensitive Area and marked with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.</p> <p>a. If avoidance of Site P-15-010500 is feasible, prior to issuance of grading permits, a long-term cultural resources management plan shall</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>be developed for this resource or portion(s) of the resource that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. A copy of the cultural resources management plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>b. If avoidance within 100 feet of Site P-15-010500 is not feasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of this resource to be impacted by the project.</p> <p>c. Treatment shall consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the project. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director prior to the issuance of a grading permit, and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>d. If project phasing allows, multiple resources can be included in a single treatment plan document.</p> <p>MM 4.5-4KC: Prior to issuance of grading permits and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid Site P-15-010501. If avoidance is feasible, the area within 100 feet of Site P-15-010501 shall be designated Environmentally Sensitive Area and marked with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.</p> <p>a. If avoidance of Site P-15-010501 is feasible, prior to issuance of grading permits, a long-term cultural resources management plan shall</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>be developed for this resource or portion(s) of the resource that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. A copy of the cultural resources management plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>b. If avoidance of 100 feet of Site P-15-010501 is not feasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of this resource to be impacted by the project.</p> <p>c. Treatment shall consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the project. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director prior to the issuance of a grading permit, and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>d. If project phasing allows, multiple resources can be included in a single treatment plan document.</p> <p>MM 4.5-5KC: Prior to issuance of grading permits and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid Site P-15-013568. If avoidance is feasible, the area within 100 feet of Site P-15-013568 shall be designated an Environmentally Sensitive Area and marked with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.</p> <p>a. If avoidance of Site P-15-013568 is feasible, prior to issuance of grading permits, a long-term cultural resources management plan shall be developed for this resource or portion(s) of the resource that can be avoided during project construction, in order to minimize future</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>impacts during project operation and maintenance. A copy of the cultural resources management plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>b. If avoidance within 100 feet of Site P-15-013568 is not feasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of this resource to be impacted by the project.</p> <p>c. Treatment shall consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the project. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director prior to the issuance of a grading permit, and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>d. If project phasing allows, multiple resources can be included in a single treatment plan document.</p> <p>MM 4.5-6KC: Prior to issuance of grading permits and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid Site P-15-013622. If avoidance is feasible, the area within 100 feet of Site P-15-013622 shall be designated an Environmentally Sensitive Area and marked with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.</p> <p>a. If avoidance of Site P-15-013622 is feasible, prior to issuance of grading permits, a long-term cultural resources management plan shall be developed for this resource or portion(s) of the resource that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. A copy of the</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>cultural resources management plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>b. If avoidance within 100 feet of Site P-15-013622 is not feasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of this resource to be impacted by the project.</p> <p>c. Treatment shall consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the project. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director prior to the issuance of a grading permit, and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>d. If project phasing allows, multiple resources can be included in a single treatment plan document.</p> <p>MM 4.5-7KC: Prior to issuance of grading permits and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid Site BEL-S-013. If avoidance is feasible, the area within 100 feet of Site BEL-S-013 shall be designated Environmentally Sensitive Area and marked with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.</p> <p>a. If avoidance of Site BEL-S-013 is feasible, prior to issuance of grading permits, a long-term cultural resources management plan shall be developed for this resource or portion(s) of the resource that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. A copy of the</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>cultural resources management plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>b. If avoidance of 100 feet of Site BEL-S-013 is not feasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of this resource to be impacted by the project.</p> <p>c. Treatment shall consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the project. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director prior to the issuance of a grading permit, and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>d. If project phasing allows, multiple resources can be included in a single treatment plan document.</p> <p>MM 4.5-8KC: Prior to issuance of grading permits and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid Site BEL-S-107. If avoidance is feasible, the area within 100 feet of Site BEL-S-107 shall be designated Environmentally Sensitive Area and marked with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.</p> <p>a. If avoidance of Site BEL-S-107 is feasible, prior to issuance of grading permits, a long-term cultural resources management plan shall be developed for this resource or portion(s) of the resource that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. A copy of the</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>cultural resources management plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>b. If avoidance of 100 feet of Site BEL-S-107 is not feasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of this resource to be impacted by the project.</p> <p>c. Treatment shall consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the project. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director prior to the issuance of a grading permit, and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>d. If project phasing allows, multiple resources can be included in a single treatment plan document.</p> <p>MM 4.5-9KC: Prior to issuance of grading permits and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid Site BEL-S-108. If avoidance is feasible, the area within 100 feet of Site BEL-S-108 shall be designated Environmentally Sensitive Area and marked with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.</p> <p>a. If avoidance of Site BEL-S-108 is feasible, prior to issuance of grading permits, a long-term cultural resources management plan shall be developed for this resource or portion(s) of the resource that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. A copy of the</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>cultural resources management plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>b. If avoidance of 100 feet of Site BEL-S-108 is not feasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of this resource to be impacted by the project.</p> <p>c. Treatment shall consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the project. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director prior to the issuance of a grading permit, and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>d. If project phasing allows, multiple resources can be included in a single treatment plan document.</p> <p>MM 4.5-10KC: Prior to issuance of grading permits and in coordination with the qualified archaeologist, the construction zone shall be narrowed or otherwise altered to avoid Site BEL-S-113. If avoidance is feasible, the area within 100 feet of Site BEL-S-113 shall be designated Environmentally Sensitive Area and marked with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.</p> <p>a. If avoidance of Site BEL-S-113 is feasible, prior to issuance of grading permits, a long-term cultural resources management plan shall be developed for this resource or portion(s) of the resource that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. A copy of the</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>cultural resources management plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>b. If avoidance of 100 feet of Site BEL-S-113 is not feasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of this resource to be impacted by the project.</p> <p>c. Treatment shall consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; surface artifact collection; site documentation; and historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the project. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director prior to the issuance of a grading permit, and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>d. If project phasing allows, multiple resources can be included in a single treatment plan document.</p> <p>MM 4.5-11KC: In the event archaeological materials are encountered during the course of grading or construction for any project components, the project contractor shall cease any ground disturbing activities within 100 feet of the find. The area of the discovery shall be marked off by temporary fencing that encloses a 100-foot radius from the location of discovery. Signs shall be posted that establish it as an Environmentally Sensitive Area and all entrances to the area shall be avoided until the discovery is assessed by the qualified archaeologist, as well as the Native American monitor if the discovery involves resources of interest to Native American tribes, including but not limited to prehistoric archaeological sites or tribal cultural resources. The qualified archaeologist in consultation with the Native American monitor, if appropriate, shall evaluate the significance of the resources and recommend appropriate treatment measures. If further treatment of the discovery is necessary, the Environmentally Sensitive Area shall remain in place until all work is completed.</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Per California Environmental Quality Act Guidelines (CEQA) Section 15126.4(b)(3), project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist in consultation with the Native American monitor shall develop additional treatment measures in consultation with the County, which may include data recovery or other appropriate measures. The County shall consult with appropriate Native American representatives in determining appropriate treatment for unearthened cultural resources if the resources are prehistoric or Native American in nature. Archaeological materials recovered during any investigation shall be curated at an accredited curation facility. The qualified archaeologist, in consultation with a designated Native American monitor, shall prepare a report documenting evaluation and/or additional treatment of the resource. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department and to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>Gen-Tie</p> <p>Implement Mitigation Measures MM 4.5-1KC, 4.5-2KC, and MM 4.5-11KC and:</p> <p>MM 4.5-12KC: Prior to issuance of grading permits and in coordination with the qualified archaeologist, the segment of the Twenty Mule Team Road impacted by the project shall be documented. Documentation shall consist of the development of a historical narrative following the National Park Service (NPS) guidance for Historic American Landscapes Survey Level II documentation supported by archival research using primary and secondary sources. This may include, but not be limited to, historical maps, aerial photographs, written histories, newspapers, existing cultural resource reports, and historic photographs. Detailed maps of the road shall be made, and large-format black and white, archival quality photographs shall be taken following the NPS guidelines for Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscapes Survey photography. The documentation report and photographs shall be printed on archival quality paper, saved onto an archival quality CD, and housed in an archival storage box. Copies shall be donated to local repositories.</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>After documentation of the segment of the Twenty Mule Team Road potentially impacted by the project is completed, the project developer in coordination with the qualified archaeologist shall determine if the construction zone can be narrowed or otherwise altered to avoid Site P-15-003927. If avoidance is feasible, the area within 100 feet of Site P-15-003927 shall be designated an Environmentally Sensitive Area and marked with exclusion markers to ensure avoidance. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.</p> <p>If avoidance of Site P-15-003927 is feasible, prior to issuance of grading permits, a long-term cultural resources management plan shall be developed for this resource or portion(s) of the resource that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. A copy of the cultural resources management plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>If avoidance within 100 feet of Site P-15-003927 is not feasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) of this resource to be impacted by the project.</p> <p>Treatment shall consist of (but would not be limited to): a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; sample excavation; and surface artifact collection, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the project. The Cultural Resources Treatment Plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director prior to the issuance of a grading permit, and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p> <p>If project phasing allows, multiple resources can be included in a single treatment plan document</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-85:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.5-2: The project would cause a substantial adverse change in the significance of an archaeological resource, as defined in CEQA Guidelines Section 15064.5.	Potentially significant	<p>Kern County</p> <p>With implementation of Mitigation Measure MM 4.5-1KC through MM 4.5-4KC and MM 4.5-7KC through MM 4.5-11KC, impacts would be less than significant.</p> <p>Gen-Tie</p> <p>With implementation of Mitigation Measure MM 4.5-1KC, 4.5-2KC, and MM 4.5-11KC and MM 4.5-12KC, impacts would be less than significant.</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-87:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
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.	Less than significant	<p>Kern County</p> <p>No mitigation measures are <u>would be</u> required.</p> <p>Gen-Tie</p> <p>No mitigation measures are <u>would be</u> required.</p>	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-87 to 1-89:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.7-2: Directly <u>The project would directly</u> or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving strong seismic ground shaking.</p>	Potentially significant	<p>Kern County</p> <p>MM 4.7-1KC: Prior to the issuance of building or grading permits for the proposed project, the project proponent/operator shall conduct a final geotechnical study to confirm the findings of the preliminary geotechnical engineering report regarding soil conditions and geologic hazards on the project site.</p> <ol style="list-style-type: none"> 1. The final geotechnical study must be signed by a California-registered and licensed professional engineer and must include, but not limited to the following: <ol style="list-style-type: none"> a. Location of fault traces and potential for surface rupture and ground-shaking potential; b. Maximum considered earthquake and associated ground acceleration; c. Potential for seismically induced liquefaction, landslides, differential settlement, and mudflows; d. Stability of any existing or proposed cut-and-fill slopes; e. Collapsible or expansive soils; f. Foundation material type; g. Potential for wind erosion, water erosion, sedimentation, and flooding; h. Location and description of unprotected drainage that could be impacted by the proposed development; and, i. Recommendations for placement and design of facilities, foundations, and remediation of unstable ground and any seismic hazards. 2. The project proponent/operator shall determine the final siting of project facilities based on the results of the geotechnical study and implement recommended measures to minimize geologic hazards. The project proponent/operator shall not locate project facilities on or immediately adjacent to a fault trace. All structures shall be offset at least 100 feet from any mapped fault trace. Alternatively, a detailed 	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>fault trenching investigation may be performed to accurately locate the fault trace(s) to avoid siting improvements on or close to these fault structures and to evaluate the risk of fault rupture. After locating the fault, alternate setback distances may be proposed.</p> <p>3. The final geotechnical study shall be submitted for review and approval by the Kern County Public Works Department. The Kern County Public Works Department shall evaluate final facility siting design prior to the issuance of any building or grading permits to verify that geological constraints have been avoided. Final design requirements shall also be provided to the on-site 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.</p> <p>Gen-Tie</p> <p>Implement mitigation measure MM 4.7-1KC.</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-93 to 1-94:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.9-1: The project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Potentially significant	<p>Kern County</p> <p>Implement Mitigation Measure MM 4.16-1KC (see Section 4.16, Utilities and Service Systems, for full mitigation measure text).</p> <p>MM 4.9-1KC: During the life of the project, including decommissioning, the project operator shall prepare and maintain a Hazardous Materials Business Plan, as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 and in accordance with Kern County Ordinance Code 8.04.030, by submitting all the required information to the California Environmental Reporting System at http://cers.calepa.ca.gov/ for review and acceptance by the Kern County Environmental Health Services Division/Hazardous Materials Section.</p> <p>a. The Hazardous Materials Business Plan shall:</p>	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ol style="list-style-type: none"> 1. Delineate hazardous material and hazardous waste storage areas; 2. Describe proper handling, storage, transport, and disposal techniques, including which routes will be used to transport hazardous materials; 3. Describe methods to be used to avoid spills and minimize impacts in the event of a spill; 4. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; 5. Establish public and agency notification procedures for spills and other emergencies including fires; and 6. Include procedures to avoid or minimize dust from existing residual pesticide and herbicide use that may be present on the site. <p>b. The project proponent/operator shall provide the Hazardous Materials Business Plan to all contractors working on the project and shall ensure that one copy is available at the project site at all times.</p> <p>c. A copy of the approved Hazardous Materials Business Plan shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>Gen-Tie</p> <p>Implement Mitigation Measure MM 4.9-1KC and Mitigation Measure MM 4.16-1KC (see Section 4.16, Utilities and Service Systems, for full mitigation measure text).Implement Mitigation Measure MM 4.9-1KC.</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-98:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Significant and unavoidable	<p>Kern County</p> <p>Implement Mitigation Measures MM 4.9-1KC; MM 4.9-2KC; MM 4.9-6KC; MM 4.13-1KC (see Section 4.13, Public Services, for full mitigation measure text); <u>and</u> MM 4.16-1KC (see Section 4.16, Utilities and Service Systems, for full mitigation measure text).</p> <p>Gen-Tie</p> <p>Implement Mitigation Measures MM 4.9-1KC; MM 4.9-2KC; MM 4.9-5KC; MM 4.9-6KC; MM 4.13-1KC (see Section 4.13, Public Services, for full mitigation measure text); and MM 4.16-1KC (see Section 4.16, Utilities and Service Systems, for full mitigation measure text).</p>	Significant and unavoidable

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-98 to 1-100:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-1: The project would violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality.	Potentially significant	<p>Kern County</p> <p>Implement Mitigation Measure MM 4.9-1KC (see Section 4.9, Hazards and Hazardous Materials).</p> <p>MM 4.10-1KC: Prior to issuance of a grading permit, and prior to engagement of decommissioning activities, the project proponent/operator shall submit a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the Regional Water Quality Control Board—Lahontan Region. The SWPPP shall be designed to minimize runoff and shall specify best management practices to prevent all construction pollutants from contacting stormwater, with the intent of keeping sediment or any other pollutants from moving off-site and into receiving waters. The requirements of the SWPPP shall be incorporated into design specifications and construction contracts. Recommended best management practices to be incorporated in the SWPPP may include the following:</p> <p>a. Minimization of vegetation removal.</p>	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> b. Implementing sediment controls, including silt fences as necessary. c. Installation of a stabilized construction entrance/exit and stabilization of disturbed areas. d. Properly containing and disposing of hazardous materials used for construction on-site. e. Properly covering stockpiled soils to prevent wind erosion. f. Proper protections and containment for fueling and maintenance of equipment and vehicles. g. Appropriate disposal of demolition debris, concrete and soil, and aggressively controlling litter. h. Cleanup of silt and mud on adjacent street due to construction activity. i. Checking all lined and unlined ditches after each rainfall. j. Restoring all erosion control devices to working order to the satisfaction of the Lahontan Regional Water Quality Control Board after each rainfall runoff. k. Installing additional erosion control measures as may be required due to uncompleted grading operations or unforeseen circumstances which may arise. <p>MM 4.10-2KC: Prior to the issuance of a grading permit, the project proponent/operator shall submit a final hydrologic study and drainage plan for review and approval by the Kern County Public Works Department. The final hydrologic study and drainage plan shall be designed to evaluate and minimize potential increases in runoff from the project site. The final hydrologic study and drainage plan shall include, but not be limited to the following:</p> <ul style="list-style-type: none"> a. Numerical stormwater model for the project site, which would evaluate existing and proposed (with project) drainage conditions during storm events ranging up to the 100- year event. b. Consideration of the potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation. c. Engineering recommendations to be incorporated into the project and applied within the site boundary. Engineering recommendations will 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding on-site or off-site.</p> <p>d. The final design of the solar arrays shall include 1 foot of freeboard clearance above the calculated maximum flood depths for the solar arrays or the finished floor of any permanent structures. Solar module sites located within a 100-year floodplain shall be graded to direct potential floodwaters without increasing the water surface elevations more than 1 foot or as required by Kern County's Floodplain Ordinance.</p> <p>e. The hydrologic study and drainage plan shall be prepared in accordance with the Kern County Grading Code, Kern County Development Standards, Kern County Hydrology Manual and Kern County Floodplain Ordinance, California City Grading Code, and approved by the Kern County Public Works Department prior to the issuance of grading permits.</p> <p>MM 4.10-3KC: Prior to issuance of a building permit for any on-site water treatment facilities, the project proponent/project operator shall provide evidence of compliance with any applicable Waste Discharge Requirements established by the Lahontan Regional Water Quality Control Board to the Kern County Public Works Department – Building and Development.</p> <p>Gen-Tie</p> <p>Implement Mitigation Measures MM 4.9-1KC (see Section 4.9, <i>Hazards and Hazardous Materials</i>), MM 4.10-1 KC, and MM 4.10-2KC.</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page1-102:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-8: Conflict <u>The project would conflict</u> with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Potentially significant	Kern County Implement Mitigation Measures MM 4.10-1KC and MM 4.10-2KC . Gen-Tie Implement Mitigation Measures MM 4.10-1KC and MM 4.10-2KC .	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-102 to 1-103:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.11-2: The project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation for the purpose of avoiding or mitigating an environmental effect.	Potentially significant	Kern County With implementation of <u>Implement</u> Mitigation Measure MM 4.9-6KC (see Section 4.9, Hazards and Hazardous Materials for full Mitigation Measure text), impacts would be less than significant. Gen-Tie With implementation of <u>Implement</u> Mitigation Measure MM 4.9-6KC (see Section 4.9, Hazards and Hazardous Materials for full Mitigation Measure text), impacts would be less than significant.	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-108:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.12-3: The project would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	Less than significant	Kern County No mitigation measures are required. Gen-Tie No mitigation measures are required.	<u>Less than significant</u>

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-108:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.12-4: The project would expose people residing or working in the project area to excessive noise levels, for a project located within the Kern County Airport Land Use Compatibility Plan.	Potentially significant	Kern County: Implement Mitigation Measure MM 4.9-3KC-6KC (see Section 4.9, Hazards and Hazardous Materials , for full text). Gen-Tie Line: Implement Mitigation Measure MM 4.9-3KC-6KC (see Section 4.9, Hazards and Hazardous Materials , for full text).	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-108:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Potentially significant	Kern County: Implement Mitigation Measures MM 4.9-46KC and MM 4.12-1KC through MM 4.12-3KC . Gen-Tie:	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Implement Mitigation Measures MM 4.9-46KC and MM 4.12-1KC through MM 4.12-3KC .	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-108 to 1-111:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Potentially significant	Kern County: Implement Mitigation Measures MM 4.9-4KC and MM 4.12-1KC through MM 4.12-3KC . Gen-Tie: Implement Mitigation Measures MM 4.9-4KC and MM 4.12-1KC through MM 4.12-3KC .	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-111:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Potentially significant	Kern County Implement Mitigation Measures MM 4.13-1KC through MM 4.13-5KC . City of California City Implement Mitigation Measures MM 4.13-1CC through MM 4.13-5CC. Gen-Tie Implement Mitigation Measure MM 4.13-1KC and MM 4.13-5KC .	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-113:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.14-2: The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	Less than significant	Kern County No mitigation measures are required. Gen-Tie No mitigation measures are required.	<u>Less than significant</u>

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-114:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.15-1a: The project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is listed or eligible for listing in the California Register of Historic Places, or in a local register of historical resources as defined in Public Resources Section 5020.1(k).	Potentially significant	Kern County Implement Mitigation Measures MM 4.5-1KC, MM 4.5-2KC, MM 4.5-5KC, and MM 4.5-11KC, and MM 4.5-13KC (see Section 4.5, Cultural Resources for full Mitigation Measure text). Gen-Tie: Implement Mitigation Measures MM 4.5-1KC, MM 4.5-2KC, MM 4.5-5KC, MM 4.5-11KC, and MM 4.5-12KC (see Section 4.5, Cultural Resources for full Mitigation Measure text).	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-114 to 1-115:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.15-1b: The project would cause a substantial adverse change in the significance of	Potentially significant	Kern County	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		<p>Implement Mitigation Measures MM 4.5-1KC, MM 4.5-2KC, MM 4.5-5, and MM 4.5-11KC, and MM 4.5-13KC (see Section 4.5, Cultural Resources for full Mitigation Measure text).</p> <p>Gen-Tie</p> <p>Implement Mitigation Measures MM 4.5-1KC, MM 4.5-2KC, MM 4.5-5, and MM 4.5-11 KC, and MM 4.5-13KC (see Section 4.5, Cultural Resources for full Mitigation Measure text). –</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-115:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Potentially significant	<p>Kern County</p> <p>Implement Mitigation Measures MM 4.5-1KC, MM 4.5-2KC, MM 4.5-5KC, and MM 4.5-11KC, and MM 4.5-13KC (see Section 4.5, Cultural Resources for full Mitigation Measure text).</p> <p>Gen-Tie</p> <p>Implement Mitigation Measures MM 4.5-1KC, MM 4.5-2KC, MM 4.5-5KC, and MM 4.5-11KC, and MM 4.5-13KC (see Section 4.5, Cultural Resources for full Mitigation Measure text).</p>	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Page 1-115:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.16-2: The project would have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	Less than significant	Kern County No mitigation measures are <u>would be</u> required. Gen-Tie No mitigation measures are <u>would be</u> required.	Less than significant

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance -- Kern County and Gen-Tie Line; Pages 1-115 to 1-116:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.16-3: Generate <u>The project would generate</u> solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals.	Potentially significant	Kern County MM 4.16-1KC: During construction, operation, and decommissioning, debris and waste generated shall be recycled to the extent feasible. <ol style="list-style-type: none"> An on-site Recycling Coordinator shall be designated by the project proponent/operator to facilitate recycling as part of the Maintenance, Trash Abatement, and Pest Management Program. The Recycling Coordinator shall facilitate recycling of all construction waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes. The on-site Recycling Coordinator shall also be responsible for ensuring waste requiring special disposal are handled according to state local regulations that are in effect at the time of disposal. Contact information of the coordinator shall be provided to the Kern County Planning and Natural Resources Department prior to issuance of building permits. The project proponent/operator shall provide a storage area for recyclable materials within the fenced project area that is clearly identified for recycling. This area shall be maintained on the site during construction, operations, and decommissioning. A site plan showing 	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the recycling storage area shall be submitted prior to the issuance of any grading or building permit for the site. Gen-Tie Implement Mitigation Measure MM 4.16-1KC .	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-118:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.1-1: Have <u>The project would have</u> a substantial adverse effect on a scenic vista.	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-118:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.1-2: The project would <u>Substantially</u> damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-118 to 1-120:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.1-2: The project would <u>Substantially</u> damage scenic resources, including, but not	Less than significant	No mitigation measures are required.	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.			

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-120 to 1-121:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.1-4: <u>The project would</u> Create create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Potentially significant	<p>MM 4.1-5CC: Prior to final activation of the solar facility, the project proponent shall demonstrate to the City of California City Community Development Department that the project site complies with the applicable standards regarding project lighting within the City and shall be designed to provide the minimum illumination needed to achieve safety and security objectives. All lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Lenses and bulbs shall not be exposed or extend below the shields.</p> <p>MM 4.1-6CC: Prior to the issuance of building permits, the project proponent shall demonstrate the solar panels and hardware are designed to minimize glare and spectral highlighting. Emerging technologies shall be used, such as diffusion coatings and nanotechnological innovations, to effectively reduce the refractive index of the solar cells and protective glass. These technological advancements are intended to make the solar panels more efficient with respect to converting incident sunlight into electrical power while also reducing the amount of glare generated by the panels. Specifications of such designs shall be submitted to the City of California City Community Development Department for review and final approval.</p> <p>MM 4.1-7CC: Prior to final activation of the solar facility, the project operator shall demonstrate that the O&M building, energy storage facilities, gen-tie facilities, and collector facilities utilize materials that minimize glare all on-site buildings utilize non-reflective materials, as approved by the City of California City Community Development Department.</p>	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-121:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.2-1: The project would conflict with existing zoning for agricultural use or a Williamson Act Contract.	Less than significant	No mitigation measures are <u>would be</u> required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-121:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Less than significant	No mitigation measures are <u>would be</u> required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-121 to 1-126:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.3-1: The project would conflict with or obstruct implementation of the applicable air quality plan.	Potentially significant	MM 4.3-ICC: The project operator shall ensure that construction, operation, and decommissioning of the proposed project shall be conducted in compliance with applicable rules and regulations set forth by the Eastern Kern Air Pollution Control District (EKAPCD). The project operator shall develop a fugitive dust control plan (Plan) for the project. The Plan shall address short-term construction and long-term operational activities. The Plan shall be endorsed by the <u>Eastern Kern Air Pollution Control District</u> EKAPCD prior to the start of any earthmoving activity. The project operator shall also develop a decommissioning fugitive dust control plan (Decommissioning Plan) for the project if a decision is made to decommission and remove the solar facilities in the future. The Decommissioning Plan shall be endorsed by the <u>Eastern Kern Air Pollution Control District</u> EKAPCD prior to any decommissioning activities.	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Dust control measures outlined below shall be implemented where they are applicable and feasible. The list shall not be considered all-inclusive and any other measures to reduce fugitive dust emissions not listed shall be encouraged:</p> <ol style="list-style-type: none"> a. The following dust control measures shall be implemented during land preparation, excavation, and/or demolition: <ol style="list-style-type: none"> 1. All soil excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed soil areas. Watering shall take place a minimum of three times daily on disturbed soil areas with active operations, unless dust is otherwise controlled by rainfall or use of a dust palliative. 2. All disturbed areas on the project site and proposed transmission corridor shall be watered as frequently as necessary during grading; and after active construction activities shall be stabilized with a non-toxic soil stabilizer or soil weighting agent, or alternative approved soil stabilizing methods. The frequency of watering can be reduced or eliminated during period of precipitation. 3. All unpaved construction and operation/maintenance site roads, as they are being constructed, shall be stabilized with a non-toxic soil stabilizer or soil weighting agent. 4. All clearing, grading, earth moving, and excavation activities shall cease during periods of winds greater than 20 miles per hour (averaged over one hour), or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures or neighboring property, or as identified in a plan approved by the <u>Eastern Kern Air Pollution Control District</u> EKAPCD. 5. All trucks entering or leaving the project site shall cover all loads of soils, sands, and other loose materials, or be thoroughly wetted with a minimum freeboard height of six inches. 6. Areas disturbed by clearing, earth-moving, or excavation activities shall be minimized at all times. 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ol style="list-style-type: none"> 7. Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method to prevent wind-blown fugitive dust. 8. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or shall be treated with appropriate dust suppressant compounds. 9. Prior to construction, wind breaks (such as chain-link fencing including a wind barrier) shall be installed where appropriate. 10. Where acceptable to the Kern County Fire Department and California City Fire Department, weed control shall be accomplished by mowing instead of discing, thereby, leaving the ground undisturbed and with a mulch covering. b. After clearing, grading, earth moving and/or excavating is completed within any portion of the project site, the following dust control practices shall be implemented: <ol style="list-style-type: none"> 1. Once initial leveling has ceased, all inactive soil areas within the construction site shall be immediately treated with a dust palliative. 2. Dependent on specific site conditions (season and wind conditions), revegetation shall occur in those areas so planned as soon as practical after installation of the solar panels. 3. All unpaved road areas shall be treated with a dust palliative or graveled to prevent excessive dust. c. During all phases of construction, the following vehicular control measures shall be implemented: <ol style="list-style-type: none"> 1. No vehicle shall exceed 10 miles per hour on unpaved areas within the project site, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. 2. Visible speed limit signs shall be posted at the project site entrance(s). 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>3. All areas with vehicle traffic, especially the main entrance roadway to the project site, shall be graveled or treated with dust palliatives so as to prevent track-out onto public roadways.</p> <p>4. All vehicles that are used to transport solid bulk material on public roadways and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least one foot of freeboard.</p> <p>5. Streets adjacent to the project site shall be kept clean and project related accumulated silt shall be removed on a regular basis. The use of either dry rotary brushes (unless prior wetting) or blower devices is prohibited.</p> <p>6. Access to the project site shall be by means of an apron into the facility site from adjoining surfaced roadways. The apron shall be surfaced or treated with dust palliatives. If operating on soils that cling to the wheels of vehicles, a grizzly, wheel washer, or other such device shall be used on the road exiting the facility site, immediately prior to the pavement, in order to remove most of the soil material from vehicle tires.</p> <p>MM 4.3-2CC: The project operator and/or its contractor(s) shall implement the following measures during construction of the proposed project on the project site:</p> <p>a. All equipment shall be maintained in accordance with the manufacturer's specifications.</p> <p>b. <u>Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. Equipment shall be shut down when not in use for extended periods of time.</u></p> <p>c. No individual piece of construction equipment shall operate no longer than eight cumulative hours per day.</p> <p>d. Electric equipment shall be used whenever feasible in lieu of diesel or gasoline-powered equipment.</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>e. All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NO_x emissions.</p> <p>f. On-road and off-road diesel equipment shall use diesel particulate filters if permitted under manufacturer's guidelines.</p> <p>MM 4.3-3CC: The project operator shall continuously comply with the following measures during construction and operation to control NO_x emissions from on-road heavy-duty diesel haul vehicles that are contracted on a continuing basis for use to haul equipment and materials for the proposed project:</p> <p>a. 2006 engines or pre-2006 engines with California Air Resources Board certified Level 3 diesel emission controls will be used to the extent possible.</p> <p>b. All on-road construction vehicles, except those meeting the 2006/California Air Resources Board certified Level 3 diesel emissions controls, shall meet all applicable California on-road emission standards to the greatest extent possible. This does not apply to worker personal vehicles.</p> <p>c. The construction contractor shall ensure that all on-road construction vehicles are properly tuned and maintained in accordance with the manufacturer's specifications.</p> <p>MM 4.3-4CC:The project operator shall continuously comply with the following measures during operation to control fugitive dust emissions:</p> <p>a. The unpaved main access road for employees and deliveries to the maintenance complex shall be paved or effectively stabilized using soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than California Air Resources Board approved soil stabilizers, and that shall not increase any other environmental impacts including loss of vegetation</p> <p>b. The other unpaved roads at the project site shall be stabilized using water or soil stabilizers so that vehicle travel on these roads does not cause visible dust plumes.</p> <p>c. Traffic speeds on unpaved roads shall be limited to no more than 10 miles per hour, with the exception that vehicles may travel up to 25</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. Traffic speed signs shall be displayed prominently at all site entrances and at egress point(s) from the central maintenance complex.	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-127 to 1-128:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.3-4: The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.	Significant and unavoidable	Implementation of Mitigation Measures MM 4.3-1CC through MM 4.3-4CC (refer to <u>Impact 4.3-1</u>) and MM 4.3-5CC through MM 4.3-7CC (refer to <u>Impact 4.3-2</u>).	Significant and unavoidable

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-128 to 1-147:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.4-1: <u>The project would</u> have have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or a special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS.	Potentially significant	Implement Mitigation Measure MM 4.1-5CC (see Section 4.1, Aesthetics , for full Mitigation Measure text), regarding compliance with the Kern County Dark Skies Ordinance. MM 4.4-1CC: Prior to the issuance of grading or building permits, the project operator shall retain a Lead Biologist who meets the qualifications of an Authorized Biologist as defined by United States Fish and Wildlife Service and California Department of Fish and Wildlife to oversee compliance with protection measures for all listed and other special-status species. The project Lead Biologist shall be on-site during all fencing and	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>ground disturbance activities throughout the construction phase. The project Lead Biologist shall have the right to halt all activities that are in violation of the special-status species protection measures described herein. Work shall proceed only after hazards to special-status species are removed and the species is no longer at risk. The project Lead Biologist shall have in her/his possession a copy of all the compliance measures while work is being conducted on-site.</p> <p>MM 4.4-2CC: Prior to the issuance of grading or building permits, and for the duration of construction activities, all new construction workers at the project site shall attend a Worker Environmental Awareness Program (WEAP), developed and presented by the project Lead Biologist. As part of the <u>Worker Environmental Awareness Program</u> WEAP training, the project Lead Biologist shall perform the following training-related tasks:</p> <ol style="list-style-type: none"> Provide the training materials for <u>Worker Environmental Awareness Program</u> WEAP training. These materials shall include the measures and mitigation requirements for protected plant and wildlife species (e.g., avoidance and buffer requirements, nighttime construction limitations), and applicable fire protection measures. <u>Worker Environmental Awareness Program</u> WEAP training shall also include driver training to avoid and minimize collision risks with protected species, and reporting protocols in the event that any dead or injured wildlife are discovered. Send a copy of all <u>Worker Environmental Awareness Program</u> WEAP training materials to the California City Community Development Department. Maintain a list on-site of all employees who have undergone <u>Worker Environmental Awareness Program</u> WEAP training. A copy of this list shall be provided to the California City Community Development Department as necessary. <p>MM 4.4-3CC: The Worker Environmental Awareness Program (WEAP) shall be presented by the Lead Biologist and shall include information on the life history of each federal and state-listed species, as well as other special-status wildlife, natural communities, and plant species that may be encountered during construction activities, their legal protections, the definition of “take” under the federal and State Endangered Species Acts, measures the project operator is implementing to protect special-status species, reporting requirements, specific measures that each worker shall</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>employ to avoid take of special-status wildlife species, and penalties for violation of the acts. Training shall be documented as follows:</p> <ol style="list-style-type: none"> An acknowledgement form signed by each worker indicating that environmental training has been completed. A sticker that shall be placed on hard hats indicating that the worker has completed the environmental training. Construction workers shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker. A copy of the training transcript/training video and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgements forms shall be submitted to the California City Community Development Department. <p>MM 4.4-4CC: During construction and decommissioning the anticipated impact zones, including staging areas, equipment access, and disposal or temporary placement of spoils, shall be delineated with stakes and flagging prior to construction to avoid natural resources where possible. Construction-related activities outside of the impact zone shall be avoided. The construction crews and contractor(s) shall be held responsible for unauthorized impacts from construction activities to sensitive biological resources that are outside the areas defined as subject to impacts by project permits.</p> <p>MM 4.4-5CC: New and existing roads that are planned for either construction or widening shall not extend beyond the planned impact area. All vehicles passing or turning around shall do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, a biological resources survey shall be conducted by the Lead Biologist or by biological monitor(s) under the Lead Biologist's supervision to determine if listed or special-status species would be impacted. Impacts shall be avoided to the maximum extent practicable or shall be fully mitigated for. Construction shall not begin until the route is cleared for biological resources. The route shall be clearly marked (i.e., flagged and/or staked) prior to the onset of construction and use.</p> <p>MM 4.4-6CC: Spoils shall be stockpiled in disturbed areas. Stockpile areas shall be marked to define the limits where stockpiling can occur. Standard best management practices shall be employed to prevent loss of habitat due</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>to erosion caused by project-related impacts (i.e., grading or clearing for new roads). All detected erosion shall be remedied within two days of discovery.</p> <p>MM 4.4-7CC: All ground disturbance construction and decommissioning activities shall be monitored by the qualified Lead Biologist or by biological monitors under the Lead Biologist's supervision to ensure compliance with avoidance and minimization measures.</p> <p>MM 4.4-8CC: The project operator and/or contractor shall implement the following during project decommissioning:</p> <ul style="list-style-type: none"> a. All applicable construction phase general protection measures shall be implemented during decommissioning. b. A 25<u>15</u>-mile-per-hour speed limit on paved or stabilized unpaved roads shall be applied for travel during decommissioning activities. Travel shall be confined to existing roads and previously disturbed areas. c. If any special-status wildlife is detected in the work area during decommissioning activities, no work shall be conducted until the individual moves on its own outside of the work area. d. Work outside areas with desert tortoise exclusion fencing shall only occur during daylight hours. <p>MM 4.4-9CC: During construction and decommissioning the project operator and/or contractor shall implement the following general avoidance and protective measures:</p> <ul style="list-style-type: none"> a. Prior to issuance of grading or building permits but after consulting with the United States Fish and Wildlife Service and California Department of Fish and Wildlife, the solar facility project site shall be fenced with a permanent desert tortoise exclusion fence to keep any desert tortoises and Mohave ground squirrels that may be using habitat adjacent to the facility from entering during construction, operations and maintenance, and dismantling and restoration (decommissioning) phases. The project proponent shall submit a fencing plan that outlines the location, type of fence, and construction methods to United States Fish and Wildlife Service and California Department of Fish and Wildlife for review. The fencing type shall follow current fence specifications established by the United States Fish and Wildlife Service. Desert tortoise-proof gates shall be established at all 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>photovoltaic solar facility entry points, unless otherwise approved by United States Fish and Wildlife Service and California Department of Fish and Wildlife. Workers installing the exclusion fencing shall have undergone the worker training program mandated in Mitigation Measure MM 4.4-2CC and a biological monitor under the authority of the project Lead Biologist shall be present during exclusion fencing installation.</p> <p>b. The fencing shall be routinely inspected with inspections after precipitation events of more than 1 inch at each ephemeral drainage crossing. Any damage to the fencing shall be repaired immediately or no later than 2 days following the observation.</p> <p>c. Following the construction of exclusion fencing around the solar facility perimeters, clearance surveys shall be conducted by the Lead Biologist to ensure that no desert tortoises, Mohave ground squirrels, or other listed wildlife species are trapped within the fenced area. The Lead Biologist may be assisted by biological monitors under the supervision of the Lead Biologist. The clearance surveys shall be conducted no more than 30 days prior to ground disturbing activities associated with construction, <u>Operations & Maintenance</u>, or decommissioning. Clearance surveys shall adhere to the current United States Fish and Wildlife Service clearance survey protocols described in the Desert Tortoise Field Manual, including a minimum of two clearance passes to be completed after desert tortoise-proof fencing is installed, which shall coincide with heightened desert tortoise activity from late March through May and September through October <u>or as outlined in the Project's Habitat Conservation Plan or Incidental Take Permit</u>. The Designated Biologist(s) shall perform pre activity surveys for desert tortoise and shall remain on-site daily until the construction period ends or exclusion fencing has been installed to preclude desert tortoises from entering a given work area (work area is completely enclosed with exclusionary fence). <u>The Designated Biologist will remain available even after the fence is installed and be called to the site if a tortoise or Mohave ground squirrel is found inside the fence, emphasizing in the tortoise awareness program that only agency-authorized biologists, not construction workers, are allowed to handle tortoises. The Designated Biologist shall monitor the exclusionary fence on a weekly basis after its installation to ensure its integrity and function are maintained until the end of construction.</u> United States Fish and Wildlife Service and California Department of Fish and Wildlife may impose modified or additional fencing requirements in</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>the project's final 2081 Permit and/or Habitat Conservation Plan, if required.</p> <p>d. If a desert tortoise or Mohave ground squirrel is found on the site during project construction, operation, or decommissioning, activity shall cease in the vicinity of the animal and the desert tortoise and/or Mohave ground squirrel shall be passively restricted to the area encompassing its observed position on the construction site and its point of entry shall be determined if possible. The Lead Biologist shall install a temporary tortoise-proof fence around this area. Concurrent with this effort, United States Fish and Wildlife Service and California Department of Fish and Wildlife shall be consulted regarding any additional avoidance, minimization, or mitigation measures that may be necessary. Once the desert tortoise and/or Mohave ground squirrel is observed leaving the site, work in the area can resume. A report shall be prepared by the Lead Biologist to document the activities of the desert tortoise and/or Mohave ground squirrel within the site; all fence construction, modification, and repair efforts; and movements of the desert tortoise and/or Mohave ground squirrel once again outside the permanent tortoise-proof fence. This report shall be submitted to wildlife and resource agency representatives and the California City Community Development Department. If passive relocation is not possible, desert tortoise and/or Mohave ground squirrel may also be translocated in accordance with a United States Fish and Wildlife Service and/or California Department of Fish and Wildlife approved Translocation Plan.</p> <p>e. Outside permanently fenced desert tortoise exclusion areas where desert tortoise may be present, the project operator shall limit the areas of disturbance in desert tortoise and Mohave ground squirrel habitat. Parking areas, new roads, pulling sites, and locations for staging, storage, excavation, and disposal shall be confined to the smallest areas possible. These areas shall be flagged, and disturbance activities, vehicles, and equipment shall be confined to these flagged areas.</p> <p>f. The Lead Biologist or biological monitor shall monitor any ground-disturbance activities that occur outside the desert tortoise exclusion fencing. Work outside areas with desert tortoise exclusion fencing shall only occur during daylight hours where desert tortoise are determined to be present.</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM 4.4-10CC: During construction the project operator and/or contractor shall implement the following general avoidance and protective measures:</p> <ul style="list-style-type: none"> a. The Lead Biologist or biological monitor shall monitor all ground-disturbance activities. Work shall only occur during daylight hours as practicable. Specialized testing activities, work on the project gen-tie line, and/or continuous operations (i.e., well drilling) may be conducted at night when necessary. Prior to conducting vegetation removal or grading activities inside the fenced area, a Lead Biologist or biological monitor under the supervision of a Lead Biologist shall survey the area immediately prior to conducting these activities to ensure that no listed or special-status animals or plants are present. The project Lead Biologist shall have the right to halt all activities that are in violation of the special species protection measures. Work shall proceed only after hazards to special species are removed and the species is no longer at risk. The project biologist shall have in her/his possession a copy of all the compliance measures while work is being conducted on-site. b. At the end of each work day, the Lead Biologist shall ensure that all trenches, bores, and other excavations outside the permanently fenced area in suitable habitat for desert tortoise have been inspected for the presence of desert tortoise and backfilled, if no tortoise is present. If backfilling is not feasible, these excavations shall be modified to ensure that they cannot potentially entrap desert tortoises (e.g., equipped with desert tortoise escape ramps, covered to prevent desert tortoise access, enclosed with a desert tortoise exclusion fence). All construction pipes, culverts, or similar structures that are stored at a construction site for one or more overnight periods and with a diameter of four inches or greater shall be thoroughly inspected for listed and special-status wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a special-status animal is discovered inside a pipe that section of pipe shall not be moved until the animal has moved off on its own. If the animal does not move in a timely manner, then the appropriate resource agency shall be consulted. c. Any construction pipe, culvert, or similar structure stored within desert tortoise habitat (i.e., outside areas with desert tortoise exclusion fencing) shall be inspected for desert tortoise before the material is moved, buried, or installed. 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> d. Water used for dust abatement shall be minimized, as allowed by California City Community Development Department, or managed in such a manner as to prevent the formation of puddles that could attract common ravens, predators, and other wildlife species to or near the site. e. No vehicle or equipment parked outside the fenced areas shall be moved prior to inspecting the ground beneath the vehicle or equipment for the presence of desert tortoise. If present, the desert tortoise shall be left to move on its own. f. Vehicular traffic to and from the project site shall use existing routes of travel. Cross country vehicle and equipment use outside designated work areas shall be prohibited. Vehicle speeds within the project site shall not exceed 25 miles per hour on roads within desert tortoise habitat. g. All vehicles and equipment shall be in proper working condition to ensure that there is no potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Lead Biologist shall be informed of any hazardous spills immediately and hazardous spills shall be cleaned up as soon as practical and the contaminated soil shall be properly disposed of at a licensed facility. h. A long-term trash abatement program shall be established for construction, operations, and decommissioning. Trash and food items shall be contained in closed containers and removed daily to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs. i. Workers shall be prohibited from bringing pets and firearms to the project and from feeding wildlife. j. Intentional killing or collection of either plant or wildlife species, including <u>both</u> listed species <u>and not listed species</u>, in the project site and surrounding areas shall be prohibited. The Lead Biologist, wildlife and resource agency representatives and California City Community Development Department shall be notified of any such occurrences within 24 hours. k. Construction monitoring shall be conducted by either the Lead Biologist or by biological monitors under the Lead Biologist's 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>supervision. The biological monitors shall have experience in monitoring for special-status wildlife.</p> <p>1. During construction, daily monitoring reports shall be prepared by the monitoring biologists. The Lead Biologist shall prepare a summary monitoring report for the wildlife and resource agencies and Kern County Planning and Natural Resources Department on a monthly basis, documenting the effectiveness and practicality of the protection measures that are in place and making recommendations for modifying the measures to enhance species protection, as needed. The report shall also provide information on the overall biological resources-related activities conducted, including the worker awareness training, clearance/pre-activity surveys, monitoring activities, and any observed special-status species, including injuries and fatalities.</p> <p>MM 4.4-11CC: The introduction of exotic plant species shall be avoided and controlled wherever possible and may be achieved through physical or chemical removal and prevention. Preventing exotic plants from entering the site via vehicular sources shall include measures such as implementing Trackclean or other method of vehicle cleaning for vehicles coming and going from the site. Earthmoving equipment shall be cleaned prior to transport to the project site. Weed-free rice straw or other certified weed-free straw shall be used for erosion control. Weed populations introduced into the site during construction shall be eliminated by chemical and/or mechanical means</p> <p>MM 4.4-12CC: In the event ground disturbance does not commence within two years of the last rare plant surveys, the project operator and/or contractor shall conduct preconstruction special-status plant survey(s) during the appropriate blooming period in accordance with the guidelines established by California Department of Fish and Wildlife (2009). Copies of these preconstruction surveys shall be provided to the appropriate wildlife agency and to the California City Community Development Department.</p> <p>If any botanical species with a California Native Plant Society rank of 1.B-2 or higher is found during the preconstruction surveys, the project operator and/or contractor shall delay ground disturbance activities and contact California Department of Fish and Wildlife for consultation. If required, in consultation with California Department of Fish and Wildlife, a Habitat Mitigation Plan shall be prepared that includes, at a minimum, the following:</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>a. Wherever feasible, if special-status plant species are observed within the proposed project footprint, the proposed project shall be designed by the Lead Biologist, to reduce impacts to the species through the establishment of preservation areas and buffers. If avoidance or minimization measures are implemented on-site, a Habitat Mitigation Plan shall be developed to ensure adequate management and conservation of botanical resources on-site over the long term. A copy of the Habitat Mitigation Plan shall be submitted to the California City Community Development Department.</p> <p>b. If the project would eliminate more than 10 percent of a local special-status plant population, the Habitat Mitigation Plan would also include the following:</p> <ol style="list-style-type: none"> 1. A figure illustrating the area of the population to be preserved, and the area of the population to be removed; 2. Identification of on-site or off-site preservation, restoration, or enhancement location(s); 3. Methods for preservation, restoration, enhancement, and/or population translocation; 4. A replacement ratio and success standard of 1:1 for occupied habitat lost unless a lower mitigation ratio and/or alternative mitigation is agreed to in coordination with California Department of Fish and Wildlife; 5. A five-year monitoring program to ensure mitigation success; 6. Adaptive management and remedial measures in the event that performance standards are not achieved; and 7. Financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity. <p>MM 4.4-13CC: Prior to the issuance of grading or building permits, the project operator shall:</p> <p>a. Provide evidence to the California City Community Development Department that consultation with the Kern County Agricultural Commissioner has taken place regarding removal of plants protected under the California Desert Native Plant Act;</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>b. If the Agricultural Commissioner determines that a permit is not required, the project operator shall provide a letter describing the consultation process and Commissioner's determinations, indicating that such authorization is not required. The letter shall also identify the Commissioner's points of contact and contact information;</p> <p>c. If required by the Agricultural Commissioner, the project operator shall provide evidence to the California City Community Development Department that a California Desert Native Plant Act removal permit has been obtained.</p> <p>MM 4.4-14CC: The following measures shall be implemented to reduce direct impacts to Sensitive Natural Communities, with the exception of western Joshua tree, for which the project has an approved 2084 permit. To the extent feasible, the following avoidance and minimization measures shall be implemented:</p> <p>a. Where feasible, the project shall be designed to avoid disturbance of spinescale scrub (<i>Atriplex spinifera</i> Shrubland Alliance) and winter fat scrubland (<i>Krascheninnikovia lanata</i> Shrubland Alliance)</p> <p>b. Where it is not feasible to avoid direct impacts to the spinescale scrub (<i>Atriplex spinifera</i> Shrubland Alliance) and winter fat scrubland (<i>Krascheninnikovia lanata</i> Shrubland Alliance) identified within the project site the project operator shall implement the following measures:</p> <ol style="list-style-type: none"> 1. Compensatory mitigation for impacts to Sensitive Natural Communities shall occur either on-site or off-site and would occur at a ratio no less than 1:1 for each Sensitive Natural Community impacted. A Habitat Mitigation and Monitoring Plan shall be prepared that outlines the compensatory mitigation in coordination with the California Department of Fish and Wildlife. 2. If on-site mitigation is proposed, the Habitat Mitigation and Monitoring Plan shall identify those portions of the site that contain suitable characteristics for restoration or enhancement of sensitive habitat. Determination of mitigation adequacy shall be based on comparison of the restored or enhanced habitat with similar, undisturbed habitat in the vicinity of the development site. If mitigation is implemented off-site, compensatory lands shall contain similar or more well-developed habitat and preferably be located in the vicinity of the site or watershed. Off- 	

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		<p>site land shall be preserved through a conservation easement and the Plan shall identify an approach for funding assurance for the long-term management of the compensatory land.</p> <p>c. Where direct impacts to western Joshua trees are unavoidable, if western Joshua tree is listed as a ‘candidate,’ ‘threatened,’ or ‘endangered’ species under the California Endangered Species Act at the time of issuance of a building or grading permit in areas that would involve the removal of western Joshua trees, the project proponent may pursue one of the following mitigation options:</p> <ol style="list-style-type: none"> 1. The project operator shall provide evidence to the California Community Development Department demonstrating that that impacts to western Joshua tree have been mitigated in accordance with Section 2084 of the California Fish and Game Code; or 2. The project operator shall mitigate for permanent impacts to western Joshua tree, should an Incidental Take Permit be required from California Department of Fish and Wildlife, through an approved mitigation bank, in-lieu fee program, or other California Department of Fish and Wildlife -approved process. Compensatory mitigation for permanent impacts to western Joshua tree shall be determined and acquired in consultation with the wildlife or resource agency. Verification of compliance shall be submitted to the California City Community Development Department prior to project construction in areas that would involve removal of western Joshua trees. <p>MM 4.4-15CC: The measures listed below shall be implemented prior to and during construction, operations, and decommissioning at the project site.</p> <p>a. The project operator has filed for an Incidental Take Permit for Mohave ground squirrel and desert tortoise with California Department of Fish and Wildlife, and a Habitat Conservation Plan with the United States Fish and Wildlife Service for desert tortoise. The project proponent shall mitigate for permanent impacts to suitable desert tortoise and Mohave ground squirrel habitat, through an approved mitigation bank, in-lieu fee program, or other mechanism accepted by California Department of Fish and Wildlife and/or United States Fish and Wildlife Service, as outlined in each agency's <u>agency's</u> respective permit. Compensatory mitigation acreage for permanent impacts to western burrowing owl nesting, occupied, and satellite</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>burrows and/or western burrowing owl habitat shall be determined and acquired in consultation with the wildlife or resource agency and may be mitigated alongside impact on covered species. Compensatory mitigation would provide habitat for desert tortoise, Mohave ground squirrel, and/or burrowing owl, as well as rare plants, State Waters (only if impacted by the project), and features covered under the Project's Lake and Streambed Alteration Agreement. The Final Interim Take Permit and approved Habitat Conservation Plan shall be submitted to California City Community Development Department prior to the onset of activities that have the potential to impact covered species.</p> <p>b. Prepare a Habitat Mitigation and Monitoring Plan (if required, should an incidental take permit be required for the project) or provide a copy of the project's incidental take permit that outlines all project compensatory mitigation for desert tortoise, Mohave ground squirrel, and burrowing owl, in coordination with the California Department of Fish and Wildlife and the Regional Water Quality Control Board.</p> <ol style="list-style-type: none"> 1. Compensatory mitigation shall provide ecological benefits to covered species that are similar to or better than the projects impacts on covered species. Mitigation sites in the vicinity of the project (eastern Kern County or western San Bernardino County) are preferable. 2. Mitigation shall meet California Department of Fish and Wildlife's durability requirements. 3. The plan, or Interim Take Permit, shall identify conservation actions, where applicable, to demonstrate that the compensatory lands are managed to provide durable environmental benefits to the covered species. 4. The plan or Interim Take Permit shall identify an approach for funding assurance for the long-term management of the conserved land. <p>MM 4.4-16CC: The following measures shall be implemented during project construction and decommissioning activities with respect to burrowing owls.</p> <p>a. A project Lead Biologist shall be on-site during all construction activities in potential burrowing owl habitat. A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>experience) shall conduct pre-construction surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows not more than 14 days prior to construction and/or prior to desert tortoise exclusion fencing installation. The survey methodology shall be consistent with the methods outlined in the Staff Report on Burrowing Owl Mitigation (CDFG 2012), and shall consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls (and may be combined with other pre-construction surveys). As burrows are searched, biologists shall also look for signs of American badger and desert kit fox. Copies of the survey results shall be submitted to California Department of Fish and Wildlife and the California City Community Development Department.</p> <p>b. If no burrowing owls are detected, no further mitigation is necessary. If burrowing owls are detected, no ground-disturbing activities, such as road construction or installation of solar arrays or ancillary facilities, shall be permitted within the distances specified in Table 2 of the Staff Report from an active burrow during the nesting and fledging seasons (April 1 to August 15 and August 16 to October 15, respectively), unless otherwise authorized by California Department of Fish and Wildlife. The specified buffer distance ranges from 656 feet to 1,640 feet, according to the time of year and the level of disturbance. Buffers shall be established in accordance with the table provided in Mitigation Measure MM 4.4-17e<u>16CC(c)</u>, below, and occupied burrows shall not be disturbed during the nesting season unless a qualified biologist approved by California Department of Fish and Wildlife, verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Burrowing owls shall not be moved or excluded from burrows during the breeding season (April 1 to October 15) <u>or as specified by the Incidental Take Permit issued by CDFW.</u></p> <p>c. During the nonbreeding (winter) season (October 16 to March 31), consistent with the table below (<i>Western Burrowing Owl Burrow Buffers</i>), all ground-disturbing work shall maintain a distance ranging from 164 feet to 1,640 feet from any active burrows depending on the level of disturbance. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be displaced</p>	

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		<p>from winter burrows according to recommendations made in the Staff Report on Burrowing Owl Mitigation (CDFG 2012).</p> <p style="text-align: center;">Western Burrowing Owl Burrow Buffers</p> <table><tr><th rowspan="2">Location</th><th rowspan="2">Time of Year</th><th colspan="3">Level of Disturbance (in feet)</th></tr><tr><th>Low</th><th>Medium</th><th>High</th></tr><tr><td>Nesting Sites</td><td>April 1 - Aug 15</td><td>656</td><td>1,640</td><td>1,640</td></tr><tr><td>Nesting Sites</td><td>Aug 16 - Oct 15</td><td>656</td><td>656</td><td>1,640</td></tr><tr><td>Any occupied burrow</td><td>Oct 16 - Mar 31</td><td>164</td><td>328</td><td>1,640</td></tr></table> <p>Source: CDFG 2012</p> <p>d. Burrowing owls should not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed by the Lead Biologist and approved by the applicable local California Department of Fish and Wildlife office and submitted to the California City Community Development Department. The plan shall include, at a minimum:</p> <ol style="list-style-type: none">1. Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding burrow scoping;2. Type of scope to be used and appropriate timing of scoping to avoid impacts;3. Occupancy factors to look for and what shall guide determination of vacancy and excavation timing (one-way doors should be left in place 48 hours to ensure burrowing owls have left the burrow before excavation, visited twice daily and monitored for evidence that owls are inside and can't escape i.e., look for sign immediately inside the door).4. How the burrow(s) shall be excavated. Excavation using hand tools with refilling to prevent reoccupation is preferable whenever possible (may include using piping to stabilize the burrow to	Location	Time of Year	Level of Disturbance (in feet)			Low	Medium	High	Nesting Sites	April 1 - Aug 15	656	1,640	1,640	Nesting Sites	Aug 16 - Oct 15	656	656	1,640	Any occupied burrow	Oct 16 - Mar 31	164	328	1,640	
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		<p>prevent collapsing until the entire burrow has been excavated and it can be determined that no owls reside inside the burrow);</p> <p>5. Removal of other potential owl burrow surrogates or refugia on-site;</p> <p>6. Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;</p> <p>e7. Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take;</p> <p>f8. How the impacted site shall continually be made inhospitable to burrowing owls and fossorial mammals (e.g., by allowing vegetation to grow tall, heavy disking, or immediate and continuous grading) until development is complete.</p> <p>g9. Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows to ensure take is avoided. Conduct daily monitoring for one week to confirm young of the year have fledged if the exclusion shall occur immediately after the end of the breeding season.</p> <p>h10. Excluded burrowing owls are documented using artificial or natural burrows on an adjoining mitigation site (if able to confirm by band re-sight).</p> <p>ie. In accordance with the Burrowing Owl Exclusion Plan, a qualified wildlife biologist shall excavate burrows using hand tools. Sections of flexible plastic pipe or heavy material shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. One-way doors shall be installed at the entrance to the active burrow and other potentially active burrows within 160 feet of the active burrow. Forty-eight hours after the installation of the one-way doors, the doors can be removed, and ground-disturbing activities can proceed. Alternatively, burrows can be filled to prevent reoccupation.</p> <p>jf. During construction and decommissioning activities, monthly and final compliance reports shall be provided to California Department of Fish and Wildlife, California Community Development Department, and other applicable resource agencies documenting the</p>	

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		<p>effectiveness of mitigation measures and the level of burrowing owl take associated with the proposed project.</p> <p>MM 4.4-17CC: The following measures shall be implemented during project construction and decommissioning activities with respect to burrowing owls:</p> <ol style="list-style-type: none"> a. Should burrowing owls be found on-site, compensatory mitigation for lost breeding and/or wintering habitat shall be implemented off-site in accordance with the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG 2012) and in consultation with California Department of Fish and Wildlife. At a minimum, the following recommendations shall be implemented: <ol style="list-style-type: none"> 1. Temporarily disturbed habitat shall be restored, if feasible, to pre-project conditions, including de-compacting soil and revegetating. 2. Permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows and <u>or</u> burrowing owl impacted are replaced based on a site-specific analysis and shall include: <p>Permanent conservation <u>or enhancement</u> of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals.</p> 3. Permanently protect or enhance mitigation land through coordination with California Department of Fish and Wildlife. If the project is located within the service area of a California Department of Fish and Wildlife-approved burrowing owl conservation bank, the project operator may purchase available burrowing owl conservation bank credits. 	

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		<p>b. Develop and implement a mitigation land management plan in accordance with the Staff Report on Burrowing Owl Mitigation (<u>California Department of Fish and Game CDFG 2012</u>) guidelines to address long-term ecological sustainability and maintenance of the site for burrowing owls.</p> <ol style="list-style-type: none"> 1. Fund the maintenance, management, or enhancement of mitigation land. 2. Habitat shall not be altered or destroyed, and burrowing owls shall not be excluded from burrows, until mitigation lands have been legally secured, are managed for the benefit of burrowing owls according to California Department of Fish and Wildlife-approved management, monitoring and reporting plans, and the endowment or other long-term funding mechanism is in place or security is provided until these measures are completed. 3. Mitigation lands or California Department of Fish and Wildlife-approved habitat enhancement projects should be on, adjacent or proximate to the impact site where possible and where habitat is sufficient to support burrowing owls present. 4. Consult with the California Department of Fish and Wildlife when determining off-site mitigation. <p>MM 4.4-18CC: Prior to the issuance of grading or building permit the following shall be implemented:</p> <ol style="list-style-type: none"> a. Preconstruction surveys shall be conducted by a qualified biologist for the presence of desert kit fox and American badger dens prior to installation of desert tortoise exclusion fencing. Copies of the completed surveys shall be submitted to California City Community Development Department. b. The survey shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes fallow agricultural land and scrub habitats. Surveys shall not be conducted for all areas of suitable habitat at one time; they shall be phased so that surveys occur within two weeks prior to disturbance of that portion of the site. If no potential American badger or desert kit fox dens are present, no further mitigation is required. 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>c. If potential dens are observed, the following measures are required to avoid potential adverse effects to American badger and desert kit fox:</p> <p>d1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers or foxes from reuse during construction. <u>Den excavation shall be prohibited during the pupping season to avoid possible pup mortality resulting from a lack of available refugia.</u></p> <p>d2. Passive relocation shall be prohibited during the pupping season, which is February 15 to June 1 for both species. If the qualified biologist determines that potential dens outside the breeding season may be active, the biologist shall notify the California Department of Fish and Wildlife. Entrances to the dens shall be blocked with soil, sticks, and debris for three to five days to discourage use of these dens prior to project disturbance. The den entrances shall be blocked to an incrementally greater degree over the three- to five-day period. After the qualified biologist determines that badgers and foxes have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction. The collapsing of active desert kit fox dens shall not occur without prior consultation with the California Department of Fish and Wildlife. A biologist shall remain on-call throughout construction in the event that badger or desert kit fox are present on the site.</p> <p>d3. Construction activities shall not occur within 50 feet of active badger dens. The project operator shall contact California Department of Fish and Wildlife immediately if natal badger dens are detected to determine suitable buffers and other measures to avoid take.</p> <p>d4. Construction activities shall not occur within 100 feet of active kit fox dens. The project operator shall contact California Department of Fish and Wildlife immediately if pupping kit fox dens are detected to determine suitable buffers and other measures to avoid take.</p> <p>MM 4.4-19CC: Not more than 14 days prior to site clearing and/or ground disturbance in a given area, a qualified biologist shall conduct a preconstruction avian nesting survey. Copies of the completed surveys shall</p>	

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		<p>be submitted to California City Community Development Department. The surveys shall be conducted as follows:</p> <ul style="list-style-type: none"> a. Surveys shall not be conducted for an entire project site at one time; they shall be phased so that surveys occur shortly before a portion of the site is disturbed. The surveying biologist must be qualified to determine the species, status, and nesting stage without causing intrusive disturbance. The survey shall cover all reasonably potential nesting locations on and within 300 feet of the project site—this includes ground nesting species (e.g., western burrowing owl). b. If construction is scheduled to occur during the non-nesting season (August 2 to January 31), no preconstruction surveys for birds or additional measures are required. c. If construction begins in the non-breeding season and proceeds continuously into the breeding season, no surveys are required. However, if there is a break of 14 days or more in construction activities during the breeding season, a new nesting bird survey shall be conducted before construction begins again. d. If active nests are found a 250-foot, no-disturbance buffer (or as otherwise determined in consultation with California Department of Fish and Wildlife) shall be created around the active nests. If the nest(s) are found in an area where ground disturbance is scheduled to occur, the project operator shall avoid the area either by delaying ground disturbance in the area until a qualified wildlife biologist has determined that the birds have fledged or by relocating the project component(s) to avoid the area. e. All vertical tubes used in project construction, such as solar mounts and chain link fencing poles shall be temporarily or permanently capped at the time they are installed to avoid the entrapment and death of special-status birds. <p>MM 4.4-20CC: Prior to issuance of a grading or building permit, the project operator shall Submit written documentation to the California City Community Development Department verifying that all power lines are designed in accordance with Avian Power Line Interaction Committee Guidelines. The project operator shall conform to the latest practices (as outlined in the Avian Power Line Interaction Committee Guidelines (2006) document) to protect birds from electrocution and collision.</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM 4.4-21CC: The project operator shall develop a site-specific Common Raven Management Plan in accordance with United States Fish and Wildlife Service guidelines and shall implement management measures for ravens in the project area. These measures may include but are not limited to designing structures to eliminate perches, waste management, road kill management, management of ponded water during construction and operations, and nest removal on structures within the photovoltaic solar facility site and along the transmission line.	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-147 to 1-148:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.4-2: <u>The project would</u> have have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or the USFWS.	Potentially significant	<p>MM 4.4-22CC: Prior to issuance of any grading or building permit, the project proponent/operator shall submit a report detailing how all identified ephemeral drainages are avoided to the extent practicable and shall be continually complied with during the life of the project. A copy of this report shall also be provided to the Lahontan Regional Water Quality Control Board and the California City Community Development Department. The report shall include information as shown below as a plan as necessary and shall outline compliance to the following:</p> <ul style="list-style-type: none"> a. Potential jurisdictional features (ephemeral drainages) identified in the jurisdictional delineation report shall be avoided to the extent practicable. This may be shown in plan form. b. Any material/spoils from project activities should be located away from jurisdictional areas. Jurisdictional areas shall be protected from stormwater run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and/or straw bale barriers, as appropriate. Protection measures shall follow project-specific criteria as developed in a Stormwater Pollution Prevention and Protection Plan and in the Hazardous Materials Business Plan. c. Prior to the start of construction activities, the project proponent/operator shall provide evidence that all fueling, hazardous materials storage areas, and operations and maintenance activities shall be sited at least 100 feet away from on-site drainages and other water 	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>features, as identified in the project-specific delineation of wetlands and waters.</p> <p>d. Any spillage of hazardous material shall be stopped if it can be done safely. The contaminated area shall be cleaned and any contaminated materials properly disposed. For all spills, the project foreman or designated environmental representative shall be notified.</p> <p>MM 4.4-23CC: If it is determined during final siting that jurisdictional ephemeral drainages cannot be avoided, the project proponent shall notify the California Department of Fish and Wildlife of potentially jurisdictional features and, if necessary, obtain a Lake and Streambed Alteration Agreement. If waters of the State are impacted, the owner/operator shall notify the Lahontan Regional Water Quality Control Board, and obtain a Water Quality Certification pursuant to Section 401 of the Clean Water Act, if required.</p>	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-148:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.4-3: The project would have 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.	Less than significant	Implement Mitigation Measures MM 4.9-ICC (see Section 4.9, <i>Hazards and Hazardous Materials</i> for full Mitigation Measure text), MM 4.10-ICC , MM 4.10-2CC (see Section 4.10, <i>Hydrology and Water Quality</i> for full Mitigation Measure text), MM 4.4-22CC and MM 4.4-23CC .	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-148:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.4-4: The project would 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	Implement Mitigation Measures MM 4.1-3CC (see Section 4.1, <i>Aesthetics</i> , for full Mitigation Measure text), MM 4.4-1CC through MM4.4-7CC , MM 4.4-9CC through MM 4.4-11CC , MM 4.4-18CC , and MM 4.4-20CC .	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-148:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.4-5: The project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Potentially significant	Implement Mitigation Measures MM 4.4-1CC through MM 4.4-8CC , and MM 4.4-10CC through MM 4.4-14CC .	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-154:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.6-1: The project would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation.	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-154:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.6-2: <u>The project would conflict</u> with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 154:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Less than significant	<u>Implement construction Mitigation Measure MM 4.3-1CC, as provided in Section 4.3, Air Quality, of this EIR.</u> No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-154:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.7-1: <u>The project would</u> 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.	Less than significant	No mitigation measures are <u>would be</u> required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-154 to 1-156:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>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.</p>	Potentially significant	<p>MM 4.7-1CC: Prior to the issuance of building or grading permits for the proposed project, the project proponent/operator shall conduct a final geotechnical study to confirm the findings of the preliminary geotechnical engineering report regarding soil conditions and geologic hazards on the project site.</p> <p>1a. The final geotechnical study must be signed by a California-registered and licensed professional engineer and must include, but not limited to the following:</p> <ul style="list-style-type: none"> a)1. Location of fault traces and potential for surface rupture and ground-shaking potential; b)2. Maximum considered earthquake and associated ground acceleration; c)3. Potential for seismically induced liquefaction, landslides, differential settlement, and mudflows; d)4. Stability of any existing or proposed cut-and-fill slopes; e)5. Collapsible or expansive soils; f)6. Foundation material type; g)7. Potential for wind erosion, water erosion, sedimentation, and flooding; h)8. Location and description of unprotected drainage that could be impacted by the proposed development; and, i)9. Recommendations for placement and design of facilities, foundations, and remediation of unstable ground and any seismic hazards. <p>2b. The project proponent/operator shall determine the final siting of project facilities based on the results of the geotechnical study and implement recommended measures to minimize geologic hazards. The project proponent/operator shall not locate project facilities on or immediately adjacent to a fault trace. All structures shall be offset at least 100 feet from any mapped fault trace. Alternatively, a detailed fault trenching investigation may be performed to accurately locate the</p>	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>fault trace(s) to avoid siting improvements on or close to these fault structures and to evaluate the risk of fault rupture. After locating the fault, alternate setback distances may be proposed.</p> <p>3c. The final geotechnical study shall be submitted for review and approval by the California City Public Works Department. The California City Public Works Department shall evaluate final facility siting design prior to the issuance of any building or grading permits to verify that geological constraints have been avoided. Final design requirements shall also be provided to the on-site construction supervisor and the Kern County Building Inspector to ensure compliance. A copy of the approved design shall be submitted to the California City Community Development Department.</p>	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-156:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.7-3: <u>The project would</u> D irectly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving seismic-related ground failure, including liquefaction.	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-156:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.7-4: <u>The project would</u> D irectly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving landslides.	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-156:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.7-5: The project would result in substantial soil erosion or the loss of topsoil.	Potentially significant	Implement mitigation measures MM 4.7-1CC , MM 4.10-1CC , and MM 4.10-2CC (see Section 4.10, Hydrology and Water Quality , of this EIR).	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-156:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.7-6: The project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Potentially significant	Implement Mitigation Measure MM 4.7-1CC .	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-156:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.7-7: The project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	Potentially significant	Implement Mitigation Measure MM 4.7-1CC .	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-156:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.7-8: The project would H have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater.	Potentially significant	No mitigation would be required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-156 to 1-159:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.7-9: The project would D directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, as defined in CEQA Guidelines Section 15064.	Potentially significant	<p>California City</p> <p>MM 4.7-2CC: The project proponent shall retain a qualified paleontologist, defined as a paleontologist meeting the Society for Vertebrate Paleontology’s Professional Standards to carry out all mitigation measures related to paleontological resources.</p> <ol style="list-style-type: none"> 1. 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. 2. The Paleontological Resources Awareness Training may be conducted in conjunction with other awareness training requirements. 3. 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 	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>artifact collecting or intentional disturbance of paleontological resources.</p> <p>4. The Paleontological Resources Awareness Training Guides shall be kept on-site and available for all personnel to review and be familiar with as necessary.</p> <p>MM 4.7-3CC: A qualified paleontologist or designated monitor shall be on-site initially to spot-check excavations below a depth of 1 foot below the ground surface in a given area. If it is determined that sediments consist of older alluvium, then full-time paleontological monitoring shall ensue. If sediments are determined to consist of Holocene Quaternary alluvium, paleontological monitoring shall be suspended until an excavation depth of 5 feet below the ground surface is reached in the area.</p> <p>a. The duration and timing of monitoring shall be determined by the qualified paleontologist in consultation with the California City Community Development Department and shall be based on a review of geologic maps and grading plans.</p> <p>1. During the course of monitoring, if the paleontologist can demonstrate based on observations of subsurface conditions that the level of monitoring should be reduced, the paleontologist, in consultation with the California City Community Development Department, may adjust the level of monitoring to circumstances, as warranted.</p> <p>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.</p> <p>c. Following the completion of construction, 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, recovery and curation efforts, and 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 California City Community Development Department and to an appropriate repository such as the Natural History Museum of Los Angeles County.</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM 4.7-4CC: If a paleontological resource is discovered, the monitor shall have the authority to temporarily divert the construction equipment within 50 feet of the find until it is assessed for scientific significance and collected. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammals) require more extensive excavation and longer salvage periods. In this case, the paleontologist should have the authority to temporarily direct, divert, or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.</p> <p>Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the Natural History Museum of Los Angeles County) along with all pertinent field notes, photos, data, and maps. The cost of curation is assessed by the repository and is the responsibility of the project owner.</p> <p>At the conclusion of laboratory work and museum curation, a final report shall be prepared describing the results of the paleontological mitigation monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The final report shall be submitted to the California City Community Development Department. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.</p>	

Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City; Pages 1-159 to 1-160:

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.9-1: The project would create a significant hazard to the public or the	Potentially significant	MM 4.9-1CC: During the life of the project, including decommissioning, the project operator shall prepare and maintain a Hazardous Materials	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
environment through the routine transport, use, or disposal of hazardous materials.		<p>Business Plan, as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 and in accordance with Kern County Ordinance Code 8.04.030, by submitting all the required information to the California Environmental Reporting System at http://cers.calepa.ca.gov/ for review and acceptance by the City of California City.</p> <p>a. The Hazardous Materials Business Plan shall:</p> <ol style="list-style-type: none"> 1. Delineate hazardous material and hazardous waste storage areas; 2. Describe proper handling, storage, transport, and disposal techniques, including which routes will be used to transport hazardous materials; 3. Describe methods to be used to avoid spills and minimize impacts in the event of a spill; 4. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; 5. Establish public and agency notification procedures for spills and other emergencies including fires; and 6. Include procedures to avoid or minimize dust from existing residual pesticide and herbicide use that may be present on the site. <p>b. The project proponent/operator shall provide the Hazardous Materials Business Plan to all contractors working on the project and shall ensure that one copy is available at the project site at all times.</p> <p>c. A copy of the approved Hazardous Materials Business Plan shall be submitted to the California City Community Development Department.</p>	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-160 to 1-162:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.9-2: <u>The project would</u> 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.</p>	Potentially significant	<p>Implement Mitigation Measures MM 4.9-1CC and MM 4.16-1CC (see Section 4.16, <i>Utilities and Service Systems</i>, for full mitigation measure text).</p> <p>MM 4.9-2CC: During project construction and operation, the project proponent/operator shall continuously comply with the following:</p> <ul style="list-style-type: none"> a. The construction contractor or project personnel shall use herbicides that are approved 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. f. A written record of all herbicide applications on the site, including dates and amounts shall be furnished to the California City Community Development Department. <p>MM 4.9-3CC: Prior to commencement of any on-site ground disturbing activities within 1,000 feet of the historical Munitions Response Site MRS-01 site (former Mojave Gunnery Range located in the northeastern portion of the solar facility site), the following measures shall be implemented:</p>	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> a. The project proponent shall implement all measures identified in the Construction Safety Plan prepared for the project (ECM Consultants 2020), including Unexploded Ordnance Awareness Training for site workers and construction support in any ground disturbing activities occurring within 1,000 feet of the historical MRS-01. The Unexploded Ordnance Awareness Training shall inform site workers of the potential munitions at the site and how to respond if such items are encountered. b. Where ground disturbance work is involved, a supervisor shall be Occupational Safety and Health Administration Hazardous Waste Operations and Emergency Response-trained in accordance with Standard 29 CFR 1910.120 and hold a current certification; c. Where ground disturbance work is involved, contractors shall be trained in identifying Unexploded Ordnance/Munitions and Explosives of Concern; d. If suspected munitions are encountered on-site at any time by an individual, the “3R’s of Explosives Safety” shall be followed. The “3R’s” include: <ul style="list-style-type: none"> 1. Recognize: when something may be a munition and the dangers involved; 2. Retreat: do not touch the potential munition and carefully leave the area; and, 3. Report: immediately report the finding to local law enforcement. e. The project proponent shall submit proof of compliance with this measure to the California City Community Development Department. <p>MM 4.9-4CC: During project construction, the project proponent/operator shall be required to abandon, in accordance with all applicable local, State, and federal regulations and protocols, including those implemented by the City of California City, any known and/or unknown (i.e., discovered during project ground disturbance activities) water wells located on-site, unless such wells are proposed for continued operation as part of the development.</p>	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-162:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.9-3: The project would Result result in a safety hazard for people residing or working in the project area, for a project located within the adopted Kern County Airport Land Use Compatibility Plan.	Potentially significant	<p>Implement Mitigation Measures MM 4.1-6CC and MM 4.1-7CC (see Section 4.1, <i>Aesthetics</i>, for full mitigation measure text).</p> <p>MM 4.9-5CC: Prior to issuance of building and grading permits for portions of the project that meet the Federal Aviation Administration’s noticing requirements, the project proponent/operator shall comply with the following:</p> <ul style="list-style-type: none"> a. Submit Form 7460-1 (Notification of Proposed Construction or Alteration) to the Federal Aviation Administration, in the form and manner prescribed in Code of Federal Regulation 77.17. b. Obtain a Federal Aviation Administration issued “Determination of No Hazard to Air Navigation” or make the Federal Aviation Administration’s recommended changes to the project. c. Provide documentation to the California City Community Development Department demonstrating the project would comply with the Kern County Zoning Ordinance Figure 19.08.160 that all project components in the flight area would create no significant military mission impact and a copy of the site plan has been provided to the appropriate military authority responsible for operations in the flight area. d. Provide documentation to the California City Community Development Department demonstrating that a copy of the final site plan has been provided to the operators of Mojave Air and Space Port. 	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-162:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.9-4: The project would impair implementation of, or physically interferes with, an adopted emergency response plan or emergency evacuation plan.	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-163:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.9-5: <u>The project would</u> Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Potentially significant	Implement Mitigation Measure MM 4.13-ICC (see Section 4.13, Public Services , for full mitigation measure text).	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-163 to 1-165:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-1: <u>The project would</u> Violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality.	Potentially significant	<p>Implement Mitigation Measure MM 4.9-ICC (see Section 4.9, Hazards and Hazardous Materials, for mitigation measure text.)</p> <p>MM 4.10-ICC: Prior to issuance of a grading permit, and prior to engagement of decommissioning activities, the project proponent/operator shall submit a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the Regional Water Quality Control Board—Lahontan Region. The SWPPP shall be designed to minimize runoff and shall specify best management practices to prevent all construction pollutants from contacting stormwater, with the intent of keeping sediment or any other pollutants from moving off-site and into receiving waters. The requirements of the SWPPP shall be incorporated into design specifications and construction contracts. Recommended best management practices to be incorporated in the SWPPP may include the following:</p> <ol style="list-style-type: none"> Minimization of vegetation removal. Implementing sediment controls, including silt fences as necessary. Installation of a stabilized construction entrance/exit and stabilization of disturbed areas. Properly containing and disposing of hazardous materials used for construction on-site. 	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> e. Properly covering stockpiled soils to prevent wind erosion. f. Proper protections and containment for fueling and maintenance of equipment and vehicles. g. Appropriate disposal of demolition debris, concrete and soil, and aggressively controlling litter. h. Cleanup of silt and mud on adjacent street due to construction activity. i. Checking all lined and unlined ditches after each rainfall. j. Restoring all erosion control devices to working order to the satisfaction of the Lahontan Regional Water Quality Control Board after each rainfall runoff. k. Installing additional erosion control measures as may be required due to uncompleted grading operations or unforeseen circumstances which may arise. <p>MM 4.10-2CC: Prior to the issuance of a grading permit, the project proponent/operator shall submit a final hydrologic study and drainage plan for review and approval by the California City Public Works Department. The final hydrologic study and drainage plan shall be designed to evaluate and minimize potential increases in runoff from the project site. The final hydrologic study and drainage plan shall include, but not be limited to the following:</p> <ul style="list-style-type: none"> a. Numerical stormwater model for the project site, which would evaluate existing and proposed (with project) drainage conditions during storm events ranging up to the 100- year event. b. Consideration of the potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation. c. Engineering recommendations to be incorporated into the project and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding on-site or off-site. 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>d. The final design of the solar arrays shall include 1 foot of freeboard clearance above the calculated maximum flood depths for the solar arrays or the finished floor of any permanent structures. Solar module sites located within a 100-year floodplain shall be graded to direct potential floodwaters without increasing the water surface elevations more than 1 foot or as required by Kern County's Floodplain Ordinance.</p> <p>e. The hydrologic study and drainage plan shall be prepared in accordance with the California City Grading Code, and approved by the California City Public Works Department prior to the issuance of grading permits.</p> <p>MM 4.10-3CC: Prior to issuance of a building permit for any on-site water treatment facilities, the project proponent/project operator shall provide evidence of compliance with any applicable Waste Discharge Requirements established by the Lahontan Regional Water Quality Control Board to the California City Public Works Department – Building and Safety Division.</p>	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-165:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-2: <u>The project would</u> substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-165:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-3: <u>The project would</u> substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion and/or sedimentation on-site or off-site.	Potentially significant	Implementation of Mitigation Measures MM 4.10-1CC and MM 4.10-2CC .	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-165:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-4: <u>The project would</u> substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff which would result in flooding on- or off-site.	Potentially significant	Implement Mitigation Measures MM 4.10-1CC and MM 4.10-2CC .	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-165 to 1-166:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-5: <u>The project would</u> substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would	Potentially significant	Implement Mitigation Measures MM 4.10-1CC through MM 4.10-3CC .	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.			

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-166:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-6: The project would substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.	Potentially significant	Implement Mitigation Measure MM 4.10-2CC.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-166:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-7: The project would Result result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	Potentially significant	Implement Mitigation Measures MM 4.9-1CC, MM 4.10-1CC, and MM 4.10-2CC.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-166:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-8: The project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Potentially significant	Implement Mitigation Measures MM 4.10-1CC and MM 4.10-2CC.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-166:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.11-1: The project would physically divide an established community.	<u>No impact</u>	<u>No mitigation measures are required.</u>	<u>No impact</u>

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-166 to 1-168:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.11-2: The project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation for the purpose of avoiding or mitigating an environmental effect.	Potentially significant	<p>Implement Mitigation Measure MM 4.9-5CC (see Section 4.9, <i>Hazards and Hazardous Materials</i>, for full mitigation text). MM 4.11-1CC: Prior to the issuance of any building permit, the project proponent/operator shall provide the California City Community Development Department with a Decommissioning Plan for review and approval. The plan shall be carried out by the proposed operator or a City contracted consulting firm(s) at a cost to be borne by the project proponent/operator.</p> <p>a. The Decommissioning Plan shall include, but is not limited to, the following:</p> <p>1. Factor in the cost to remove the solar panels and support structures, replacement of any disturbed soil from the removal of</p>	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>support structures (including all underground equipment), and control of fugitive dust on the remaining undeveloped land.</p> <p>2. Salvage value for the solar panels and support structures shall be included in the financial assurance calculations.</p> <p>3. The assumption, when preparing the estimate, is that the project proponent/operator is incapable of performing the work or has abandoned the solar facility, thereby resulting in the City hiring an independent contractor to perform the decommission work.</p> <p>b. In addition to submittal of a Decommissioning Plan, the project proponent/operator shall post or establish and maintain with California City financial assurances related to the deconstruction of the site as identified on the approved Decommissioning Plan should at any point in time the project proponent/operator determine it is not in their best interest to operate the facility. The financial assurances required prior to issuance of any building permit shall be established using one of the following:</p> <p>1. An irrevocable letter of credit;</p> <p>2. A surety bond;</p> <p>3. A trust fund in accordance with the approved financial assurances to guarantee the deconstruction work will be completed in accordance with the approved decommissioning plan; or</p> <p>4. Other financial assurances as reviewed and approved by the California City Community Development Department.</p> <p>e. The financial assurances documents shall include the following verbiage, including any required verbiage through California City Community Development Department's consultation and review with City Counsel:</p> <p>1. Financial institution or surety company shall give the California City a minimum of 120 days' notice of intent to terminate the letter of credit or bond.</p> <p>2. Financial assurances shall be reviewed annually by the respective City contracted consulting firm(s) at a cost to be borne by the project proponent/operator to substantiate that those adequate funds exist to ensure deconstruction of all solar panels and</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>support structures identified on the approved Decommissioning Plan.</p> <p>3. Should the project proponent/operator deconstruct the site on their own, the City will not pursue forfeiture of the financial assurance.</p> <p>4. Financial institution or surety company shall be licensed to conduct business in the state of California.</p> <p>d. Once deconstruction has occurred, financial assurances for that portion of the site will no longer be required and any financial assurance posted will be adjusted or returned accordingly. Any funds not utilized through decommissioning of the site by California City shall be returned to the project proponent/operator.</p> <p>e. Should any portion of the solar field not be in operational condition for a consecutive period of twenty-four (24) months, that portion of the site shall be deemed abandoned and shall be removed within sixty (60) days from the date a written notice is sent to the property owner and solar field owner, as well as the project proponent/operator, by California City. Within this sixty (60) day period, the property owner, solar field owner, or project proponent/operator may provide California City a written request and justification for an extension for an additional twelve (12) months.</p> <p>f. In no case shall a solar field which has been deemed abandoned be permitted to remain in place for more than forty-eight (48) months from the date the solar facility was first deemed abandoned.</p> <p>MM 4.11-2CC: Prior to the operation of the solar facility, the operator shall consult with the Department of Defense to identify the appropriate Frequency Management Office officials to coordinate the use of telemetry to avoid potential frequency conflicts with military operations.</p>	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-168 to 1-170:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Potentially significant	<p>MM 4.11-1CC: Prior to the issuance of any building permit, the project proponent/operator shall provide the California City Community Development Department with a Decommissioning Plan for review and approval. The plan shall be carried out by the proposed operator or a City-contracted consulting firm(s) at a cost to be borne by the project proponent/operator.</p> <p>a. The Decommissioning Plan shall include, but is not limited to, the following:</p> <ol style="list-style-type: none"> Factor in the cost to remove the solar panels and support structures, replacement of any disturbed soil from the removal of support structures (including all underground equipment), and control of fugitive dust on the remaining undeveloped land. Salvage value for the solar panels and support structures shall be included in the financial assurance calculations. The assumption, when preparing the estimate, is that the project proponent/operator is incapable of performing the work or has abandoned the solar facility, thereby resulting in the City hiring an independent contractor to perform the decommission work. <p>b. In addition to submittal of a Decommissioning Plan, the project proponent/operator shall post or establish and maintain with California City financial assurances related to the deconstruction of the site as identified on the approved Decommissioning Plan should at any point in time the project proponent/operator determine it is not in their best interest to operate the facility. The financial assurances required prior to issuance of any building permit shall be established using one of the following:</p> <ol style="list-style-type: none"> An irrevocable letter of credit; A surety bond; 	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><u>3. A trust fund in accordance with the approved financial assurances to guarantee the deconstruction work will be completed in accordance with the approved decommissioning plan; or</u></p> <p><u>4. Other financial assurances as reviewed and approved by the California City Community Development Department.</u></p> <p><u>c. The financial assurances documents shall include the following verbiage, including any required verbiage through California City Community Development Department's consultation and review with City Counsel:</u></p> <p><u>1. Financial institution or surety company shall give the California City a minimum of 120 days' notice of intent to terminate the letter of credit or bond.</u></p> <p><u>2. Financial assurances shall be reviewed annually by the respective City-contracted consulting firm(s) at a cost to be borne by the project proponent/operator to substantiate that those adequate funds exist to ensure deconstruction of all solar panels and support structures identified on the approved Decommissioning Plan.</u></p> <p><u>3. Should the project proponent/operator deconstruct the site on their own, the City will not pursue forfeiture of the financial assurance.</u></p> <p><u>4. Financial institution or surety company shall be licensed to conduct business in the state of California.</u></p> <p><u>d. Once deconstruction has occurred, financial assurances for that portion of the site will no longer be required and any financial assurance posted will be adjusted or returned accordingly. Any funds not utilized through decommissioning of the site by California City shall be returned to the project proponent/operator.</u></p> <p><u>e. Should any portion of the solar field not be in operational condition for a consecutive period of twenty-four (24) months, that portion of the site shall be deemed abandoned and shall be removed within sixty (60) days from the date a written notice is sent to the property owner and</u></p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p><u>solar field owner, as well as the project proponent/operator, by California City. Within this sixty (60) day period, the property owner, solar field owner, or project proponent/operator may provide California City a written request and justification for an extension for an additional twelve (12) months.</u></p> <p><u>f. In no case shall a solar field which has been deemed abandoned be permitted to remain in place for more than forty-eight (48) months from the date the solar facility was first deemed abandoned.</u></p> <p><u>MM 4.11-2CC: Prior to the operation of the solar facility, the operator shall consult with the Department of Defense to identify the appropriate Frequency Management Office officials to coordinate the use of telemetry to avoid potential frequency conflicts with military operations. Implement Mitigation Measures MM 4.11-1CC and MM 4.11-2CC.</u></p>	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-173:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.12-4: The project would expose people residing or working in the project area to excessive noise levels, for a project located within the Kern County Airport Land Use Compatibility Plan.	Potentially significant	Implement Mitigation Measure MM 4.9-45CC (see Section 4.9, Hazards and Hazardous Materials , for full text).	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-173:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Potentially significant	Implement Mitigation Measures MM 4.9-45CC and MM 4.12-1CC through MM 4.12-3CC .	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-173 to 1-178:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p>Impact 4.13-1: The project would result in substantial adverse physical impacts associated with the 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.</p>	Potentially significant	<p>MM 4.13-1CC: Prior to the issuance of grading or building permits, the project proponent/operator shall develop and implement a fire safety plan for use during construction, operation, and decommissioning.</p> <p>The project proponent/operator shall submit the plan, along with maps of the project site and access roads, to the California City Fire Department for review and approval. A copy of the approved fire safety plan shall be submitted to the California City Community Development Department prior to the issuance of any building permit or grading permits. The fire safety plan shall contain notification procedures and emergency fire precautions including, but not limited to, the following:</p> <ul style="list-style-type: none"> a. All internal combustion engines, both stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order. b. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. These vehicle types shall maintain their factory-installed (type) mufflers in good condition. c. Fire rules shall be posted on the project bulletin board at the contractor's field office and in areas visible to employees. d. Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials. e. Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires to prevent them from growing into more serious threats. f. The project proponent/operator shall restrict the use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to periods outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel. g. Building plans shall be included for the energy storage system to verify adherence to City and California Building Code standards. 	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>MM 4.13-2CC: The following Cumulative Impact Charge (CIC) shall be implemented as payment on approved Conditional Use Permit acreage.</p> <p>a. Submittal of Building Permit and Phasing</p> <ol style="list-style-type: none"> Any building permit 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. The map for either the total project or a phase shall calculate the Cumulative Impact Charge (CIC) net acreage as follows: <ol style="list-style-type: none"> Total gross acreage (Phase) Total acres for Operations and Maintenance building permanent accessory improvements Total acres for Energy Storage structure and permanent accessory improvements Total acres of recorded easements Formula: Net Acreage = (2)A minus the sum of [(2)B + (2)C + (2)D]. 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. All areas of buildings, accessory improvements and easement used in the calculations shall be shown on the submitted Phase Map. 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. <p>b. Calculation and Payment of Cumulative Impact Charge (CIC)</p> <ol style="list-style-type: none"> 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 	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>number of building permits or type of building permit issued, all such permits shall be suspended until the fee is paid in full.</p> <ol style="list-style-type: none"> 2. Payments shall be made to the California City Finance Department and labeled Cumulative Impact Charge (CIC) with the project name and phase number. 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 Cumulative Impact Charge (CIC) <p>MM 4.13-3CC: Written verification of ownership of the project shall be submitted to the California City Community Development Department by April 15 of each calendar year. If the project is sold to a city, county, or utility company with assessed taxes that total less than \$3,000 per megawatt per year, then that entity shall pay the taxes plus the amount necessary to equal the equivalent of \$3,000 per megawatt. The amount shall be paid for all years of operation. The fee shall be paid to the California City Finance Department by April 30 of each calendar year.</p> <p>MM 4.13-4CC: The project proponent/operator shall work with the City to determine how the use of sales and use taxes from construction of the project can be maximized. This process shall include, but is not necessarily limited to, the project proponent/operator obtaining a street address within the incorporated territory of California City for acquisition, purchasing and billing purposes, and registering this address with the State Board of Equalization. As an alternative to the aforementioned process, the project proponent/operator may make arrangements with California City for a guaranteed single payment that is equivalent to the amount of sales and use taxes that would have otherwise been received (less any sales and use taxes actually paid); with the amount of the single payment to be determined via a formula approved by California City. The project proponent/operator shall allow the City to use this sales tax information publicly for reporting purposes.</p> <p>MM 4.13-5CC: Prior to the issuance of any building permits on the property, the project operator shall submit a letter detailing the hiring efforts prior to commencement of construction, which encourages all contractors of the project site to hire at least 50 percent of their workers from local Kern County communities. The project operator shall provide the contractors a list of training programs that provide skilled workers and shall require the contractor to advertise locally for available jobs, notifying the training</p>	

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		programs of job availability, all in conjunction with normal hiring practices of the contractor.	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-176 to 1-178:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.14-1: <u>The project would</u> conflict with an applicable plan, ordinance or policy establishing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Potentially significant	<p>MM 4.14-ICC: Prior to the issuance of construction or building permits, the project proponent/operator shall:</p> <ul style="list-style-type: none"> a. Obtain all necessary encroachment permits for work within the road right-of-way or use of oversized/overweight vehicles that will utilize California City-maintained roads, which may require California Highway Patrol or a pilot car escort. Copies of the approved traffic plan and issued permits shall be submitted to the California City Community Development Department and California City Public Works Department, prior to the commencement of construction or decommissioning activities. b. Enter into a secured agreement with the City of California City to ensure that City roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the State and/or the City of California City. c. Prepare and submit a Construction Traffic Control Plan to the California City Public Works Department and the California Department of Transportation offices for District 9, as appropriate, for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and must include, but not be limited to, the following issues: <ul style="list-style-type: none"> 1. Timing of deliveries of heavy equipment and building materials; 2. Directing construction traffic with a flag person; 	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> 3. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic; 4. Ensuring access for emergency vehicles to the project site; 5. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections; 6. Maintaining access to adjacent property; and, 7. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project sites, and avoiding residential neighborhoods to the maximum extent feasible. d. Institute construction work hours as necessary, such that the arrival and/or departure times of workers would be staggered as necessary. e. Identifying vehicle safety procedures for entering and exiting site access roads. f. Submit documentation that identifies the roads to be used during construction. The project proponent/operator shall be responsible for repairing any damage to non-county maintained roads that may result from construction activities. The project proponent/operator shall submit a preconstruction video log and inspection report regarding roadway conditions for roads used during construction to the City of California City Community Development Department and California City Public Works Department. g. Within 30 days of completion of construction, the project proponent/operator shall submit a post-construction video log and inspection report to the City of California City. This information shall be submitted in DVD format. The City of California City, in consultation with the project proponent/operator's engineer, shall determine the extent of remediation required, if any. 	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-178:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.14-2: The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-178:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.14-3: The project would Substantially substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Potentially significant	Implementation of Mitigation Measure MM 4.14-1CC would be required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-178:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.14-4: The project would Result in inadequate emergency access.	Potentially significant	Implementation of Mitigation Measure MM 4.14-1CC would be required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-178:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.15-1a: The project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is listed or eligible for listing in the California Register of Historic Places, or in a local register of historical resources as defined in Public Resources Section 5020.1(k).	Potentially significant	Implement Mitigation Measures MM 4.5-1CC, MM 4.5-2CC, MM 4.5-4CC, and MM 4.5-5CC.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-178 to 1-179:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.15-1b: The project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Potentially significant	Implement Mitigation Measures MM 4.5-1CC, MM 4.5-2CC, MM 4.5-4CC, and MM 4.5-5CC.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-179:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.16-1: The project would require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.	Potentially significant	Implement Mitigation Measure MM 4.10-2CC . (See Section 4.10, <i>Hydrology and Water Quality</i> , for full text.)	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-179:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.16-2: The project would Have have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	Less than significant	No mitigation measures are required.	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Pages 1-179 to 1-180:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.16-3: The project would generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals.	Potentially significant	MM 4.16-1CC: During construction, operation, and decommissioning, debris and waste generated shall be recycled to the extent feasible. a. An on-site Recycling Coordinator shall be designated by the project proponent/operator to facilitate recycling as part of the Maintenance, Trash Abatement, and Pest Management Program.	Less than significant

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> b. The Recycling Coordinator shall facilitate recycling of all construction waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes. c. The on-site Recycling Coordinator shall also be responsible for ensuring waste requiring special disposal are handled according to state local regulations that are in effect at the time of disposal. d. Contact information of the coordinator shall be provided to the California City Community Development Department prior to issuance of building permits. e. The project proponent/operator shall provide a storage area for recyclable materials within the fenced project area that is clearly identified for recycling. This area shall be maintained on the site during construction, operations, and decommissioning. A site plan showing the recycling storage area shall be submitted prior to the issuance of any grading or building permit for the site. 	

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-180:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.16-4: The project would comply with Federal, State, and Local management and reduction statutes and regulations related to solid waste.	Potentially significant	Implement Mitigation Measure MM 4.16-1CC .	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-180:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.17-1: <u>The project would</u> Substantially <u>substantially</u> impair an adopted emergency response plan or emergency evacuation plan.	Less than significant	Implementation of Mitigation Measure MM 4.14-1CC would be required (see Section 4.14, <i>Traffic and Transportation</i> , for full Mitigation Measure text).	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-180:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.17-2: <u>The project would</u> Expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors.	Potentially significant	Implementation of Mitigation Measure MM 4.13-1CC would be required (see Section 4.13 , <i>Public Services</i> , for full Mitigation Measure text).	Less than significant

**Chapter 1, Executive Summary, Table 1-7, Summary of Impacts, Mitigation Measures, and Levels of Significance – California City;
Page 1-180:**

Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 4.17-3: <u>The project would</u> Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Potentially significant	Implementation of Mitigation Measure MM 4.13-1CC would be required (see Section 4.13 , <i>Public Services</i> , for full Mitigation Measure text).	Less than significant

Chapter 1, Executive Summary, Pages 1-23 to 1-180:

Page numbers updated to remove extra “1-“ in front of page number.

Chapter 3, Project Description, Page 3-4:

Figure 3-2, *Project Site Boundaries*, has been revised as follows.

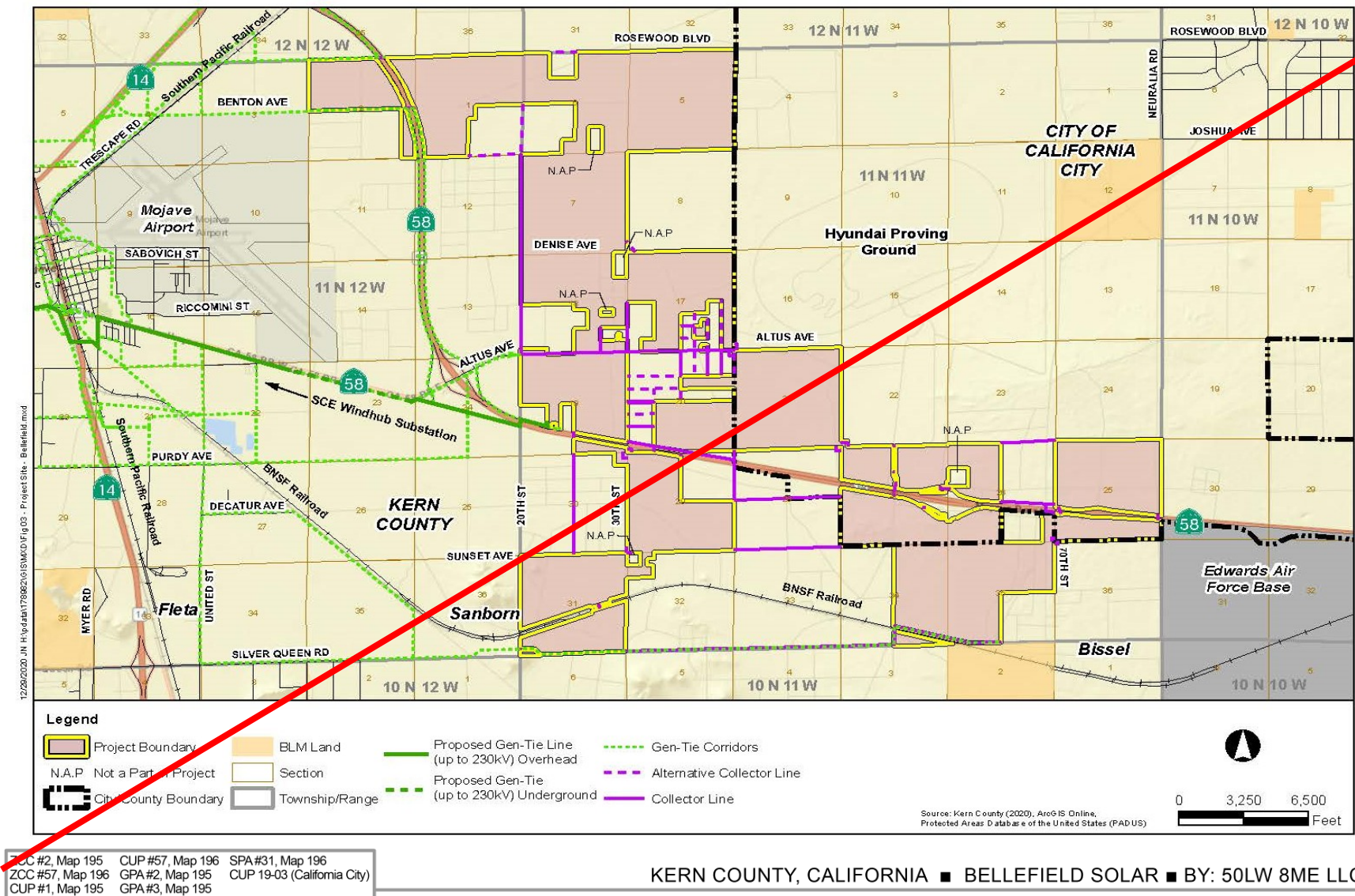


Figure 3-2: Project Site Boundaries

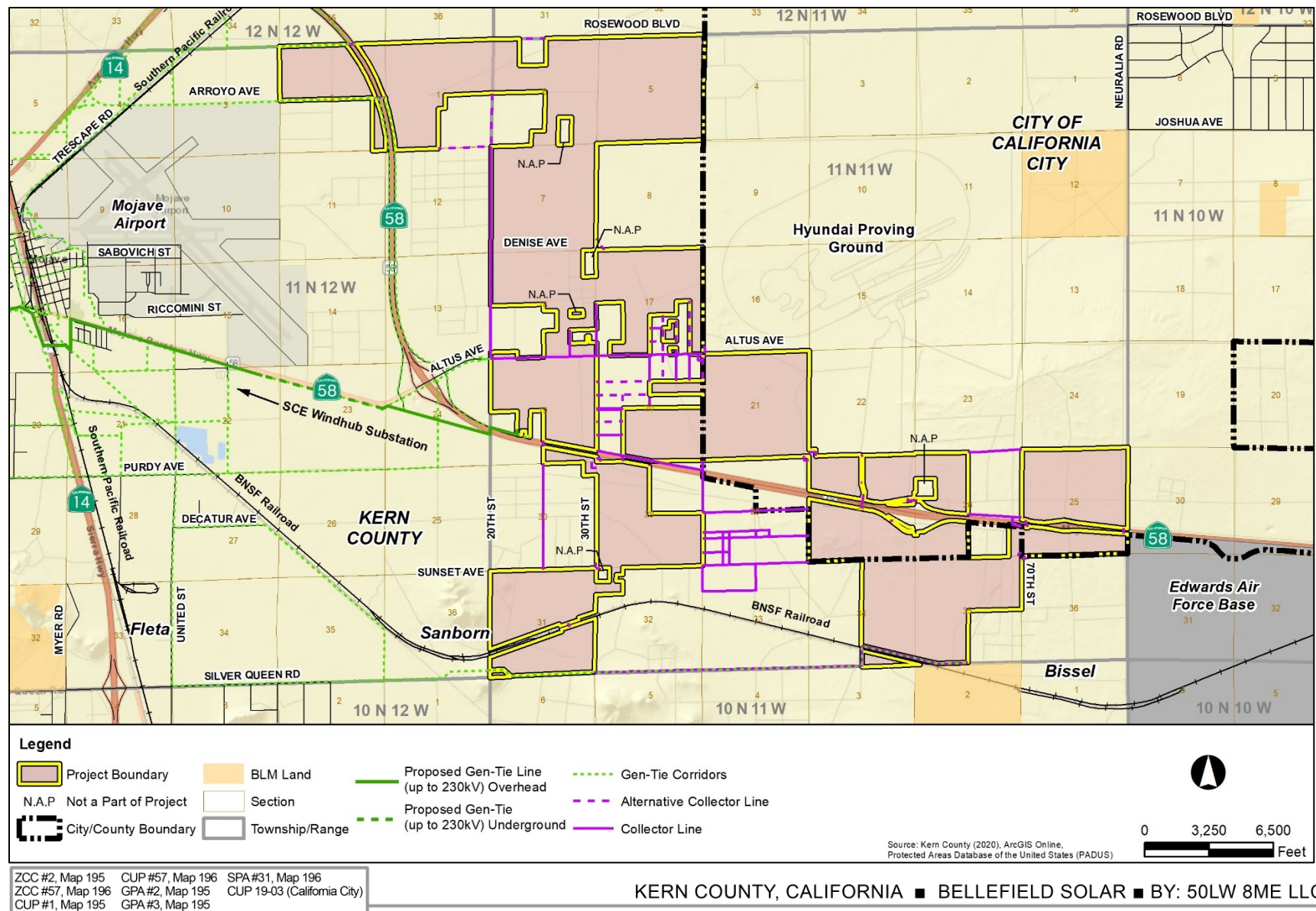


Figure 3-2: Project Site Boundaries

Chapter 3, Project Description, Page 3-25:

Figure 3-9, *Future Road Reservations Proposed to be Removed*, has been revised as follows to depict the updated future road reservations proposed to be removed.

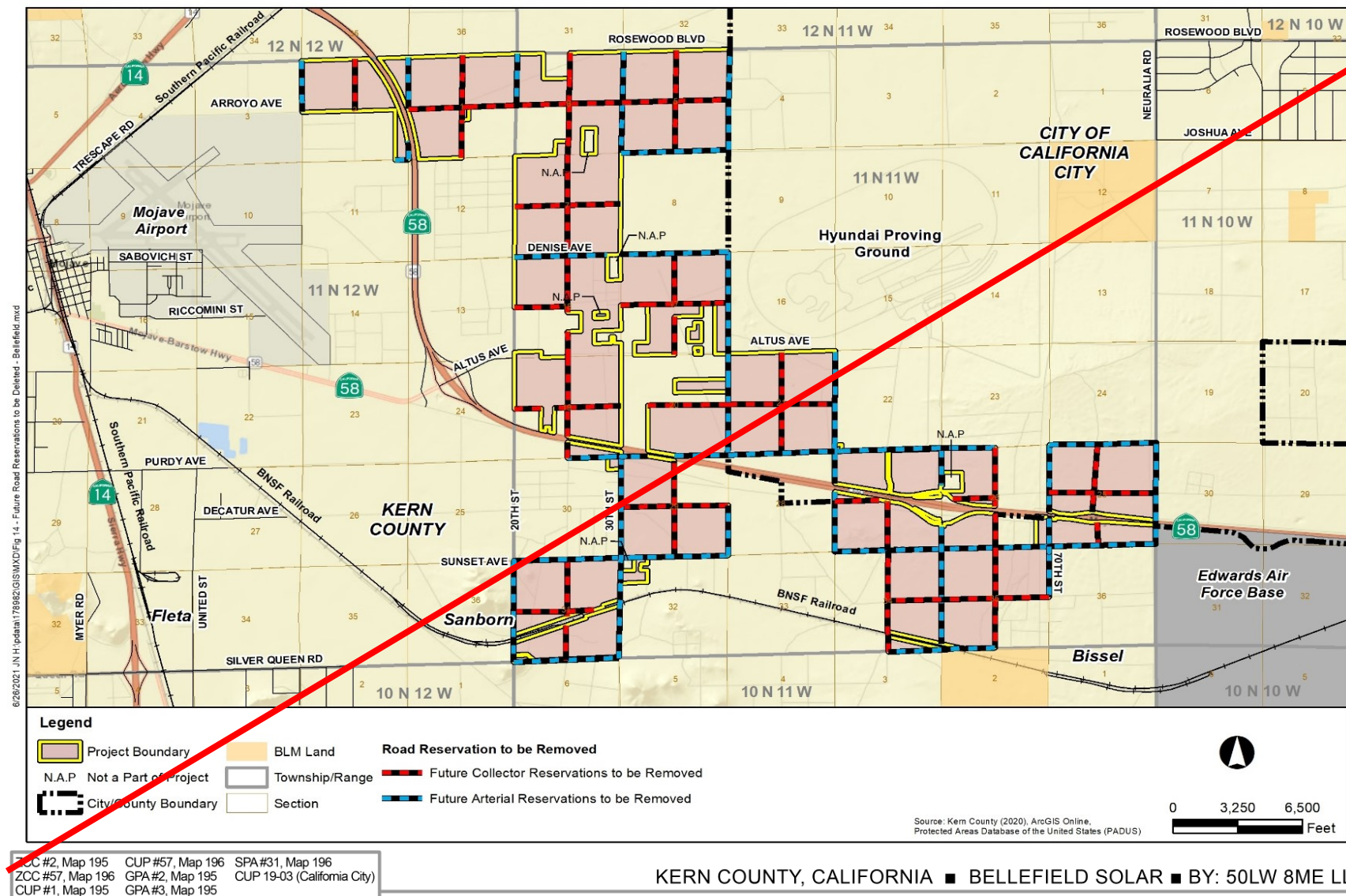


Figure 3-9: Future Road Reservations Proposed to be Removed

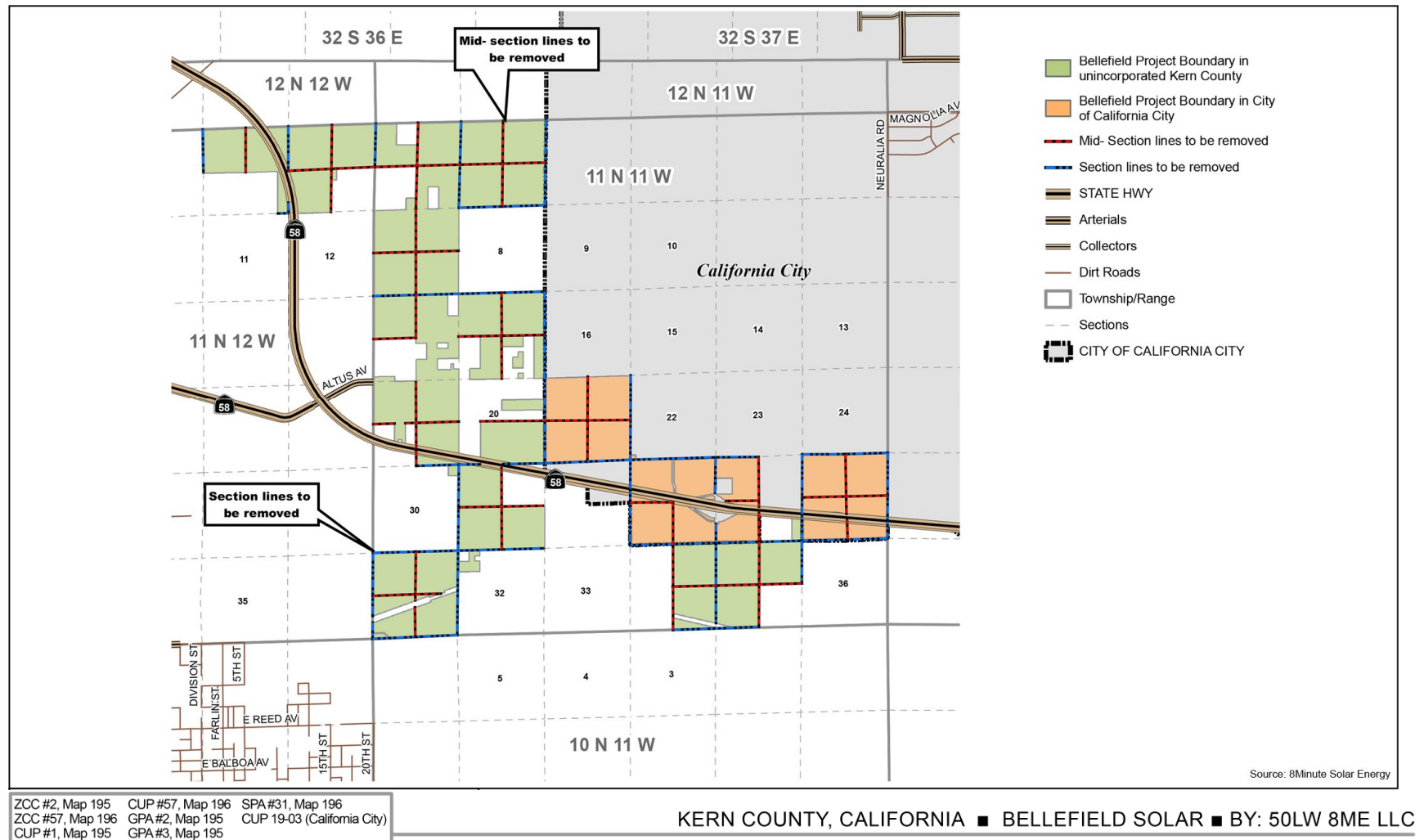


Figure 3-9: Future Road Reservations Proposed to be Removed

Chapter 3, Project Description, Pages 3-33 to 3-37:

Figures 3-15A through 3-15E, *Overall Site Plan – Key Map*, *Plan View – Part 1*, *Plan View – Part 2*, *Plan View – Part 3*, and *Overall Site Plan*, have been revised as follows to depict the updated configuration and characteristics of the proposed project.

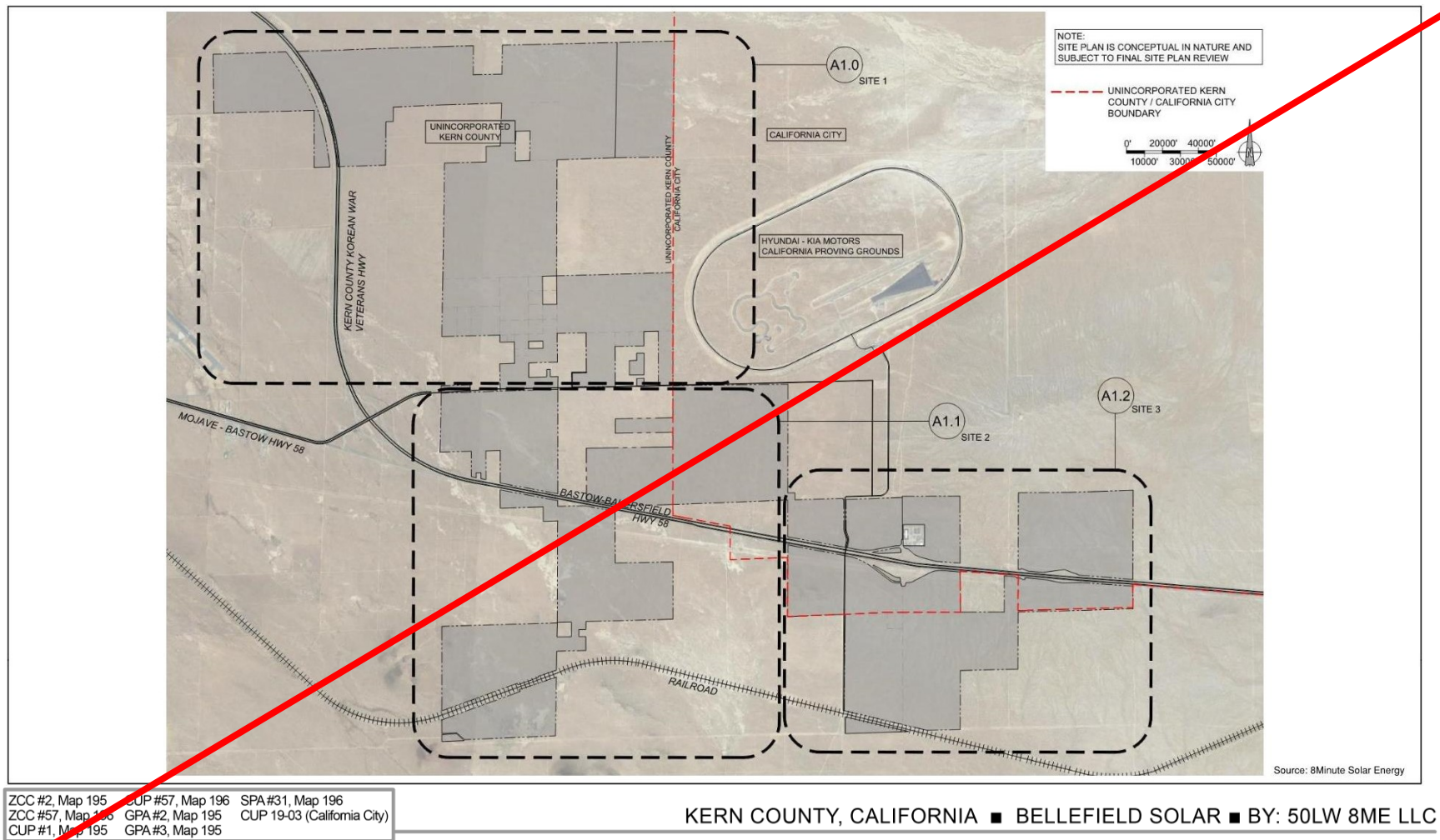


Figure 3-15A: Overall Site Plan – Key Map

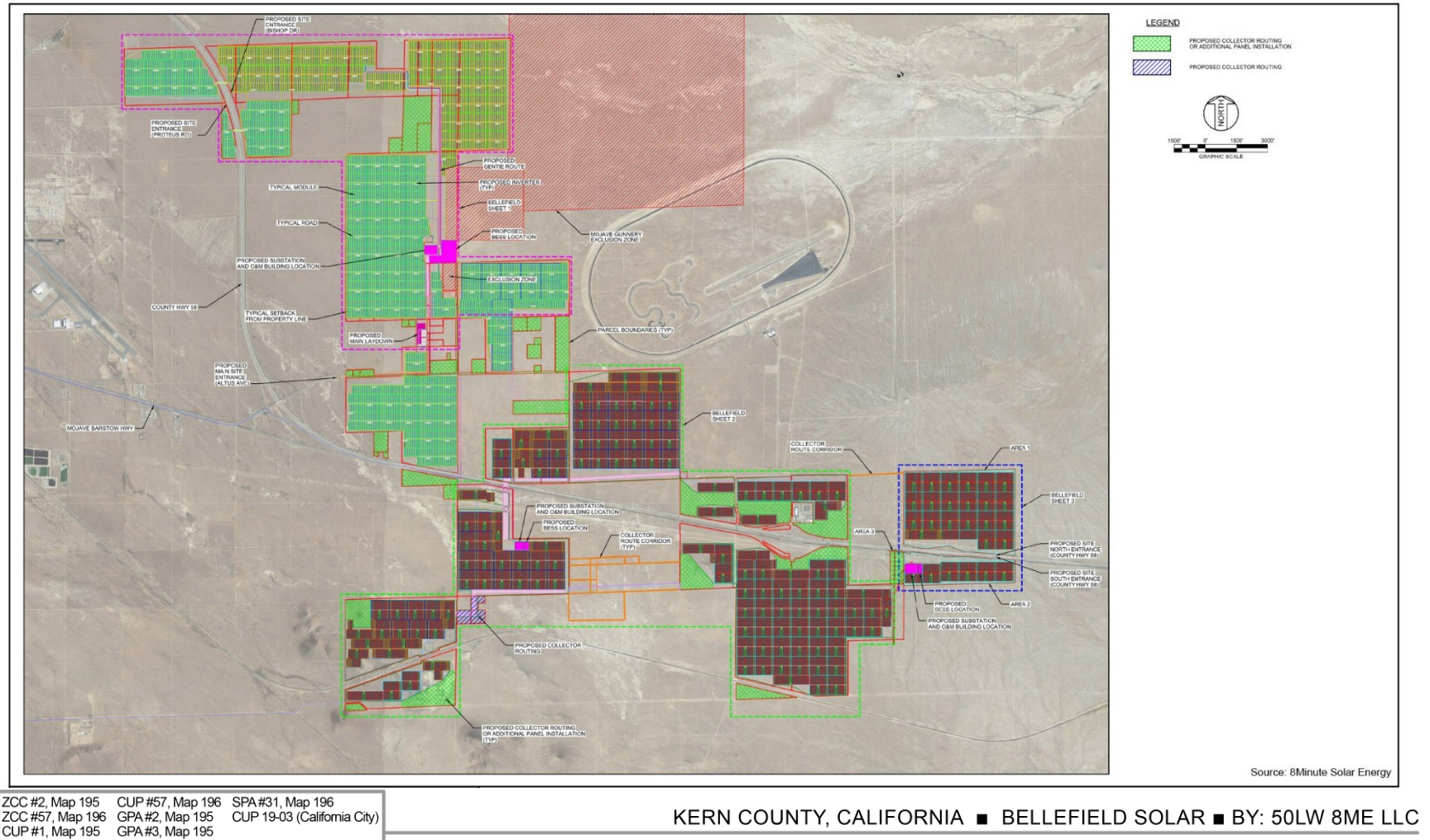


Figure 3-15A: Overall Site Plan – Key Map

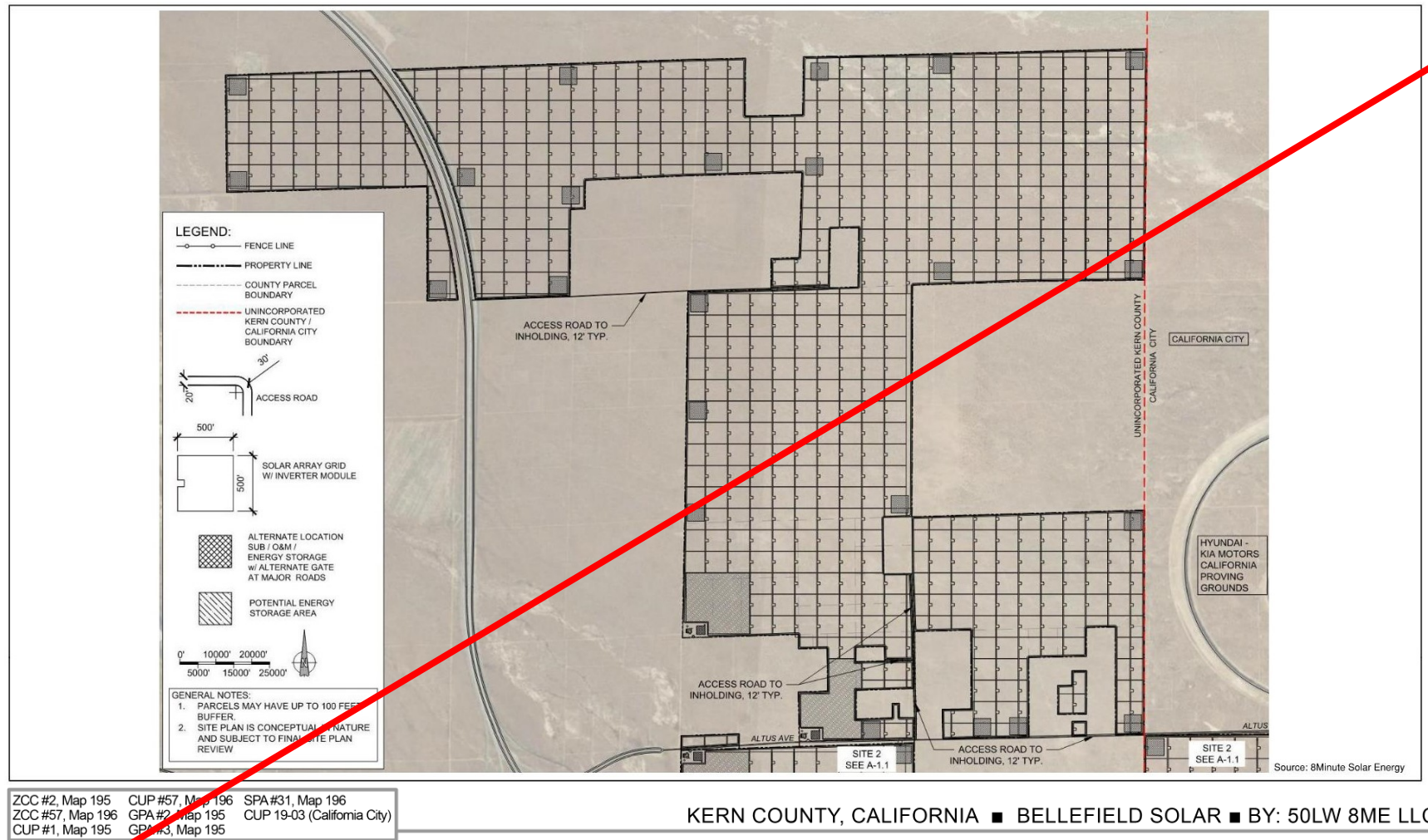


Figure 3-15B: Plan View – Part 1

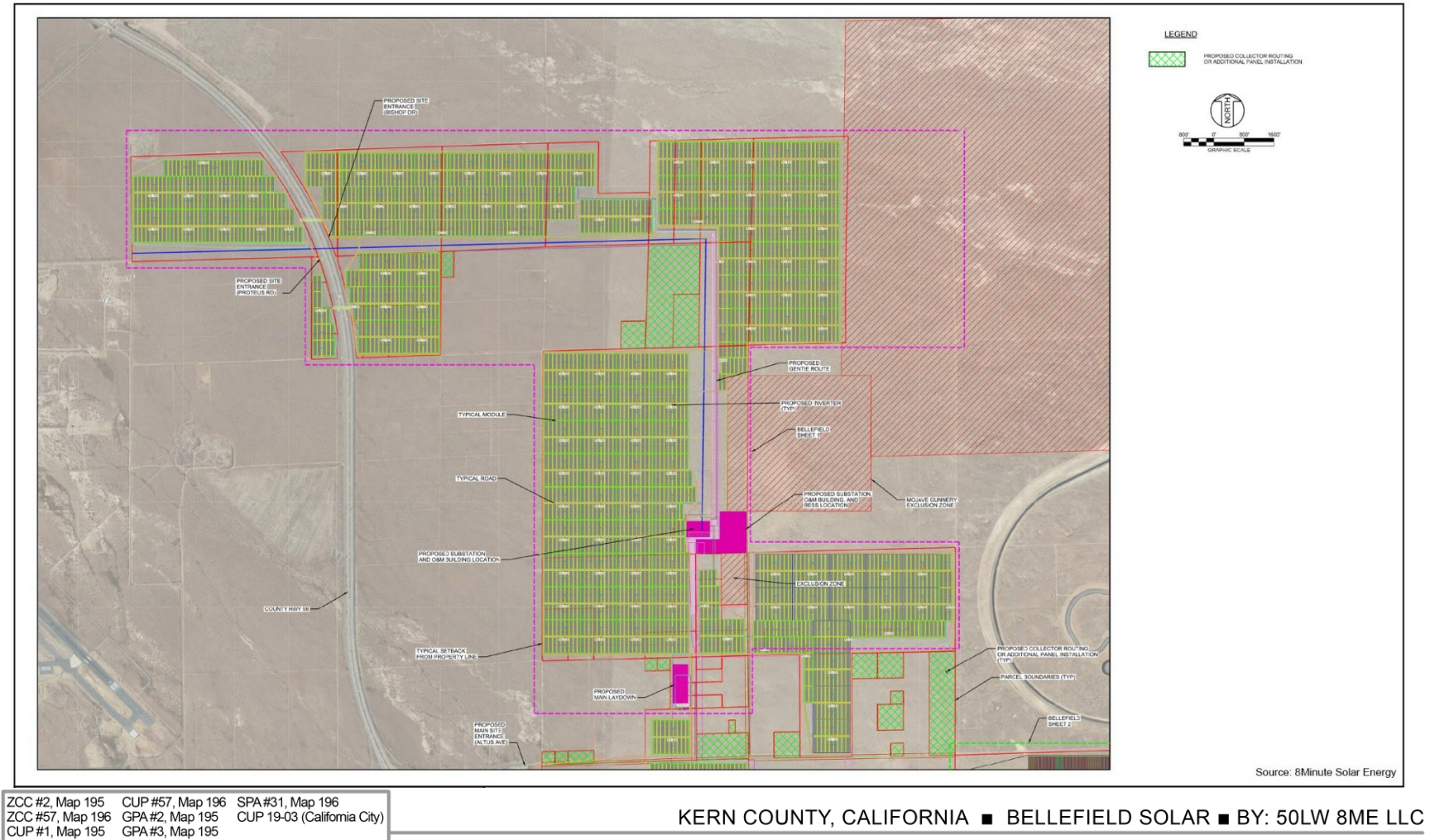


Figure 3-15B: Plan View – Part 1

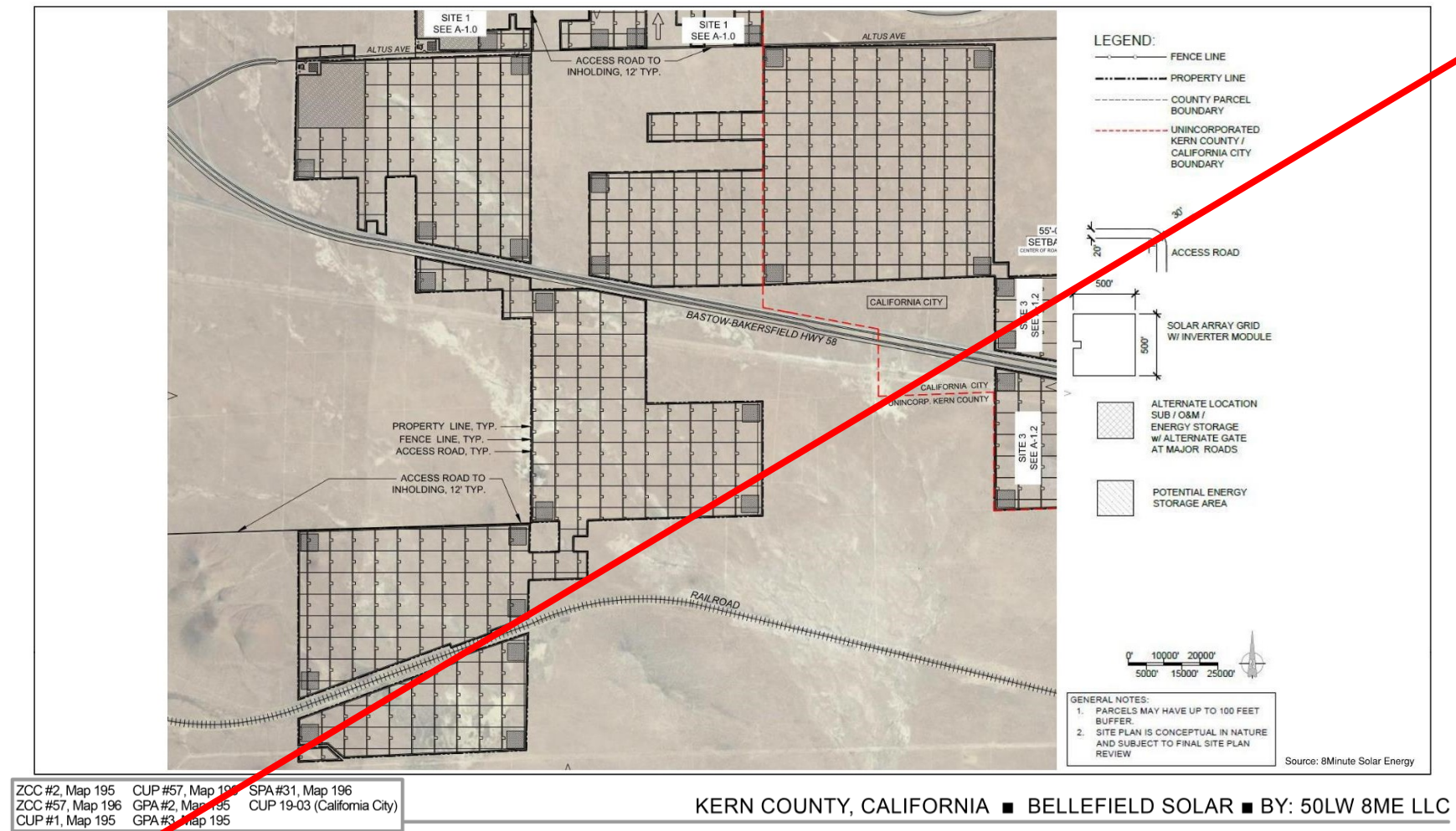


Figure 3-15C: Plan View – Part 2

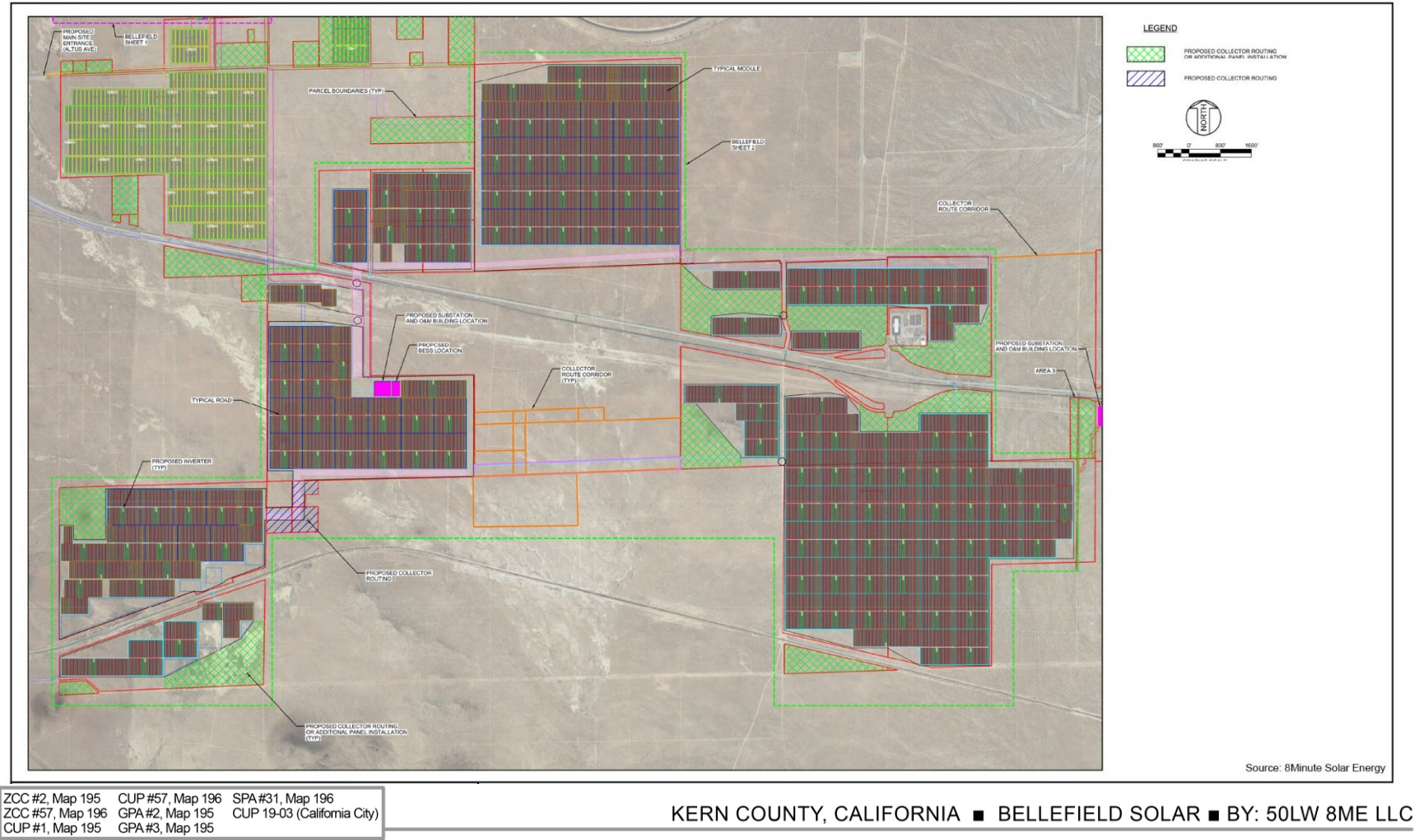


Figure 3-15C: Plan View – Part 2

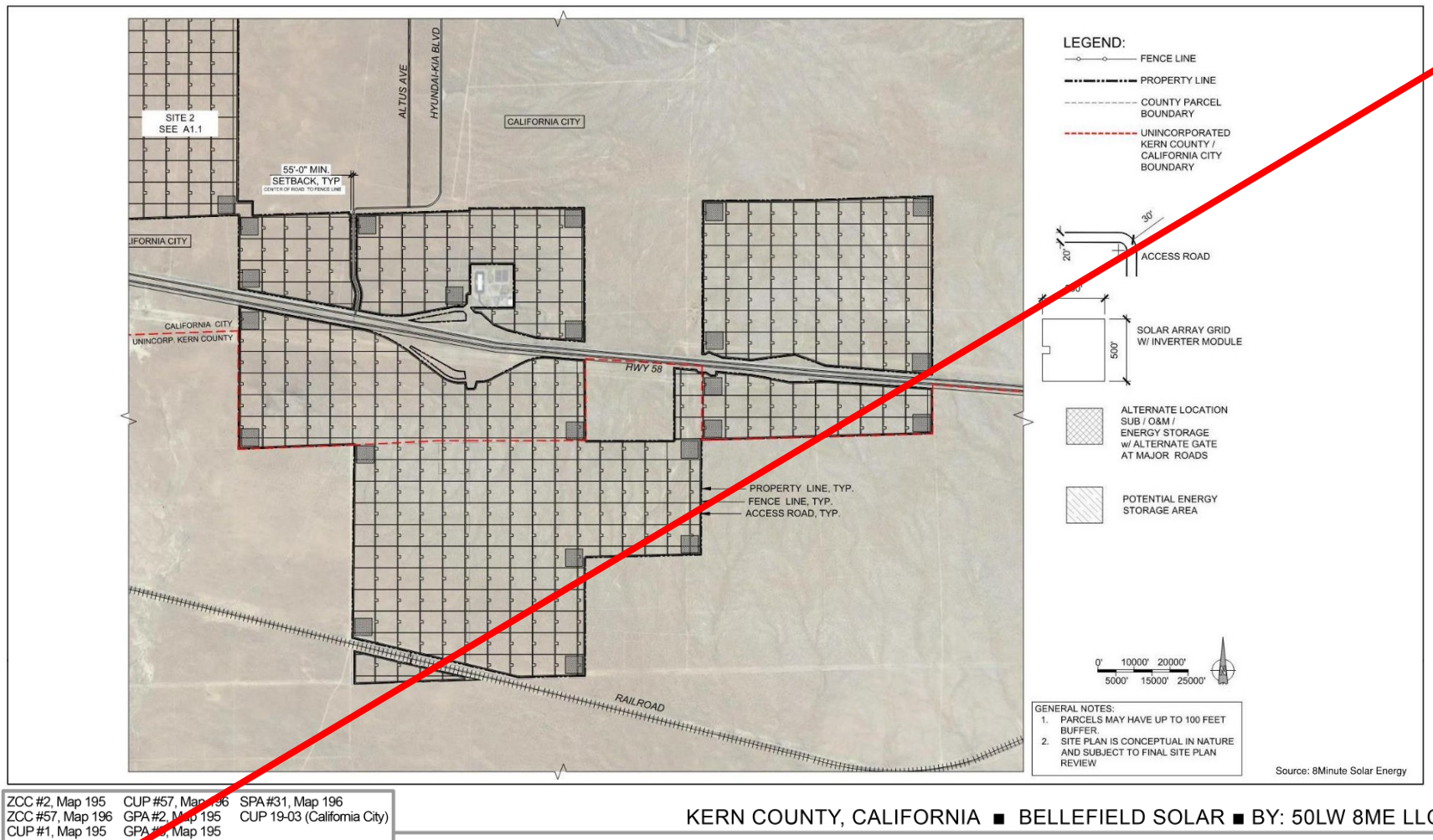


Figure 3-15D: Plan View – Part 3

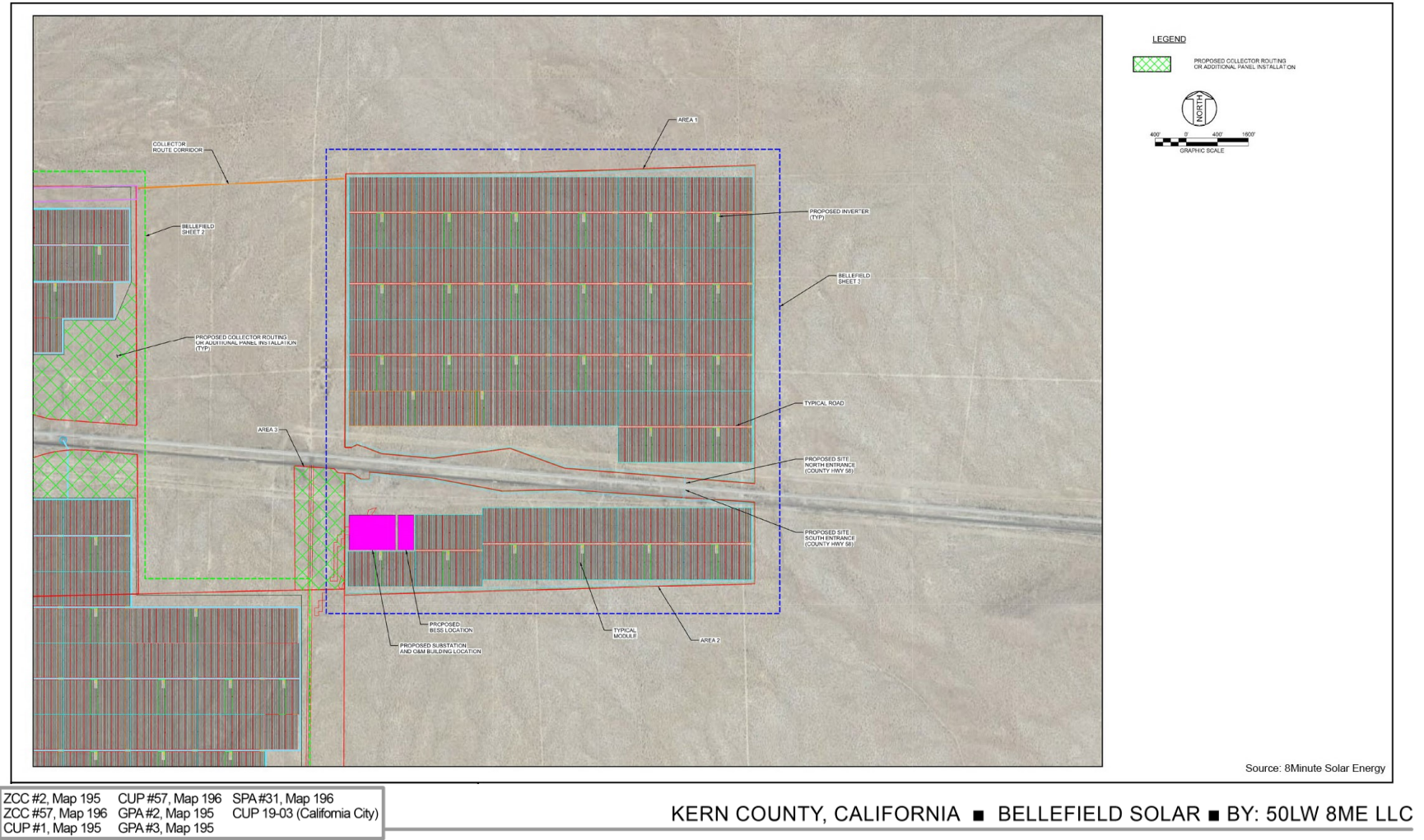


Figure 3-15D: Plan View – Part 3

Section 4.1, Aesthetics, Page 4.1-61:**Gen-~~t~~Tie**

Implement Mitigation Measure **MM 4.1-5KC through MM 4.1-7KC.**

Section 4.4, Biological Resources, Page 4.4-28 to 4.4-29:

MM 4.4-1KC: Prior to the issuance of grading or building permits, the project operator shall retain a Lead Biologist who meets the qualifications of an Authorized Biologist as defined by ~~United States Fish and Wildlife Service~~ and California Department of Fish and Wildlife to oversee compliance with protection measures for all listed and other special-status species. The project Lead Biologist shall be on-site during all fencing and ground disturbance activities throughout the construction phase. The project Lead Biologist shall have the right to halt all activities that are in violation of the special-status species protection measures described herein. Work shall proceed only after hazards to special-status species are removed and the species is no longer at risk. The project Lead Biologist shall have in her/his possession a copy of all the compliance measures while work is being conducted on-site.

MM 4.4-2KC: Prior to the issuance of grading or building permits, and for the duration of construction activities, all new construction workers at the project site shall attend a Worker Environmental Awareness Program (~~WEAP~~), developed and presented by the project Lead Biologist. As part of the ~~WEAP~~ training, the project Lead Biologist shall perform the following training-related tasks:

- a. Provide the training materials for ~~WEAP~~ Worker Environmental Awareness Program training. These materials shall include the measures and mitigation requirements for protected plant and wildlife species (e.g., avoidance and buffer requirements, nighttime construction limitations), and applicable fire protection measures. ~~WEAP~~ Worker Environmental Awareness Program training shall also include driver training to avoid and minimize collision risks with protected species, and reporting protocols in the event that any dead or injured wildlife are discovered.
- b. Send a copy of all ~~WEAP~~ Worker Environmental Awareness Program training materials to the Kern County Planning and Natural Resources Department.
- c. Maintain a list on-site of all employees who have undergone ~~WEAP~~ Worker Environmental Awareness Program training. A copy of this list shall be provided to the Kern County Planning and Natural Resources Department as necessary.

MM 4.4-3KC: The Worker Environmental Awareness Program (~~WEAP~~) shall be presented by the Lead Biologist and shall include information on the life history of each federal and state-listed species, as well as other special-status wildlife, natural communities, and plant species that may be encountered during construction activities, their legal protections, the definition of “take” under the federal and State Endangered Species Acts, measures the project operator is implementing to protect special-status species, reporting requirements, specific measures that each worker shall employ to avoid take

of special-status wildlife species, and penalties for violation of the acts. Training shall be documented as follows:

Section 4.4, Biological Resources, Page 4.4-42:

- MM 4.4-8KC:** The project operator and/or contractor shall implement the following during project decommissioning:
- All applicable construction phase general protection measures shall be implemented during decommissioning.
 - A ~~25~~15-mile-per-hour speed limit on paved or stabilized unpaved roads shall be applied for travel during decommissioning activities. Travel shall be confined to existing roads and previously disturbed areas.
 - If any special-status wildlife is detected in the work area during decommissioning activities, no work shall be conducted until the individual moves on its own outside of the work area.
 - Work outside areas with desert tortoise exclusion fencing shall only occur during daylight hours.

Section 4.4, Biological Resources, Pages 4.4-30 to 4.4-31 and 4.4-44 to 4.4-46:

- MM 4.4-9KC:** During construction and decommissioning the project operator and/or contractor shall implement the following general avoidance and protective measures:
- Prior to issuance of grading or building permits but after consulting with the United States Fish and Wildlife Service and California Department of Fish and Wildlife, the solar facility project site shall be fenced with a permanent desert tortoise exclusion fence to keep any desert tortoises and Mohave ground squirrels that may be using habitat adjacent to the facility from entering during construction, operations and maintenance, and dismantling and restoration (decommissioning) phases. The project proponent shall submit a fencing plan that outlines the location, type of fence, and construction methods to United States Fish and Wildlife Service and California Department of Fish and Wildlife for review. ~~The fencing type shall follow current fence specifications established by the United States Fish and Wildlife Service.~~ Desert tortoise-proof gates shall be established at all photovoltaic solar facility entry points, unless otherwise approved by United States Fish and Wildlife Service and California Department of Fish and Wildlife. Workers installing the exclusion fencing shall have undergone the worker training program mandated in Mitigation Measure **MM 4.4-2KC** and a biological monitor under the authority of the project Lead Biologist shall be present during exclusion fencing installation.
 - The fencing shall be routinely inspected with inspections after precipitation events of more than one inch at each ephemeral drainage crossing. Any damage to the fencing shall be repaired immediately or no later than 2 days following the observation.

- c. Following the construction of exclusion fencing around the solar facility perimeters, clearance surveys shall be conducted by the Lead Biologist to ensure that no desert tortoises, Mohave ground squirrels, or other listed wildlife species are trapped within the fenced area. The Lead Biologist may be assisted by biological monitors under the supervision of the Lead Biologist. The clearance surveys shall be conducted no more than 30 days prior to ground disturbing activities associated with construction, O&M, or decommissioning. Clearance surveys shall adhere to the current United States Fish and Wildlife Service clearance survey protocols described in the Desert Tortoise Field Manual, including a minimum of two clearance passes to be completed after desert tortoise-proof fencing is installed, which shall coincide with heightened desert tortoise activity from late March through May and September through October or as outlined in the Project's Habitat Conservation Plan or Incidental Take Permit. The Designated Biologist(s) shall perform pre activity surveys for desert tortoise and shall remain on-site daily until the construction period ends or exclusion fencing has been installed to preclude desert tortoises from entering a given work area (work area is completely enclosed with exclusionary fence). The Designated Biologist will remain available even after the fence is installed and be called to the site if a tortoise or Mohave ground squirrel is found inside the fence, emphasizing in the tortoise awareness program that only agency-authorized biologists, not construction workers, are allowed to handle tortoises. The Designated Biologist shall monitor the exclusionary fence on a weekly basis after its installation to ensure its integrity and function are maintained until the end of construction. United States Fish and Wildlife Service and California Department of Fish and Wildlife may impose modified or additional fencing requirements in the project's final 2081 Permit and/or Habitat Conservation Plan, if required.
- d. If a desert tortoise or Mohave ground squirrel is found on the site during project construction, operation, or decommissioning, activity shall cease in the vicinity of the animal and the desert tortoise and/or Mohave ground squirrel shall be passively restricted to the area encompassing its observed position on the construction site and its point of entry shall be determined if possible. The Lead Biologist shall install a temporary tortoise-proof fence around this area. Concurrent with this effort, United States Fish and Wildlife Service and California Department of Fish and Wildlife shall be consulted regarding any additional avoidance, minimization, or mitigation measures that may be necessary. Once the desert tortoise and/or Mohave ground squirrel is observed leaving the site, work in the area can resume. A report shall be prepared by the Lead Biologist to document the activities of the desert tortoise and/or Mohave ground squirrel within the site; all fence construction, modification, and repair efforts; and movements of the desert tortoise and/or Mohave ground squirrel once again outside the permanent tortoise-proof fence. This report shall be submitted to wildlife and resource agency representatives and the Kern County Planning and Natural Resources Department. If passive relocation is not possible, desert tortoise and/or Mohave ground squirrel may also be translocated in accordance with a United States Fish and Wildlife Service and/or California Department of Fish and Wildlife approved Translocation Plan.

- e. Outside permanently fenced desert tortoise exclusion areas where desert tortoise may be present, the project operator shall limit the areas of disturbance in desert tortoise and Mohave ground squirrel habitat. Parking areas, new roads, pulling sites, and locations for staging, storage, excavation, and disposal shall be confined to the smallest areas possible. These areas shall be flagged, and disturbance activities, vehicles, and equipment shall be confined to these flagged areas.
- f. The Lead Biologist or biological monitor shall monitor any ground-disturbance activities that occur outside the desert tortoise exclusion fencing. Work outside areas with desert tortoise exclusion fencing shall only occur during daylight hours where desert tortoise are determined to be present.

MM 4.4-9CC: During construction and decommissioning the project operator and/or contractor shall implement the following general avoidance and protective measures:

- a. Prior to issuance of grading or building permits but after consulting with the United States Fish and Wildlife Service and California Department of Fish and Wildlife, the solar facility project site shall be fenced with a permanent desert tortoise exclusion fence to keep any desert tortoises and Mohave ground squirrels that may be using habitat adjacent to the facility from entering during construction, operations and maintenance, and dismantling and restoration (decommissioning) phases. The project proponent shall submit a fencing plan that outlines the location, type of fence, and construction methods to United States Fish and Wildlife Service and California Department of Fish and Wildlife for review. ~~The fencing type shall follow current fence specifications established by the United States Fish and Wildlife Service.~~ Desert tortoise-proof gates shall be established at all photovoltaic solar facility entry points, unless otherwise approved by United States Fish and Wildlife Service and California Department of Fish and Wildlife. Workers installing the exclusion fencing shall have undergone the worker training program mandated in Mitigation Measure ~~MM 4.4-2KCC~~ and a biological monitor under the authority of the project Lead Biologist shall be present during exclusion fencing installation.
- b. The fencing shall be routinely inspected with inspections after precipitation events of more than one inch at each ephemeral drainage crossing. Any damage to the fencing shall be repaired immediately or no later than 2 days following the observation.
- c. Following the construction of exclusion fencing around the solar facility perimeters, clearance surveys shall be conducted by the Lead Biologist to ensure that no desert tortoises, Mohave ground squirrels, or other listed wildlife species are trapped within the fenced area. The Lead Biologist may be assisted by biological monitors under the supervision of the Lead Biologist. The clearance surveys shall be conducted no more than 30 days prior to ground disturbing activities associated with construction, O&M, or decommissioning. Clearance surveys shall adhere to the current United States Fish and Wildlife Service clearance survey protocols described in the Desert Tortoise Field Manual, including a minimum of two clearance passes to be completed after desert tortoise-

proof fencing is installed, which shall coincide with heightened desert tortoise activity from late March through May and September through October or as outlined in the Project's Habitat Conservation Plan or Incidental Take Permit. The Designated Biologist(s) shall perform pre activity surveys for desert tortoise and shall remain on-site daily until the construction period ends or exclusion fencing has been installed to preclude desert tortoises from entering a given work area (work area is completely enclosed with exclusionary fence). The Designated Biologist will remain available even after the fence is installed and be called to the site if a tortoise or Mohave ground squirrel is found inside the fence, emphasizing in the tortoise awareness program that only agency-authorized biologists, not construction workers, are allowed to handle tortoises. The Designated Biologist shall monitor the exclusionary fence on a weekly basis after its installation to ensure its integrity and function are maintained until the end of construction. United States Fish and Wildlife Service and California Department of Fish and Wildlife may impose modified or additional fencing requirements in the project's final 2081 Permit and/or Habitat Conservation Plan, if required.

- d. If a desert tortoise or Mohave ground squirrel is found on the site during project construction, operation, or decommissioning, activity shall cease in the vicinity of the animal and the desert tortoise and/or Mohave ground squirrel shall be passively restricted to the area encompassing its observed position on the construction site and its point of entry shall be determined if possible. The Lead Biologist shall install a temporary tortoise-proof fence around this area. Concurrent with this effort, United States Fish and Wildlife Service and California Department of Fish and Wildlife shall be consulted regarding any additional avoidance, minimization, or mitigation measures that may be necessary. Once the desert tortoise and/or Mohave ground squirrel is observed leaving the site, work in the area can resume. A report shall be prepared by the Lead Biologist to document the activities of the desert tortoise and/or Mohave ground squirrel within the site; all fence construction, modification, and repair efforts; and movements of the desert tortoise and/or Mohave ground squirrel once again outside the permanent tortoise-proof fence. This report shall be submitted to wildlife and resource agency representatives and the California City Community Development Department. If passive relocation is not possible, desert tortoise and/or Mohave ground squirrel may also be translocated in accordance with a United States Fish and Wildlife Service and/or California Department of Fish and Wildlife approved Translocation Plan.
- e. Outside permanently fenced desert tortoise exclusion areas where desert tortoise may be present, the project operator shall limit the areas of disturbance in desert tortoise and Mohave ground squirrel habitat. Parking areas, new roads, pulling sites, and locations for staging, storage, excavation, and disposal shall be confined to the smallest areas possible. These areas shall be flagged, and disturbance activities, vehicles, and equipment shall be confined to these flagged areas.
- f. The Lead Biologist or biological monitor shall monitor any ground-disturbance activities that occur outside the desert tortoise exclusion fencing. Work outside

areas with desert tortoise exclusion fencing shall only occur during daylight hours where desert tortoise are determined to be present.

Section 4.4, Biological Resources, Pages 4.4-32 & 4.4-47:

MM 4.4-10KC: During construction the project operator and/or contractor shall implement the following general avoidance and protective measures:

...

- j. Intentional killing or collection of either plant or wildlife species, including both listed species and not listed species, in the project site and surrounding areas shall be prohibited. The Lead Biologist, wildlife and resource agency representatives and Kern County Planning and Natural Resources Department shall be notified of any such occurrences within 24 hours.

MM 4.4-10CC: During construction the project operator and/or contractor shall implement the following general avoidance and protective measures:

...

- j. Intentional killing or collection of either plant or wildlife species, including both listed species and not listed species, in the project site and surrounding areas shall be prohibited. The Lead Biologist, wildlife and resource agency representatives and California City Community Development Department shall be notified of any such occurrences within 24 hours.

Section 4.4, Biological Resources, Pages 4.4-36:

MM 4.4-15KC: The measures listed below shall be implemented prior to and during construction, operations, and decommissioning at the project site.

- a. The project operator has filed for an Incidental Take Permit for Mohave ground squirrel and desert tortoise with California Department of Fish and Wildlife, and a Habitat Conservation Plan with the United States Fish and Wildlife Service for desert tortoise. The project proponent shall mitigate for permanent impacts to suitable ~~DT~~ desert tortoise and ~~MGS~~ Mohave ground squirrel habitat, through an approved mitigation bank, in-lieu fee program, or other mechanism accepted by California Department of Fish and Wildlife and/or United States Fish and Wildlife Service, as outlined in each ~~agencies~~ agency's respective permit. Compensatory mitigation acreage for permanent impacts to western burrowing owl nesting, occupied, and satellite burrows and/or western burrowing owl habitat shall be determined and acquired in consultation with the wildlife or resource agency and may be mitigated alongside impact on covered species. Compensatory mitigation would provide habitat for desert tortoise, Mohave ground squirrel, and/or burrowing owl, as well as rare plants, State Waters (only if impacted by the project), and features covered under the Project's Lake and Streambed Alteration Agreement. The Final Interim Take Permit

and approved Habitat Conservation Plan shall be submitted to Kern County prior to the onset of activities that have the potential to impact covered species.

Section 4.4, Biological Resources, Pages 4.4-49 to 4.4-51:

MM 4.4-16KC: The following measures shall be implemented during project construction and decommissioning activities with respect to burrowing owls.

- a. A project Lead Biologist shall be on-site during all construction activities in potential burrowing owl habitat. A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience) shall conduct pre-construction surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows not more than 14 days prior to construction and/or prior to desert tortoise exclusion fencing installation. The survey methodology shall be consistent with the methods outlined in the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG 2012), and shall consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls (and may be combined with other pre-construction surveys). As burrows are searched, biologists shall also look for signs of American badger and desert kit fox. Copies of the survey results shall be submitted to California Department of Fish and Wildlife and the Kern County Planning and Natural Resources Department.
- b. If no burrowing owls are detected, no further mitigation is necessary. If burrowing owls are detected, no ground-disturbing activities, such as road construction or installation of solar arrays or ancillary facilities, shall be permitted within the distances specified in Table 2 of the Staff Report from an active burrow during the nesting and fledging seasons (April 1 to August 15 and August 16 to October 15, respectively), unless otherwise authorized by California Department of Fish and Wildlife. The specified buffer distance ranges from 656 feet to 1,640 feet, according to the time of year and the level of disturbance. Buffers shall be established in accordance with the table provided in Mitigation Measure **MM 4.4-~~17KC~~16KC(c)**, below, and occupied burrows shall not be disturbed during the nesting season unless a qualified biologist approved by California Department of Fish and Wildlife, verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Burrowing owls shall not be moved or excluded from burrows during the breeding season (April 1 to October 15) or as specified by the Incidental Take Permit.
- c. During the nonbreeding (winter) season (October 16 to March 31), consistent with the table below (*Western Burrowing Owl Burrow Buffers*), all ground-disturbing work shall maintain a distance ranging from 164 feet to 1,640 feet from any active burrows depending on the level of disturbance. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be displaced from winter burrows according to recommendations made in the Staff

Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG 2012).

Western Burrowing Owl Burrow Buffers

Location	Time of Year	Level of Disturbance (in feet)		
		Low	Medium	High
Nesting Sites	April 1 - Aug 15	656	1,640	1,640
Nesting Sites	Aug 16 - Oct 15	656	656	1,640
Any occupied burrow	Oct 16 - Mar 31	164	328	1,640
Source: CDFG 2012				

- d. Burrowing owls should not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed by the Lead Biologist and approved by the applicable local California Department of Fish and Wildlife office and submitted to the Kern County Planning and Natural Resources Department. The plan shall include, at a minimum:
 1. Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding burrow scoping;
 2. Type of scope to be used and appropriate timing of scoping to avoid impacts;
 3. Occupancy factors to look for and what shall guide determination of vacancy and excavation timing (one-way doors should be left in place 48 hours to ensure burrowing owls have left the burrow before excavation, visited twice daily and monitored for evidence that owls are inside and can't escape i.e., look for sign immediately inside the door).
 4. How the burrow(s) shall be excavated. Excavation using hand tools with refilling to prevent reoccupation is preferable whenever possible (may include using piping to stabilize the burrow to prevent collapsing until the entire burrow has been excavated and it can be determined that no owls reside inside the burrow);
 5. Removal of other potential owl burrow surrogates or refugia on-site;
 6. Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;
 7. Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take;
 8. How the impacted site shall continually be made inhospitable to burrowing owls and fossorial mammals (e.g., by allowing vegetation to grow tall, heavy disking, or immediate and continuous grading) until development is complete.
 9. Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows to ensure take is avoided. Conduct daily monitoring

for one week to confirm young of the year have fledged if the exclusion shall occur immediately after the end of the breeding season.

~~h~~10. Excluded burrowing owls are documented using artificial or natural burrows on an adjoining mitigation site (if able to confirm by band re-sight).

~~i~~e. In accordance with the Burrowing Owl Exclusion Plan, a qualified wildlife biologist shall excavate burrows using hand tools. Sections of flexible plastic pipe or heavy material shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. One-way doors shall be installed at the entrance to the active burrow and other potentially active burrows within 160 feet of the active burrow. Forty-eight hours after the installation of the one-way doors, the doors can be removed, and ground-disturbing activities can proceed. Alternatively, burrows can be filled to prevent reoccupation.

~~j~~f. During construction and decommissioning activities, monthly and final compliance reports shall be provided to California Department of Fish and Wildlife, the Kern County Planning and Natural Resources Department, and other applicable resource agencies documenting the effectiveness of mitigation measures and the level of burrowing owl take associated with the proposed project.

Section 4.4, Biological Resources, Pages 4.4-51 to 4.4-52:

MM 4.4-17KC: The following measures shall be implemented during project construction and decommissioning activities with respect to burrowing owls.

- a. Should burrowing owls be found on-site, compensatory mitigation for lost breeding and/or wintering habitat shall be implemented off-site in accordance with the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG 2012) and in consultation with California Department of Fish and Wildlife. At a minimum, the following recommendations shall be implemented:
 1. Temporarily disturbed habitat shall be restored, if feasible, to pre-project conditions, including de-compacting soil and revegetating.
 2. Permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows ~~and~~ or burrowing owl impacted are replaced based on a site-specific analysis and shall include: Permanent conservation or enhancement of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals.
 3. Permanently protect or enhance mitigation land through coordination with California Department of Fish and Wildlife. If the project is located within the service area of a California Department of Fish and Wildlife-approved

burrowing owl conservation bank, the project operator may purchase available burrowing owl conservation bank credits.

- ~~b~~4. Develop and implement a mitigation land management plan in accordance with the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG 2012) guidelines to address long-term ecological sustainability and maintenance of the site for burrowing owls.
- ~~4~~5. Fund the maintenance, management, or enhancement of mitigation land.
- ~~2~~6. Habitat shall not be altered or destroyed, and burrowing owls shall not be excluded from burrows, until mitigation lands have been legally secured, are managed for the benefit of burrowing owls according to California Department of Fish and Wildlife-approved management, monitoring and reporting plans, and the endowment or other long-term funding mechanism is in place or security is provided until these measures are completed.
- ~~3~~7. Mitigation lands or California Department of Fish and Wildlife-approved habitat enhancement projects should be on, adjacent or proximate to the impact site where possible and where habitat is sufficient to support burrowing owls present.
- ~~4~~8. Consult with the California Department of Fish and Wildlife when determining off-site mitigation.

Section 4.4, Biological Resources, Page 4.4-53 & 4.4-55:

MM 4.4-18KC: Prior to the issuance of grading or building permit the following shall be implemented:

- a. Preconstruction surveys shall be conducted by a qualified biologist for the presence of desert kit fox and American badger dens prior to installation of desert tortoise exclusion fencing. Copies of the completed surveys shall be submitted to Kern County Planning and Natural Resources Department.
- b. The survey shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes fallow agricultural land and scrub habitats. Surveys shall not be conducted for all areas of suitable habitat at one time; they shall be phased so that surveys occur within two weeks prior to disturbance of that portion of the site. If no potential American badger or desert kit fox dens are present, no further mitigation is required.
- c. If potential dens are observed, the following measures are required to avoid potential adverse effects to American badger and desert kit fox:
 1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers or foxes from reuse during construction. Den excavation shall be prohibited during the pupping season to avoid possible pup mortality resulting from a lack of available refugia.

2. Passive relocation shall be prohibited during the pupping season, which is February 15 to June 1 for both species. If the qualified biologist determines that potential dens outside the breeding season may be active, the biologist shall notify the California Department of Fish and Wildlife. Entrances to the dens shall be blocked with soil, sticks, and debris for three to five days to discourage use of these dens prior to project disturbance. The den entrances shall be blocked to an incrementally greater degree over the three- to five-day period. After the qualified biologist determines that badgers and foxes have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction. The collapsing of active desert kit fox dens shall not occur without prior consultation with the California Department of Fish and Wildlife. A biologist shall remain on-call throughout construction in the event that badger or desert kit fox are present on the site.
3. Construction activities shall not occur within 50 feet of active badger dens. The project operator shall contact California Department of Fish and Wildlife immediately if natal badger dens are detected to determine suitable buffers and other measures to avoid take.
4. Construction activities shall not occur within 100 feet of active kit fox dens. The project operator shall contact California Department of Fish and Wildlife immediately if pupping kit fox dens are detected to determine suitable buffers and other measures to avoid take.

...

MM 4.4-18CC: Prior to the issuance of grading or building permit the following shall be implemented:

- a. Preconstruction surveys shall be conducted by a qualified biologist for the presence of desert kit fox and American badger dens prior to installation of desert tortoise exclusion fencing. Copies of the completed surveys shall be submitted to California City Community Development Department.
- b. The survey shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes fallow agricultural land and scrub habitats. Surveys shall not be conducted for all areas of suitable habitat at one time; they shall be phased so that surveys occur within two weeks prior to disturbance of that portion of the site. If no potential American badger or desert kit fox dens are present, no further mitigation is required.
- c. If potential dens are observed, the following measures are required to avoid potential adverse effects to American badger and desert kit fox:
 1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers or foxes from reuse during construction. Den excavation shall be prohibited during the pupping season to avoid possible pup mortality resulting from a lack of available refugia.

2. Passive relocation shall be prohibited during the pupping season, which is February 15 to June 1 for both species. If the qualified biologist determines that potential dens outside the breeding season may be active, the biologist shall notify the California Department of Fish and Wildlife. Entrances to the dens shall be blocked with soil, sticks, and debris for three to five days to discourage use of these dens prior to project disturbance. The den entrances shall be blocked to an incrementally greater degree over the three- to five-day period. After the qualified biologist determines that badgers and foxes have stopped using active dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction. The collapsing of active desert kit fox dens shall not occur without prior consultation with the California Department of Fish and Wildlife. A biologist shall remain on-call throughout construction in the event that badger or desert kit fox are present on the site.
3. Construction activities shall not occur within 50 feet of active badger dens. The project operator shall contact California Department of Fish and Wildlife immediately if natal badger dens are detected to determine suitable buffers and other measures to avoid take.
4. Construction activities shall not occur within 100 feet of active kit fox dens. The project operator shall contact California Department of Fish and Wildlife immediately if pupping kit fox dens are detected to determine suitable buffers and other measures to avoid take.

Section 4.4, Biological Resources, Page 4.4-42 – 4.4-43:

MM 4.4-1CC: Prior to the issuance of grading or building permits, the project operator shall retain a Lead Biologist who meets the qualifications of an Authorized Biologist as defined by ~~United States Fish and Wildlife Service~~ and California Department of Fish and Wildlife to oversee compliance with protection measures for all listed and other special-status species. The project Lead Biologist shall be on-site during all fencing and ground disturbance activities throughout the construction phase. The project Lead Biologist shall have the right to halt all activities that are in violation of the special-status species protection measures described herein. Work shall proceed only after hazards to special-status species are removed and the species is no longer at risk. The project Lead Biologist shall have in her/his possession a copy of all the compliance measures while work is being conducted on-site.

MM 4.4-2CC: Prior to the issuance of grading or building permits, and for the duration of construction activities, all new construction workers at the project site shall attend a Worker Environmental Awareness Program (WEAP), developed and presented by the project Lead Biologist. As part of the WEAP training, the project Lead Biologist shall perform the following training-related tasks:

- a. Provide the training materials for ~~WEAP~~ Worker Environmental Awareness Program training. These materials shall include the measures and mitigation requirements for protected plant and wildlife species (e.g., avoidance and buffer

requirements, nighttime construction limitations), and applicable fire protection measures. ~~WEAP~~ Worker Environmental Awareness Program training shall also include driver training to avoid and minimize collision risks with protected species, and reporting protocols in the event that any dead or injured wildlife are discovered.

- b. Send a copy of all ~~WEAP~~ Worker Environmental Awareness Program training materials to the California City Community Development Department.
- c. Maintain a list on-site of all employees who have undergone ~~WEAP~~ Worker Environmental Awareness Program training. A copy of this list shall be provided to the California City Community Development Department as necessary.

MM 4.4-3CC: The Worker Environmental Awareness Program (~~WEAP~~) shall be presented by the Lead Biologist and shall include information on the life history of each federal and state-listed species, as well as other special-status wildlife, natural communities, and plant species that may be encountered during construction activities, their legal protections, the definition of “take” under the federal and State Endangered Species Acts, measures the project operator is implementing to protect special-status species, reporting requirements, specific measures that each worker shall employ to avoid take of special-status wildlife species, and penalties for violation of the acts. Training shall be documented as follows:

- a. An acknowledgement form signed by each worker indicating that environmental training has been completed.
- b. A sticker that shall be placed on hard hats indicating that the worker has completed the environmental training. Construction workers shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker.
- c. A copy of the training transcript/training video and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgements forms shall be submitted to the California Community Development Department.

Section 4.4, Biological Resources, Pages 4.4-56 to 4.4-57:

MM 4.4-8CC: The project operator and/or contractor shall implement the following during project decommissioning:

- a. All applicable construction phase general protection measures shall be implemented during decommissioning.
- b. A ~~25~~15-mile-per-hour speed limit on paved or stabilized unpaved roads shall be applied for travel during decommissioning activities. Travel shall be confined to existing roads and previously disturbed areas.
- c. If any special-status wildlife is detected in the work area during decommissioning activities, no work shall be conducted until the individual moves on its own outside of the work area.

- d. Work outside areas with desert tortoise exclusion fencing shall only occur during daylight hours.

Section 4.4, Biological Resources, Pages 4.4-57 to 4.4-58:

MM 4.4-9CC: During construction and decommissioning the project operator and/or contractor shall implement the following general avoidance and protective measures:

- a. Prior to issuance of grading or building permits but after consulting with the United States Fish and Wildlife Service and California Department of Fish and Wildlife, the solar facility project site shall be fenced with a permanent desert tortoise exclusion fence to keep any desert tortoises and Mohave ground squirrels that may be using habitat adjacent to the facility from entering during construction, operations and maintenance, and dismantling and restoration (decommissioning) phases. The project proponent shall submit a fencing plan that outlines the location, type of fence, and construction methods to United States Fish and Wildlife Service and California Department of Fish and Wildlife for review. The fencing type shall follow current fence specifications established by the United States Fish and Wildlife Service. Desert tortoise-proof gates shall be established at all photovoltaic solar facility entry points, unless otherwise approved by United States Fish and Wildlife Service and California Department of Fish and Wildlife. Workers installing the exclusion fencing shall have undergone the worker training program mandated in Mitigation Measure MM 4.4-2KC and a biological monitor under the authority of the project Lead Biologist shall be present during exclusion fencing installation.
- b. The fencing shall be routinely inspected with inspections after precipitation events of more than one inch at each ephemeral drainage crossing. Any damage to the fencing shall be repaired immediately or no later than 2 days following the observation.
- c. Following the construction of exclusion fencing around the solar facility perimeters, clearance surveys shall be conducted by the Lead Biologist to ensure that no desert tortoises, Mohave ground squirrels, or other listed wildlife species are trapped within the fenced area. The Lead Biologist may be assisted by biological monitors under the supervision of the Lead Biologist. The clearance surveys shall be conducted no more than 30 days prior to ground disturbing activities associated with construction, O&M, or decommissioning. Clearance surveys shall adhere to the current United States Fish and Wildlife Service clearance survey protocols described in the Desert Tortoise Field Manual, including a minimum of two clearance passes to be completed after desert tortoise-proof fencing is installed, which shall coincide with heightened desert tortoise activity from late March through May and September through October or as outlined in the Project's Habitat Conservation Plan or Incidental Take Permit. The Designated Biologist(s) shall perform pre activity surveys for desert tortoise and shall remain on-site daily until the construction period ends or exclusion fencing has been installed to preclude desert tortoises from entering a given work area (work area is completely enclosed with exclusionary fence). United States Fish

and Wildlife Service and California Department of Fish and Wildlife may impose modified or additional fencing requirements in the project's final 2081 Permit and/or Habitat Conservation Plan, if required.

- d. If a desert tortoise or Mohave ground squirrel is found on the site during project construction, operation, or decommissioning, activity shall cease in the vicinity of the animal and the desert tortoise and/or Mohave ground squirrel shall be passively restricted to the area encompassing its observed position on the construction site and its point of entry shall be determined if possible. The Lead Biologist shall install a temporary tortoise-proof fence around this area. Concurrent with this effort, United States Fish and Wildlife Service and California Department of Fish and Wildlife shall be consulted regarding any additional avoidance, minimization, or mitigation measures that may be necessary. Once the desert tortoise and/or Mohave ground squirrel is observed leaving the site, work in the area can resume. A report shall be prepared by the Lead Biologist to document the activities of the desert tortoise and/or Mohave ground squirrel within the site; all fence construction, modification, and repair efforts; and movements of the desert tortoise and/or Mohave ground squirrel once again outside the permanent tortoise-proof fence. This report shall be submitted to wildlife and resource agency representatives and the California City Community Development Department. If passive relocation is not possible, desert tortoise and/or Mohave ground squirrel may also be translocated in accordance with a United States Fish and Wildlife Service and/or California Department of Fish and Wildlife approved Translocation Plan.
- e. Outside permanently fenced desert tortoise exclusion areas where desert tortoise may be present, the project operator shall limit the areas of disturbance in desert tortoise and Mohave ground squirrel habitat. Parking areas, new roads, pulling sites, and locations for staging, storage, excavation, and disposal shall be confined to the smallest areas possible. These areas shall be flagged, and disturbance activities, vehicles, and equipment shall be confined to these flagged areas.
- f. The Lead Biologist or biological monitor shall monitor any ground-disturbance activities that occur outside the desert tortoise exclusion fencing. Work outside areas with desert tortoise exclusion fencing shall only occur during daylight hours where desert tortoise are determined to be present.

Section 4.4, Biological Resources, Pages 4.4-36 to 4.4-37:

MM 4.4-15KC: The measures listed below shall be implemented prior to and during construction, operations, and decommissioning at the project site.

- a. The project operator has filed for an Incidental Take Permit for Mohave ground squirrel and desert tortoise with California Department of Fish and Wildlife, and a Habitat Conservation Plan with the United States Fish and Wildlife Service for desert tortoise. The project proponent shall mitigate for permanent impacts to suitable ~~DT-desert tortoise~~ and ~~MGS Mohave ground squirrel~~ habitat, through an approved mitigation bank, in-lieu fee program, or other mechanism accepted by

California Department of Fish and Wildlife and/or United States Fish and Wildlife Service, as outlined in each ~~agencies~~ agency's respective permit. Compensatory mitigation acreage for permanent impacts to western burrowing owl nesting, occupied, and satellite burrows and/or western burrowing owl habitat shall be determined and acquired in consultation with the wildlife or resource agency and may be mitigated alongside impact on covered species. Compensatory mitigation would provide habitat for desert tortoise, Mohave ground squirrel, and/or burrowing owl, as well as rare plants, State Waters (only if impacted by the project), and features covered under the Project's Lake and Streambed Alteration Agreement. The Final Interim Take Permit and approved Habitat Conservation Plan shall be submitted to Kern County prior to the onset of activities that have the potential to impact covered species. ...

MM 4.4-16KC: The following measures shall be implemented during project construction and decommissioning activities with respect to burrowing owls.

- a. A project Lead Biologist shall be on-site during all construction activities in potential burrowing owl habitat. A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience) shall conduct pre-construction surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows not more than 14 days prior to construction and/or prior to desert tortoise exclusion fencing installation. The survey methodology shall be consistent with the methods outlined in the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG 2012), and shall consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls (and may be combined with other pre-construction surveys). As burrows are searched, biologists shall also look for signs of American badger and desert kit fox. Copies of the survey results shall be submitted to California Department of Fish and Wildlife and the Kern County Planning and Natural Resources Department.
- b. If no burrowing owls are detected, no further mitigation is necessary. If burrowing owls are detected, no ground-disturbing activities, such as road construction or installation of solar arrays or ancillary facilities, shall be permitted within the distances specified in Table 2 of the Staff Report from an active burrow during the nesting and fledging seasons (April 1 to August 15 and August 16 to October 15, respectively), unless otherwise authorized by California Department of Fish and Wildlife. The specified buffer distance ranges from 656 feet to 1,640 feet, according to the time of year and the level of disturbance. Buffers shall be established in accordance with the table provided in Mitigation Measure **MM 4.4-17KC(c)**, below, and occupied burrows shall not be disturbed during the nesting season unless a qualified biologist approved by California Department of Fish and Wildlife, verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Burrowing owls shall not be moved or excluded from burrows during the breeding season (April 1

to October 15) or as outlined in the Project's Habitat Conservation Plan or Incidental Take Permit.

- c. During the nonbreeding (winter) season (October 16 to March 31), consistent with the table below (*Western Burrowing Owl Burrow Buffers*), all ground-disturbing work shall maintain a distance ranging from 164 feet to 1,640 feet from any active burrows depending on the level of disturbance. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be displaced from winter burrows according to recommendations made in the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG 2012).

Section 4.4, Biological Resources, Pages 4.4-64 to 4.4-66:

MM 4.4-16CC: The following measures shall be implemented during project construction and decommissioning activities with respect to burrowing owls.

- a. A project Lead Biologist shall be on-site during all construction activities in potential burrowing owl habitat. A qualified wildlife biologist (i.e., a wildlife biologist with previous burrowing owl survey experience) shall conduct pre-construction surveys of the permanent and temporary impact areas to locate active breeding or wintering burrowing owl burrows not more than 14 days prior to construction and/or prior to desert tortoise exclusion fencing installation. The survey methodology shall be consistent with the methods outlined in the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG 2012), and shall consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls (and may be combined with other pre-construction surveys). As burrows are searched, biologists shall also look for signs of American badger and desert kit fox. Copies of the survey results shall be submitted to California Department of Fish and Wildlife and the California City Community Development Department.
- b. If no burrowing owls are detected, no further mitigation is necessary. If burrowing owls are detected, no ground-disturbing activities, such as road construction or installation of solar arrays or ancillary facilities, shall be permitted within the distances specified in Table 2 of the Staff Report from an active burrow during the nesting and fledging seasons (April 1 to August 15 and August 16 to October 15, respectively), unless otherwise authorized by California Department of Fish and Wildlife. The specified buffer distance ranges from 656 feet to 1,640 feet, according to the time of year and the level of disturbance. Buffers shall be established in accordance with the table provided in Mitigation Measure MM 4.4-17e16CC(c), below, and occupied burrows shall not be disturbed during the nesting season unless a qualified biologist approved by California Department of Fish and Wildlife, verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Burrowing owls shall not be moved or excluded from burrows

during the breeding season (April 1 to October 15) or as specified by the Incidental Take Permit issued by CDFW.

- c. During the nonbreeding (winter) season (October 16 to March 31), consistent with the table below (*Western Burrowing Owl Burrow Buffers*), all ground-disturbing work shall maintain a distance ranging from 164 feet to 1,640 feet from any active burrows depending on the level of disturbance. If active winter burrows are found that would be directly affected by ground-disturbing activities, owls can be displaced from winter burrows according to recommendations made in the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG-2012).

Western Burrowing Owl Burrow Buffers

Location	Time of Year	Level of Disturbance (in feet)		
		Low	Medium	High
Nesting Sites	April 1 - Aug 15	656	1,640	1,640
Nesting Sites	Aug 16 - Oct 15	656	656	1,640
Any occupied burrow	Oct 16 - Mar 31	164	328	1,640
Source: CDFG 2012				

- d. Burrowing owls should not be excluded from burrows unless or until a Burrowing Owl Exclusion Plan is developed by the Lead Biologist and approved by the applicable local California Department of Fish and Wildlife office and submitted to the California City Community Development Department. The plan shall include, at a minimum:
1. Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding burrow scoping;
 2. Type of scope to be used and appropriate timing of scoping to avoid impacts;
 3. Occupancy factors to look for and what shall guide determination of vacancy and excavation timing (one-way doors should be left in place 48 hours to ensure burrowing owls have left the burrow before excavation, visited twice daily and monitored for evidence that owls are inside and can't escape i.e., look for sign immediately inside the door).
 4. How the burrow(s) shall be excavated. Excavation using hand tools with refilling to prevent reoccupation is preferable whenever possible (may include using piping to stabilize the burrow to prevent collapsing until the entire burrow has been excavated and it can be determined that no owls reside inside the burrow);

5. Removal of other potential owl burrow surrogates or refugia on-site;
6. Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;
- ~~e~~7. Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take;
- ~~f~~8. How the impacted site shall continually be made inhospitable to burrowing owls and fossorial mammals (e.g., by allowing vegetation to grow tall, heavy disking, or immediate and continuous grading) until development is complete.
- ~~g~~9. Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows to ensure take is avoided. Conduct daily monitoring for one week to confirm young of the year have fledged if the exclusion shall occur immediately after the end of the breeding season.
- ~~h~~10. Excluded burrowing owls are documented using artificial or natural burrows on an adjoining mitigation site (if able to confirm by band re-sight).
- ~~i~~e. In accordance with the Burrowing Owl Exclusion Plan, a qualified wildlife biologist shall excavate burrows using hand tools. Sections of flexible plastic pipe or heavy material shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. One-way doors shall be installed at the entrance to the active burrow and other potentially active burrows within 160 feet of the active burrow. Forty-eight hours after the installation of the one-way doors, the doors can be removed, and ground-disturbing activities can proceed. Alternatively, burrows can be filled to prevent reoccupation.
- ~~j~~f. During construction and decommissioning activities, monthly and final compliance reports shall be provided to California Department of Fish and Wildlife, California City Community Development Department, and other applicable resource agencies documenting the effectiveness of mitigation measures and the level of burrowing owl take associated with the proposed project.

Section 4.4, Biological Resources, Pages 4.4-31 to 4.4-32:

MM 4.4-17CC: The following measures shall be implemented during project construction and decommissioning activities with respect to burrowing owls:

- a. Should burrowing owls be found on-site, compensatory mitigation for lost breeding and/or wintering habitat shall be implemented off-site in accordance with the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game CDFG 2012) and in consultation with California Department of Fish and Wildlife. At a minimum, the following recommendations shall be implemented:
 1. Temporarily disturbed habitat shall be restored, if feasible, to pre-project conditions, including de-compacting soil and revegetating.
 2. Permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat shall be mitigated such that the habitat acreage, number

of burrows ~~and~~ or burrowing owl impacted are replaced based on a site-specific analysis and shall include:

Permanent conservation or enhancement of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals.

3. Permanently protect or enhance mitigation land through coordination with California Department of Fish and Wildlife. If the project is located within the service area of a California Department of Fish and Wildlife-approved burrowing owl conservation bank, the project operator may purchase available burrowing owl conservation bank credits.
- ~~b4.~~ 4. Develop and implement a mitigation land management plan in accordance with the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game ~~CDFG~~ 2012) guidelines to address long-term ecological sustainability and maintenance of the site for burrowing owls.
- ~~15.~~ 5. Fund the maintenance, management, or enhancement of mitigation land.
- ~~26.~~ 6. Habitat shall not be altered or destroyed, and burrowing owls shall not be excluded from burrows, until mitigation lands have been legally secured, are managed for the benefit of burrowing owls according to California Department of Fish and Wildlife-approved management, monitoring and reporting plans, and the endowment or other long-term funding mechanism is in place or security is provided until these measures are completed.
- ~~37.~~ 7. Mitigation lands or California Department of Fish and Wildlife-approved habitat enhancement projects should be on, adjacent or proximate to the impact site where possible and where habitat is sufficient to support burrowing owls present.
- ~~48.~~ 8. Consult with the California Department of Fish and Wildlife when determining off-site mitigation.

Section 4.4, Biological Resources, Page 4.4-58 & 4.4-59

MM 4.4-22KC: Prior to issuance of any grading or building permit, the project proponent/operator shall submit a report detailing how all identified ephemeral drainages are avoided to the extent practicable and shall be continually complied with during the life of the project. A copy of this report shall also be provided to the Lahontan Regional Water Quality Control Board and the Kern County Planning and Natural Resources Department. The report shall include information as shown below as a plan as necessary and shall outline compliance to the following:

...

MM 4.4-22CC: Prior to issuance of any grading or building permit, the project proponent/operator shall submit a report detailing how all identified ephemeral drainages are avoided to the extent practicable and shall be continually complied with during the life of the project. A copy of this report shall also be provided to the Lahontan Regional Water Quality Control Board and the California City Community Development Department. The report shall include information as shown below as a plan as necessary and shall outline compliance to the following:

Section 4.5, Cultural Resources, Page 4.5-43:

Gen-Tie

With implementation of Mitigation Measures **MM 4.5-1KC**, **MM 4.5-2KC**, and **MM 4.5-11KC**, impacts would be less than significant.

Section 4.7, Geology and Soils, Page 4.7-36:

MM 4.7-3KC: The project proponent shall retain a qualified paleontologist, defined as a paleontologist meeting the Society for Vertebrate Paleontology's Professional Standards to carry out all mitigation measures related to paleontological resources.

- ~~1~~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.
- ~~2~~b. The Paleontological Resources Awareness Training may be conducted in conjunction with other awareness training requirements.
- ~~3~~—~~1~~. 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 artifact collecting or intentional disturbance of paleontological resources.
- ~~4~~—~~2~~. The Paleontological Resources Awareness Training Guides shall be kept on-site and available for all personnel to review and be familiar with as necessary.

Section 4.7, Geology and Soils, Page 4.7-37:

MM 4.7-4KC: A qualified paleontologist or designated monitor shall be on-site initially to spot-check excavations below a depth of 1 foot below the ground surface in a given area. If it is determined that sediments consist of older alluvium, then full-time paleontological monitoring shall ensue. If sediments are determined to consist of Holocene Quaternary

alluvium, paleontological monitoring shall be suspended until an excavation depth of 5 feet below the ground surface is reached in the area.

- 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.
1. During the course of monitoring, if the paleontologist can demonstrate based on observations of subsurface conditions that the level of monitoring should 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.
- 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.
- c. Following the completion of construction, 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, recovery and curation efforts, and 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.

Section 4.10, Hydrology and Water Quality, Page 4.10-21 to 4.10-22

MM 4.10-1KC: Prior to issuance of a grading permit, and prior to engagement of decommissioning activities, the project proponent/operator shall submit a Stormwater Pollution Prevention Plan (~~SWPPP~~) for review and approval by the Regional Water Quality Control Board—Lahontan Region. The ~~SWPPP~~ Stormwater Pollution Prevention Plan shall be designed to minimize runoff and shall specify best management practices to prevent all construction pollutants from contacting stormwater, with the intent of keeping sediment or any other pollutants from moving off-site and into receiving waters. The requirements of the ~~SWPPP~~ Stormwater Pollution Prevention Plan shall be incorporated into design specifications and construction contracts. Recommended best management practices to be incorporated in the ~~SWPPP~~ Stormwater Pollution Prevention Plan may include the following:

...

MM 4.10-2KC: Prior to the issuance of a grading permit, the project proponent/operator shall submit a final hydrologic study and drainage plan for review and approval by the Kern County Public Works Department. The final hydrologic study and drainage plan shall be designed to evaluate and minimize potential increases in runoff from the project site. The final hydrologic study and drainage plan shall include, but not be limited to the following:

...

- e. The hydrologic study and drainage plan shall be prepared in accordance with the Kern County Grading Code, Kern County Development Standards, Kern County Hydrology Manual and Kern County Floodplain Ordinance, ~~California City Grading Code~~, and approved by the Kern County Public Works Department prior to the issuance of grading permits.

MM 4.10-1CC: Prior to issuance of a grading permit, and prior to engagement of decommissioning activities, the project proponent/operator shall submit a Stormwater Pollution Prevention Plan (~~SWPPP~~) for review and approval by the Regional Water Quality Control Board—Lahontan Region. The ~~SWPPP~~ Stormwater Pollution Prevention Plan shall be designed to minimize runoff and shall specify best management practices to prevent all construction pollutants from contacting stormwater, with the intent of keeping sediment or any other pollutants from moving off-site and into receiving waters. The requirements of the ~~SWPPP~~ Stormwater Pollution Prevention Plan shall be incorporated into design specifications and construction contracts. Recommended best management practices to be incorporated in the ~~SWPPP~~ Stormwater Pollution Prevention Plan may include the following:

Section 4.10, Hydrology and Water Quality, Page 4.10-36:

Mitigation Measures

Kern County

Implement Mitigation Measures **MM 4.9-1KC** (see **Section 4.9, Hazards and Hazardous Materials**, for full Mitigation Measure text), **MM 4.10-1KC**, and **MM 4.10-2KC**.

Section 4.10, Hydrology and Water Quality, Page 4.10-40:

Mitigation Measures

Kern County

Implement Mitigation Measures **MM 4.9-1KC** (see **Section 4.9, Hazards and Hazardous Materials**, for full Mitigation Measure text) and **MM 4.10-1KC** through **MM 4.10-3KC**.

City of California City

Implement Mitigation Measures **MM 4.9-1CC** and **MM 4.10-1CC** through **MM 4.10-3CC**.

Gen-Tie

Implement Mitigation Measures **MM 4.9-1KC** (see **Section 4.9, Hazards and Hazardous Materials**, for full Mitigation Measure text), **MM 4.10-1KC**, and **MM 4.10-2KC**.

Section 4.11, Land Use, Page 4.11-39:**Mitigation Measures****Kern County**

Implementation of Mitigation Measure ~~MM 4.9-6KC~~ would be required (see **Section 4.9, Hazards and Hazardous Materials**, for full mitigation text).

City of California City

Implementation of Mitigation Measure ~~MM 4.9-6CC~~ would be required (see **Section 4.9, Hazards and Hazardous Materials**, for full mitigation text).

Gen-Tie

Implementation of Mitigation Measure ~~MM 4.9-6KC~~ would be required (see **Section 4.9, Hazards and Hazardous Materials**, for full mitigation text).

Level of Significance after Mitigation**Kern County**

With implementation of Mitigation Measure **MM 4.9-6KC**, impacts would be less than significant.

City of California City

With implementation of Mitigation Measure ~~MM 4.9-6CC~~**5CC**, impacts would be less than significant.

Gen-Tie

With implementation of Mitigation Measure **MM 4.9-6KC**, impacts would be less than significant.

Section 4.12, Noise, Impact 4.12-4, Pages 4.12-50 to 4.12-52:

The project would be consistent with the County's ALUCP and required to comply with applicable FAA regulations. Kern County's ALUCP consistency review process would identify and minimize any potential conflict with airport operations, while the FAA's review would ensure that project infrastructure does not present an aeronautical hazard. As discussed in Section 4.9, *Hazards and Hazardous Materials*, implementation of Mitigation Measure ~~MM 4.9-4KC~~**6KC** and ~~MM 4.9-4CC~~**5CC** would ensure the proposed project would be consistent with the ALUCP and General Plan policies of Kern County and California City by requiring the developer to coordinate with the Department of Defense, FAA, and the public airports and military installations in the area. With implementation of Mitigation Measure ~~MM 4.9-4KC~~**6KC** and ~~MM 4.9-4CC~~**5CC**, impacts would be less than significant. For a more detailed discussion of consistency with the ALUCP, see Section 4.9, *Hazards and Hazardous Materials*, Impact 4.9-5.

Gen-Tie

The proposed gen-tie route is also located within an area covered by the Kern County ALUCP. The proposed gen-tie route is located in the following compatibility zones of the Mojave Air and Space Port:

- Zone B2 – Extended Approach/Departure Zone
- Zone C – Common Traffic Pattern

- Zone D – Other Airport Environs
- Zone E1 – Special Land Use
- Zone E2 – Special Land Use

According to Kern County ALUCP Table 2A, *Compatibility Criteria*, Compatibility Zone B2 is subject to significant noise levels, Compatibility Zone C is subject to frequent noise intrusion, Zone D is subject to potential for annoyance from overflights, and Zone E is subject to compatibility issues.

The proposed gen-tie would be consistent with the County's ALUCP and required to comply with applicable FAA regulations. Kern County's ALUCP consistency review process would identify and minimize any potential conflict with airport operations, while the FAA's review would ensure that project infrastructure does not present an aeronautical hazard. Implementation of **MM 4.9-4~~KE~~6~~K~~C** would ensure the proposed project would be consistent with the ALUCP and General Plan policies of Kern County by requiring the developer to coordinate with the Department of Defense, FAA, and the public airports and military installations in the area. With implementation of this mitigation measure, impacts would be less than significant. For a more detailed discussion of consistency with the ALUCP, see Section 4.9, *Hazards and Hazardous Materials*, Impact 4.9-5.

Mitigation Measures

Kern County:

Implement Mitigation Measure **MM 4.9-4~~KE~~6~~K~~C** (see Section 4.9, *Hazards and Hazardous Materials*, for full text).

City of California City:

Implement Mitigation Measure **MM 4.9-4~~CE~~5~~CC~~** (see Section 4.9, *Hazards and Hazardous Materials*, for full text).

Gen-Tie Line:

Implement Mitigation Measure **MM 4.9-4~~KE~~6~~K~~C** (see Section 4.9, *Hazards and Hazardous Materials*, for full text).

Level of Significance after Mitigation

Kern County:

With the incorporation of Mitigation Measure **MM 4.9-4~~KE~~6~~K~~C**, impacts would be less than significant.

City of California City:

With the incorporation of Mitigation Measure **MM 4.9-4~~CE~~5~~CC~~**, impacts would be less than significant.

Gen-Tie:

With the incorporation of Mitigation Measure **MM 4.9-4~~KE~~6~~K~~C**, impacts would be less than significant.

Section 4.12, Noise, Cumulative Impacts, Pages 4.12-52 to 4.12-54:

The solar facility site is located within Compatibility Zone B2 and Zone C of the Mojave Air and Space Port. Implementation of Mitigation Measure **MM 4.9-4~~KE~~6~~K~~C** and **MM 4.9-4~~CE~~5~~CC~~** would ensure the

proposed project would be consistent with the ALUCP and General Plan policies of Kern County by requiring the developer to coordinate with the Department of Defense, FAA, and the public airports and military installations in the area. Thus, the project would not combine with any other to become cumulatively significant and there would be less than significant cumulative impacts associated with airports.

Gen-Tie

As shown in Error! Reference source not found.9, *Noise Levels at Various Distances from Gen-Tie Construction*, simultaneous heavy equipment use during gen-tie construction would generate a noise level of up to 90 dBA L_{eq} when within 25 feet of single-family residences/mobile homes in Kern County. As noted earlier, none of the other projects identified in **Table 3.3, Cumulative Project List** are within a mile of the project site. Because sensitive receptors in the community of Mojave are closer than 1,000 feet away from gen-tie construction, County approval and implementation of a noise control plan would be required unless nighttime construction noise is determined to be inaudible to a person with average hearing ability at a distance greater than 150 feet. In addition, daytime construction noise levels in excess of 70 dBA L_{eq} could disturb nearby residents. Therefore, gen-tie construction noise would have a potentially significant temporary impact. Implementation of Mitigation Measures **MM 4.12-1KC** through **4.12-3KC** would reduce impacts to a less than significant level. During operation, the gen-tie would not generate noise beyond the existing baseline environment. With the implementation of Mitigation Measures **MM 4.12-1KC** through **MM 4.12-3KC**, no significant cumulative noise impact due to gen-tie construction is anticipated to occur.

Cumulative Operational Noise

The proposed project is estimated to generate 88 daily trips. As seen in **Table 4.12-14, Operational Traffic Noise**, project operations would not exceed the FTA criteria (**Table 4.12-5**) for mobile noise levels even with the assumption that all 88 daily trips would occur along each individual roadway. Individual projects listed in **Table 3-3, Cumulative Project List**, are all more than one mile from the project site and they would be required to analyze potential operational noise and mitigate any significant impacts. Furthermore, as discussed above, the long-term noise impacts associated with operation and maintenance of the project would not result in a substantial temporary or permanent increase in 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. Therefore, operational noise from the proposed project would not combine with such noise from other pending projects, and cumulative operational impacts would be less than significant.

Mitigation Measures

Kern County:

Implement Mitigation Measures **MM 4.9-4KC6KC** and **MM 4.12-1KC** through **MM 4.12-3KC**.

City of California City:

Implement Mitigation Measures **MM 4.9-4CC5CC** and **MM 4.12-1CC** through **MM 4.12-3CC**.

Gen-Tie:

Implement Mitigation Measures **MM 4.9-4KC6KC** and **MM 4.12-1KC** through **MM 4.12-3KC**.

Level of Significance after Mitigation

Kern County:

With the implementation of Mitigation Measures ~~MM 4.9-4KC~~6KC and MM 4.12-1KC through MM 4.12-3KC, cumulative impacts would be less than significant.

City of California City:

With the implementation of Mitigation Measures ~~MM 4.9-4CC~~5CC and MM 4.12-1CC through MM 4.12-3CC, cumulative impacts would be less than significant.

Gen-Tie:

With implementation of Mitigation Measures ~~MM 4.9-4KC~~6KC and MM 4.12-1KC through MM 4.12-3KC, cumulative impacts would be less than significant.

Section 4.16, Utilities and Service Systems, Page 4.16-36:

Mitigation Measures

Kern County

Implement Mitigation Measures MM 4.10-1KC, MM 4.10-2KC (See Section 4.10, Hydrology and Water Quality, for full Mitigation Measure text), and MM 4.16-1KC.

Chapter 6, Alternatives, Page 6-4:

Biological Resources

The project site and the surrounding area provides suitable habitat for several rare, special-status, or otherwise protected plant and wildlife species (broadly referred as special-status species). Several of these species were identified within or in close proximity to the project site during biological surveys (refer to **Section 4.4, Biological Resources** for details). The project has the potential to result in significant impacts on special-status species (i.e., various special-status plants including western Joshua tree; pacific Townsend's big-eared bat, Mohave ground squirrel, desert kit fox, American badger, and Agassiz's desert tortoise; raptors and migratory birds; and, crotch bumble bee, western bumble bee, and Mojave dotted-blue butterfly), including from causing direct or indirect effects during construction, operation, and decommissioning; causing the fragmentation or loss of habitat; and, interfering with movement and migratory behavior. The project could also result in potentially significant impacts on sensitive habitats or other natural communities, including spinescale scrub, winter-fat scrubland, and Joshua tree woodland, as well as potentially jurisdictional water features. Further, the project could conflict with local and regional policies for protecting western Joshua tree and other native desert plants, including those identified in the Kern County General Plan, California City General Plan, Mojave Specific Plan, and Desert Renewable Energy Conservation Plan. The following mitigation measures would be implemented to avoid or reduce all project-level impacts on biological resources to less than significant levels:

- MM 4.1-5KC and MM 4.1-5CC
- MM 4.4-1KC, MM 4.4-7KC, MM 4.4-1CC and MM 4.4-7CC
- MM 4.4-2KC, MM 4.4-3KC, MM 4.4-2CC, and MM 4.4-3CC

- MM 4.4-4KC and MM 4.4-4CC
- MM 4.4-5KC and MM 4.4-5CC
- MM 4.4-6KC and MM 4.4-6CC
- MM 4.4-8KC and MM 4.4-8CC
- MM 4.4-9KC, MM 4.4-15KC, MM 4.4-9CC, and MM 4.4-15CC
- MM 4.4-10KC and MM 4.4-10CC
- MM 4.4-11KC and MM 4.4-11CC
- MM 4.4-12KC and MM 4.4-12CC
- MM 4.4-13KC and MM 4.4-13CC
- MM 4.4-14KC and MM 4.4-14CC
- MM 4.4-16KC and MM 4.4-16CC
- MM 4.4-17KC and MM 4.4-17CC
- MM 4.4-18KC and MM 4.4-18CC
- MM 4.4-19KC and MM 4.4-19CC
- MM 4.4-20KC and MM 4.4-20CC
- MM 4.4-21KC and MM4.4-21CC
- MM 4.4-22KC, MM 4.4-23KC, MM 4.4-22CC and MM 4.4-23CC

Chapter 10, Bibliography, Page 10-8:

NREL (National Renewable Energy Laboratory). ~~2015~~2019. *A Review of Avian Monitoring and Mitigation Information at Existing Utility-Scale Solar Facilities*.
<https://www.energy.gov/sites/prod/files/2019/03/f61/NREL%202015.pdf>

7.3 Responses 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.

Federal Agencies

- Letter 1: U.S. Army Corps of Engineers, William Ness, Senior Project Manager, California South Section (July 21, 2021)

State Agencies

- Letter 2: California Department of Transportation, District 9, Gayle J. Rosander, External Project Liaison (July 29, 2021)
- Letter 3: California Department of Fish and Wildlife, Julie A. Vance, Regional Manager (August 16, 2021)

Local Agencies

- Letter 4: Kern County Public Works Department (KCPWD), Floodplain Management Section, Kevin Hamilton by Brian Blase (July 12, 2021)
- Letter 5: Kern County Fire Department, Michael Nicholas, Assistant Fire Marshal (July 26, 2021)

Interested Parties and Organizations

- Letter 6: SoCalGas, A Semptra Energy Utility, SoCalGas Transmission Technical Services (July 12, 2021)
- Letter 7: San Manuel Band of Mission Indians, Jamie Nord, Cultural Resources Technician (July 13, 2021)
- Letter 8: Hernandez, Mary-Anne (August 9, 2021)
- Letter 9: Hernandez, Mary-Anne (August 9, 2021)
- Letter 10: Desert Tortoise Council, Edward L. LaRue, Jr., M.S., Ecosystems Advisory Committee, Chairperson (August 16, 2021)
- Letter 11: Kern Audubon Society, Franklin Bedard, Conservation Chair, and Garry George, Director, Clean Energy Initiative (August 16, 2021)
- Letter 12: Sahu, Ranajit (Ron), PhD (August 16, 2021)

Letters Received After August 16, 2021 Close of Public Comment Period

- Letter 13: Eastern Kern Air Pollution Control District, Glen E. Stephens, P.E., Air Pollution Control Officer (August 16, 2021)
- Letter 14: California Native Plant Society, Isabella Langone, Conservation Analyst (August 31, 2021)
- Letter 15: East Kern Air Pollution Control District, Glen E. Stephens, P.E., Air Pollution Control Officer (September 2, 2021)

Federal Agencies

Comment Letter 1: U.S. Army Corps of Engineers, William Ness, Senior Project Manager, California South Section (July 21, 2021)



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

July 21, 2021

Regulatory Division (SPK-2021-00502)

Kern County Planning and Natural Resources Department
Attn: Ms. Ronelle Candia
2700 M Street
Bakersfield, California 93301
candiar@kerncounty.com

Dear Ms. Candia:

We are responding to your July 8, 2021, request for comments on the Bellefield Solar Project. The U.S Army Corps of Engineers project identification number is SPK-2021-00502. The approximately 8,371-acre project site is located east of the community of Mojave and the Mojave Air and Space Port Airport, straddling State Route 58, Latitude 35.04057°, Longitude -118.1111°, Kern County, California.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

1-A

To ascertain the extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Aquatic Resources Delineation Reports" and "Updated Map and Drawing Standards for the South Pacific Division Regulatory Program" under "Jurisdiction" on our website at the address below and submit it to this office for verification. A list of consultants that prepare wetland delineations and permit application documents is also available on our website at the same location.

1-B

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

1-C

**Comment Letter 1: U.S. Army Corps of Engineers, William Ness, Senior Project Manager,
California South Section (July 21, 2021)**

-2-

If waters of the United States are going to be impacted, cultural resource sites within the defined federal permit area, will need to be evaluated according to the standards of the National Environmental Policy Act. All eligible or potentially eligible cultural resource sites in the permit area will be subject to Section 106 of the National Historic Preservation Act, 1966, as amended. The Corps of Engineers must also comply with the terms and conditions of the Federal Endangered Species Act with regards to our permitting process. Therefore, the project site will need to be evaluated for potential impacts this project may cause to listed species.

1-D

Please refer to identification number SPK-2021-00502 in any correspondence concerning this project. If you have any questions, please contact me by email at William.W.Ness@usace.army.mil, or telephone at (916) 557-5268. For more information regarding our program, please visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

1-E

Sincerely,



William Ness
Senior Project Manager
California South Section

Response to Letter 1: U.S. Army Corps of Engineers, William Ness, Senior Project Manager, California South Section (July 21, 2021)

- 1-A:** The commenter introduces the project and identifies the U.S. Army Corps of Engineers authority under the Section 10 of the Clean Water Act for the discharge of dredged or fill to the waters of the United States (WOUS). This comment is noted for the record, and revisions to the Draft EIR are not necessary.
- 1-B:** The commenter recommends preparation of a wetland delineation. The project proponent prepared an Aquatic Resources Assessment, dated October 2019 and revised July 2020, which is included as Appendix D of the Draft EIR. As stated in the project Aquatic Resources Assessment, all drainages in the project area and gen-ties are ephemeral, non-navigable features that convey hydrologic flows only during, and for short durations, after high precipitation events. The drainages do not support interstate or foreign commerce or cross state lines. Based on the USACE jurisdictional determinations that Koehn Dry Lake and Rogers Dry Lake are intrastate, isolated waters, the drainages delineated in the project area and gen-ties that may reach these dry lakes are not jurisdictional WOUS. This comment is noted for the record, and revisions to the Draft EIR are not necessary.
- 1-C:** The commenter requests that project alternatives include those that avoid impacts to wetlands or other WOUS. The project site and gen-tie lines do not contain wetlands or other WOUS, and would have no impacts these resources, as discussed in the Section 4.4.2, *Environmental Setting*, of the project Draft EIR. As a result, avoidance of wetlands and other WOUS is not a required attribute of the identified alternatives, as discussed in Section 6 of the Draft EIR.
- 1-D:** The commenter states that if cultural resources sites or listed species are identified within WOUS, the resources or species would need to be evaluated according to the standards of the National Environmental Policy Act or Federal Endangered Species Act, respectively. As the project site and gen-tie line routes do not impact any WOUS, the project does not presently require a federal permit. This comment is noted for the record, and revisions to the Draft EIR are not necessary.
- 1-E:** The commenter provides the project identification number, contact information, and information resources in the event that further correspondence is needed regarding this project. The comment and information provided are noted for the record, and revisions to the Draft EIR are not necessary.

State Agencies

Comment Letter 2: California Department of Transportation, District 9, Gayle J. Rosander, External Project Liaison (July 29, 2021)

CALIFORNIA STATE TRANSPORTATION AGENCY

GAVIN NEWSOM, GOVERNOR

California Department of Transportation

DISTRICT 9
500 SOUTH MAIN STREET | BISHOP, CA 93514
(760) 874-8330 | FAX (760) 872-0678 TTY 711
www.dot.ca.gov



July 29, 2021

Ms. Ronelle Candia
Kern County Planning/Natural Resources Dept.
2700 M Street, Suite 100
Bakersfield, California 93301

File: Ker-58-var
DEIR
SCH#: 2021010168

Bellefield Solar - Draft Environmental Impact Report (DEIR)

Dear Ms. Candia:

Thank you for giving the California Department of Transportation (Caltrans) District 9 the opportunity to comment during the NOP phase for the Bellefield Solar project. The project would access State Route (SR) 58 in eastern Kern County and California City, and include gentle crossings of SR 14 and 58. I appreciate our phone and email interaction. We offer the following:

- In our Notice of Preparation letter (January 28, 2021) we requested a map/aerial figure that identified the state highway accesses, and that they be analyzed in the DEIR's construction traffic analysis for geometrics, queuing, etc. Figure 1 - Bellefield Site Access, is included as the last page of Appendix L - Transportation Analysis. The DEIR section 1.5.4 - **Project Characteristics/Site Access** (page 1-17) does not coincide with Figure 1. It lists a 50th (which perhaps meant to be 30th), 140th (AKA Rosamond, which seems to be outside the project area) and Sunset Avenue (which we find to be a road east of Mojave and SR 14). The Hyundai-Kia Blvd listed would be the 55th on Figure 1. Please reconcile Figure 1 and the DEIR narrative for the proposed state highway access points.
- The Traffic Analysis addressed Level of Service of highway segments – not operational adequacy of the access intersections as requested. Some SR 58 access are grade separated interchanges (Altus and 140th/Rosamond Blvd). Three others are at-grade, and two of them (55th, 70th) have some auxiliary lanes. Of the most concern is the proposal for the 30th street access, which has no paved center median. See Attachment – Aerial Bellefield SR 58 Accesses, with views of these three locations. Please update the Transportation Analysis to assess the Altus, 30th, 55th, 70th and any other State highway access locations for operational integrity including geometrics, median storage, and queuing. Merited intersection improvements shall be built to Caltrans standards.

Should improvements be merited at these access points, it is imperative that their footprints are included in the DEIR studies for biological, cultural resources, etc.

Where feasible, the project proponent should strive for construction access at existing grade separated SR 58 locations and utilize frontage road areas.

"Provide a safe and reliable transportation network that serves all people and respects the environment"

2-A

2-B

2-C

Comment Letter 2: California Department of Transportation, District 9, Gayle J. Rosander, External Project Liaison (July 29, 2021)

Ms. Ronelle Candia
July 29, 2021
Page 2

- Figure 1 – Bellefield Solar Project Locations (DEIR page 5), notes several gen-tie crossings of SR 58 and SR14. As a reminder, installation will be done per Caltrans standards with an encroachment permit. Details regarding state highway gen-tie crossings may be found in Section 600 Utility Permits of the **Encroachment Permit Manual** at: <https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/encroachment-permits/chapter-6-ada.pdf>. 2-D
- The Project's Construction Traffic Control Plan will need to cover work during any intersection improvements, gen-tie crossings, Oak Creek Road detours, etc. as well as for the solar power facility itself. As already stated in the DEIR, Caltrans District 9 will be a reviewer. 2-E
- For permitting, design standards and traffic control information, you may contact Stephen Winzenread, District 9 Permits Engineer, at (760) 874-8348. The permit application may be found at: <https://dot.ca.gov/programs/traffic-operations/ep/applications>. 2-F

We value our cooperative working relationship with Kern County regarding development impacts to the state transportation system. For any questions, feel free to contact me at (760) 874-8330 or at gayle.rosander@dot.ca.gov.

Sincerely,



GAYLE J. ROSANDER
External Project Liaison

Enclosure

c: State Clearinghouse
Mark Reistetter, Caltrans D-9

Comment Letter 2: California Department of Transportation, District 9, Gayle J. Rosander, External Project Liaison (July 29, 2021)

Aerials of some Bellefield SR 58 accesses

Page 1 of 4

30th Street @ SR 58 Postmile 118.4 dirt at median crossover and south approach, some pavement north approach
Not in Postmile Log. Existing use access on the section line.



**Comment Letter 2: California Department of Transportation, District 9, Gayle J. Rosander,
External Project Liaison (July 29, 2021)**

Aerials of some Bellefield SR 58 accesses

Page 2 of 4

30 Street (cont'd)



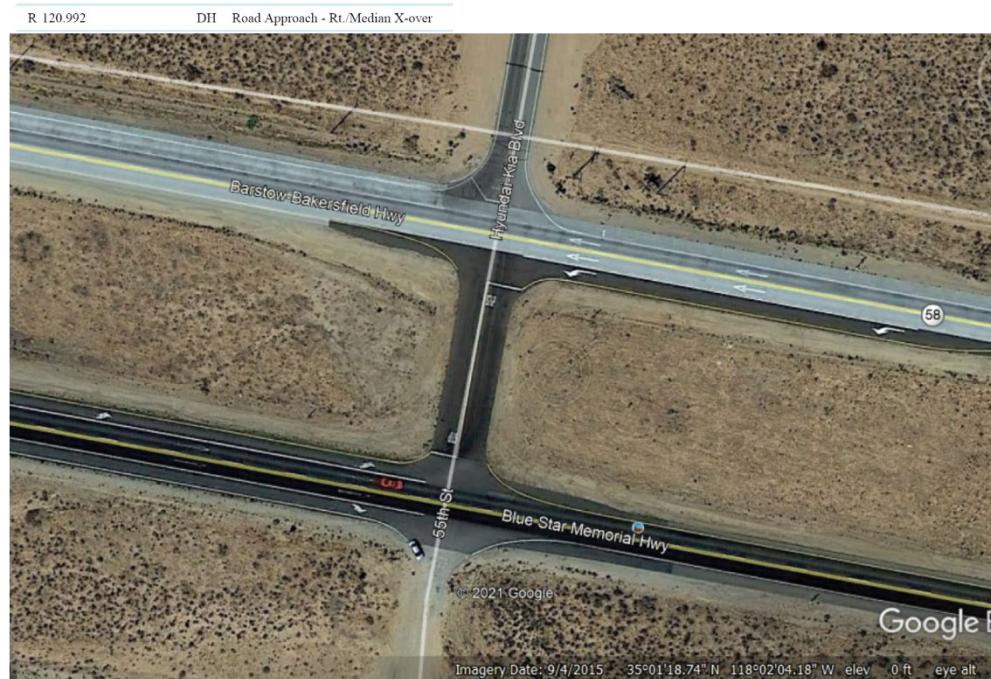
2-C

Comment Letter 2: California Department of Transportation, District 9, Gayle J. Rosander, External Project Liaison (July 29, 2021)

Aerials of some Bellefield SR 58 accesses

Page 3 of 4

55th Street @ SR 58 Postmile 120.99 (Hyundia-Kia) left turn lanes, east bound right



70th/Zoro Street @ SR 58 Postmile 122.45 left turn lanes, east bound right

**Comment Letter 2: California Department of Transportation, District 9, Gayle J. Rosander,
External Project Liaison (July 29, 2021)**

Aerials of some Bellefield SR 58 accesses

Page 4 of 4



Response to Letter 2: California Department of Transportation, District 9, Gayle J. Rosander, External Project Liaison (July 29, 2021)

- 2-A:** This is an introductory comment that does not address the adequacy of the Draft EIR; therefore, no further response is required.
- 2-B:** Project design refinements have been progressing since commencement of work on the Draft EIR, including revisions to locations of construction and permanent site access.

Construction Traffic Routes

The Project site is spread out over several locations on both sides of SR 58 and on both sides of the Burlington Northern and Santa Fe (BNSF) Railway tracks south of SR 58. SR 58 and the BNSF Railway create barriers which require different access routes for construction traffic. Please refer to the following response to comment 2-C, for further information and analysis.

Permanent Site Access

Proposed permanent site access points are illustrated on revised Figures 3.15A-3.15D.

- 2-C:** An updated assessment of temporary construction traffic impacts has been prepared (Stantec, September 2021), attached hereto, and has been added as Appendix M.2 under Appendix M, Transportation Analysis. This was prepared to further clarify the analysis and determinations made in the Draft EIR. That analysis is summarized below, with respect to the various locations where construction traffic will be routed.

Traffic volumes are relatively low on Oak Creek Road daily and during peak periods as shown in the attached traffic count from May 2021. During the one-lane closure phase of construction, traffic is expected to experience minor delays of approximately one to two minutes per vehicle along Oak Creek Road east of the Windhub Substation.

Through traffic is expected to experience little to no delay using SR 58 as an alternative route to avoid the full closure section of Oak Creek Road. CalPortland and the wind farm traffic would experience additional travel times of approximately 2 to 18 minutes to access their sites using alternative travel routes to avoid the closed section of Oak Creek Road. Local wind farm traffic between their site and the nearby wind turbine areas would presumably experience less delay by using the local roads on the wind farm property. These delays would be temporary during the four-to six-week period of full closure. The amount of traffic detoured is not expected to have an adverse effect on the alternate routes.

At the SR 58/Altus Avenue interchange, where construction traffic would primarily access the State highway system for the main construction areas east of SR 58, existing ramp volumes range from a low of 82 ADT to a high of 1,619 ADT. A worst-case scenario where 100 percent of Project construction traffic utilizes the most heavily utilized ramps would result in daily ramp volumes of approximately 3,147 ADT to 3,627 ADT, which is lower than the capacity of a typical single-lane ramp and the ramps would operate without any anticipated operational deficiencies. With typical peak hour volumes representing approximately 8-10 percent of the ADT, queue lengths are not expected to be excessive and would not affect the SR 58 mainline.

Prior to the start of construction, the Project would prepare a phased construction Traffic Management Plan (TMP) based on the specific construction routes and activities established at

that time. Some construction traffic is expected to travel across SR 58 to/from the parcels on both sides of the highway. It is recommended that the dirt median at 30th Street be paved to Caltrans standards to accommodate the anticipated construction traffic. The median at 70th Street is currently paved, and no additional improvements are recommended at this time.

- 2-D:** It is acknowledged that all construction involving work and traffic within the rights of way of SR 14 and 58 are subject to issuance of a Caltrans encroachment permit. This will be addressed as part of the required Construction Traffic Control Plan, as specified in Mitigation Measures MM-4.14-1KC and 4.14-1CC in the Draft EIR.
- 2-E:** It is acknowledged that the project's Construction Traffic Control Plan must address all construction activities, including intersection improvements, gen-tie crossings, Oak Creek Road detours, and the solar power facility itself, and that Caltrans District 9 will be a reviewer of that Plan. This will be implemented through Mitigation Measures MM 4.14-1KC and MM 4.14-1CC, as noted in the previous response.
- 2-F:** This comment provides information on who to coordinate with at Caltrans District 9, regarding permitting, design standards and traffic control. Since it does not address the adequacy of the Draft EIR, no further response is required.

ATTACHMENT: STANTEC MEMORANDUM DATED SEPTEMBER 2, 2021

Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation



Memo

<p>To: Erec Devost 8minute Solar Energy 250 Sutter Street, Suite 600 San Francisco CA 94108</p> <p>File: 185704636</p>	<p>From: Daryl Zerfass / Cathy Lawrence 38 Technology Drive Irvine CA 92618</p> <p>Date: September 2, 2021</p>
--	--

Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

Traffic impacts along State Route 14 (SR 14) and State Route 58 (SR 58) for the Bellefield Solar Project (Project) were previously analyzed in a separate report¹ prepared by Stantec in June 2020. Construction of the overhead and/or underground gen-tie line for the Project is expected to occur along Oak Creek Road between the Windhub Substation and SR 14. Also, construction traffic will utilize the SR 58 ramps at Altus Avenue for access to the primary construction areas east of SR 58. This memo summarizes the potential construction-related effects on traffic circulation when sections of Oak Creek Road are temporarily closed to either one lane or fully closed for construction of the gen-tie line and addresses the SR 58/Altus Avenue ramps.

Existing Conditions

Oak Creek Road is a two-lane undivided roadway running generally east-west between Tehachapi Willow Springs Road in unincorporated Kern County and K Street in Mojave. The road is approximately 10.75 miles long with a 55-mph speed limit. A stop sign is located on the westbound Oak Creek Road leg of the T-intersection at Tehachapi Willow Springs Road, and a four-way stop is provided at the intersection of Holt Avenue and Oak Creek Road. The remaining 10-mile section west of Holt Avenue is uncontrolled. Class II bike lanes are striped on the section of Oak Creek Road east of Koch Street. West of Koch Street the roadway has dirt shoulders.

A small single-family residential development exists adjacent to Oak Creek Road approximately one mile west of SR 14. Farther west of this residential development there are no cross streets intersecting Oak Creek Road between Koch Street and Tehachapi Willow Springs Road; however, dirt roads provide access to the many wind turbines along this section. In addition, the CalPortland plant and a facility for the wind farms obtain access from Oak Creek Road just west of the Windhub Substation.

Existing traffic volumes on Oak Creek Road are relatively low and were counted east of the Windhub Substation in May 2021. The daily volume is approximately 1,600 vehicles with a peak hour volume of approximately 130 vehicles during each of the AM, mid-day, and PM peak hours. The volumes are summarized in **Table 1** (attached).

One-Lane Closure

During the majority of construction of the gen-tie line, one lane of Oak Creek Road would be closed for a period of 12 to 18 months. Traffic would need to be controlled by flaggers through the one-lane section allowing convoys of motorists to proceed one direction at a time. The potential effect on traffic during the one-lane closure phase of construction was evaluated.

¹ Bellefield Solar Project Traffic Impact Analysis, Stantec, June 1, 2020.

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Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

For this analysis, it was assumed that the headway (gap) between vehicles would be approximately 5 seconds, which corresponds to a capacity of 720 vehicles per hour (vph), while traveling on the one-lane segment. Based on the existing traffic volumes, the volume/capacity (V/C) ratio for the one-lane construction zone would be 0.18, which equates to level of service A (LOS A).

For this evaluation it was also assumed that the one-lane closure would occur in one-mile segments. Anticipating a construction zone speed limit of 35 mph, it would take approximately 103 seconds for a vehicle to travel through the one-lane construction zone for one mile. It was estimated that convoys of motorists would be waved through the construction zone in approximately two-minute intervals for alternating directions. During the peak five minutes of the peak hours, the arrival rate of vehicles is assumed to be double the average arrival rate. Random vehicle arrivals were assumed for this analysis with an average arrival rate of 1.6 to 2.8 vehicles per minute during the peak five minutes. Given the arrival rate and the length of one-mile closure section, queues of three to six vehicles would occur during the peak five minutes, and average delays of one to two minutes per vehicle would be expected. Delays of this magnitude are common for construction zones and would not be considered significant.

Table 2 (attached) summarizes the peak hour volumes, average arrival volumes during the peak five minutes of the peak hours, and the queues and average delay expected during the one-lane closure phase of construction along Oak Creek Road.

Full Closure

During connection of the gen-tie line to the Windhub Substation, Oak Creek Road would be completely closed adjacent to the Windhub Substation for a period of approximately four to six weeks.

Traffic on Oak Creek Road consists of through traffic between the Tehachapi and Mojave areas, as well as local traffic to the CalPortland plant and wind farm operator's facilities. The CalPortland plant is presumed to generate truck traffic that utilizes Oak Creek Road to access SR 14. The wind farm facility is presumed to utilize Oak Creek Road for employee access and trips between the facility and the nearby dirt roads leading to the wind turbines. These operators would be affected by the full-closure phase of construction along Oak Creek Road. Alternative routes have been identified and evaluated compared with the direct route via Oak Creek Road.

Through Traffic

Through traffic that uses Oak Creek Road between the Tehachapi and Mojave areas would use SR 58 and SR 58 Business or SR 14 to travel between the two areas rather than use Oak Creek Road during the full closure. The freeway route is a slightly shorter distance and also tends to be four to six minutes faster overall. Therefore, the closure of Oak Creek Road during construction is anticipated to have a negligible effect on through traffic that would detour to the freeway. Furthermore, the effect on the freeway of the small amount of detour traffic added is negligible.

Local Traffic

Traffic between the CalPortland plant and SR 14 to the north would avoid the closed section of Oak Creek Road by traveling to SR 58 via Tehachapi Willow Springs Road/Cameron Canyon Road (referred to herein as Route 1) or via Tehachapi Willow Springs Road/Tehachapi Boulevard (Route 2). Route 1 is a shorter distance than along Route 2; however, the roadway on Cameron Canyon Road is narrower and more curved than the Tehachapi Willow Springs Road/Tehachapi Boulevard route and may not be suitable for heavy vehicles. These routes would add approximately 4 to 15 minutes to the travel time for trips to/from the CalPortland site.

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Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

The CalPortland plant traffic to and from SR 58 east of Mojave would also use the Route 1 or Route 2 detour to SR 58, and would experience 11 to 18 minutes of additional travel time. Traffic to the south on SR 14 would travel along Tehachapi Willow Springs Road to Backus Road (Route 3). This would add approximately 2 to 3 minutes to the CalPortland traffic travel times.

For the wind farm facility traffic with trip origins and destinations to the east via SR 14 and SR 58, delay would be similar in magnitude to that noted for the CalPortland plant above. For local trips heading east of the Windhub Substation to access the wind turbine areas, vehicles could potentially use the dirt roads on the wind farm property to bypass the closed section of Oak Creek Road adjacent to the Windhub Substation. These vehicles are expected to experience minor delay as they navigate the dirt roads.

Table 3 (attached) summarizes the alternative routes expected to be used and the distances and average times to travel the alternative routes.

SR 58 Ramps at Altus Avenue

Construction traffic access to the main construction areas east of SR 58 will primarily occur at the SR 58/Altus Avenue interchange, which is located at approximately SR 58 post-mile (PM) 116, east of the SR 14 interchange and west of the Edwards Air Force Base/Rosamond Boulevard interchange. As discussed in the Project's June 2020 traffic study referenced above, the construction period with the highest volume of construction traffic would occur during the overlap of construction phases 2, 3, 4, and 5. During that period, the Project is estimated to generate a maximum of 3,574 average daily passenger car trips and 204 average daily heavy vehicle trips, for a total of 4,015 average daily trips (ADT) based on a passenger car equivalent (PCE) factor of 2.16. Approximately 2,008 trips would be inbound to the Project site and approximately 2,008 trips would be outbound from the Project site each day.

Analysis of the SR 58 mainline is provided in the Project's June 2020 traffic study, which assumed a worst-case scenario of 100 percent of construction traffic on any given highway segment since the precise origin of construction related traffic is not known. The analysis determined that each highway segment would continue to operate at LOS B or better with the addition of construction traffic. At the Altus Avenue interchange ramps, existing condition (2018) traffic volumes² are as follows:

- Eastbound off to Business 58-East End (Altus Avenue) – 82 ADT
- Westbound on to Business 58-East End (Altus Avenue) – 96 ADT
- Westbound off to Business 58-East End (Altus Avenue) – 1,619 ADT
- Eastbound on to Business 58-East End (Altus Avenue) – 1,139 ADT

Assuming a worst-case scenario where 100 percent of the construction traffic utilizes the westbound off-ramp and the eastbound on-ramp for access to SR 58, daily traffic volumes for the ramps would range from 3,147 ADT to 3,627 ADT for the on-ramp and off-ramp, respectively. Construction traffic would be distributed throughout the day, with the highest concentrations occurring outside the typical peak hours with construction starting in the early morning hours and ending before the typical PM peak hour.

² Caltrans Traffic Census Program, <https://dot.ca.gov/programs/traffic-operations/census>, 2019-District9-Ramp-ADT.xlsx, accessed June 2, 2021.

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Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

Each ramp terminates at Altus Avenue as a single lane controlled by a stop sign, and Altus Avenue consists of two-through lanes in each direction with left-turn pockets in a painted median. The westbound off-ramp is approximately 1,600 feet in length and the eastbound off-ramp is approximately 2,100 feet in length.

The expected daily ramp volumes of approximately 3,147 ADT to 3,627 ADT for worst-case conditions are lower than the capacity of a typical single-lane ramp and the ramps would operate without any anticipated operational deficiencies. With typical peak hour volumes representing approximately 8-10 percent of the ADT, queue lengths are not expected to be excessive and would not affect the SR 58 mainline.

Construction Traffic Routes

The Project site is spread out over several locations on both sides of SR 58 and on both sides of the Burlington Northern and Santa Fe (BNSF) Railway tracks south of SR 58. SR 58 and the BNSF Railway create barriers which require different access routes for construction traffic. Access to each construction location is discussed in the following sections.

Locations East and North of SR 58

The main construction area is located east and north of SR 58, and construction traffic would use Altus Avenue east of SR 58 to access the site. The paved section of Altus Avenue currently ends approximately 2,640 feet east of SR 58. The road would be improved east into the site to accommodate construction traffic. Potential effects from construction traffic on the Altus Avenue/SR 58 interchange are discussed above.

Location West of SR 58

A small piece of the Project site is located between Dominion Street and SR 58 north of Arroyo Avenue. Construction traffic would access this area from SR 58 via the Altus Avenue interchange and travel along Proteus Road north of Altus Avenue. This road is a long dead-end street which ends at the railroad tracks. The Altus Avenue/SR 58 interchange volumes discussed above include construction traffic to this piece of the Project site.

Location South of SR 58 and North of BNSF Railway Tracks

The part of the Project site located between SR 58 and the BNSF Railway tracks would be accessed from the main construction site north of SR 58 via 30th Street or 70th Street. These are existing dirt roads south of SR 58 that form intersections with this segment of the highway.

Construction traffic volumes for this portion of the Project site were estimated based on the proportional size of the parcels south of SR 58 in relation to the overall size of the Project. Construction traffic would be distributed throughout the day, with the highest concentrations occurring outside the typical peak hours with construction starting in the early morning hours and ending before the typical PM peak hour. However, to evaluate the construction traffic's potential impact on peak hour conditions, construction traffic was estimated to be approximately 10 percent of daily traffic during the AM and PM peak hours. Peak hour trips across SR 58 at 30th Street are estimated to be 26 trips inbound during the AM peak hour and 26 trips outbound during the PM peak hour. Peak hour trips across SR 58 at 70th Street are estimated to be 36 trips inbound during the AM peak hour and 36 trips outbound during the PM peak hour.

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Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

Recent SR 58 mainline peak hour volumes were obtained from Caltrans³. Since 30th Street and 70th Street are dirt roads, no other cross traffic or turning vehicles were assumed during the peak hours other than construction traffic. The results of a queuing evaluation performed using Synchro/SimTraffic software are summarized as follows (evaluation worksheets are attached):

Intersection	Peak Hour Trips	AM Peak Hour		PM Peak Hour	
		Movement	95% Queue	Movement	95% Queue
SR 58 & 30th	26	SBT	68 ft	NBT	140 ft
SR 58 & 70th	36	SBT	166 ft	NBT	113 ft

The queuing noted above are construction vehicles on the side street only and would not affect through traffic on SR 58.

Construction traffic is expected to travel across SR 58 to/from the parcels on both sides of the highway. It is recommended that the dirt median at 30th Street be paved to Caltrans standards to accommodate the anticipated construction traffic. The median at 70th Street is currently paved, and no additional improvements are recommended at this time.

Location South of BNSF Railway Tracks

No paved roads access the small portion of the Project located south of the BNSF Railway tracks and east of Sierra Highway/SR 14, and the railroad tracks prevent access to the site from the north. Therefore, access to this portion of the Project would be provided from SR 14 by an intersection with Purdy Avenue. From Purdy Avenue east of SR 14, construction traffic would travel south along United Street then east on Silver Queen Road. The paved segment of Silver Queen Road ends approximately 3,400 feet east of United Street. Construction traffic would continue east along Silver Queen Road to access the site. These are not through streets and mainly provide access to the industrial uses, solar facilities, and scattered residences in the area; therefore, the volumes are low and construction traffic would have no measurable effect on these streets.

The nearby Sanborn Solar project is currently under construction and would be complete by the beginning of construction of the Project. No cumulative impacts are anticipated from the Sanborn Solar project.

Construction traffic volumes for this portion of the Project site were estimated based on the proportional size of the parcels south of the BNSF Railway tracks in relation to the overall size of the Project. To evaluate construction traffic's potential impact on peak hour conditions, construction traffic was estimated to be approximately 10 percent of daily traffic during the AM and PM peak hours. Peak hour trips from SR 14 to Purdy Avenue are estimated to be 6 trips inbound during the AM peak hour and 6 trips outbound during the PM peak hour.

Recent SR 14 mainline peak hour volumes were obtained from Caltrans, and existing southbound and westbound turning movement volumes at the SR 14/Purdy Avenue intersection were estimated. The results of a queuing evaluation performed using Synchro/SimTraffic software are summarized as follows (evaluation worksheets are attached):

³ Caltrans Traffic Census Program, <https://dot.ca.gov/programs/traffic-operations/census>, 2019-Peak-Hours.xlsx, accessed July 30, 2021.

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Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

Intersection	Peak Hour Trips	AM Peak Hour		PM Peak Hour	
		Movement	95% Queue	Movement	95% Queue
SR 14 & Purdy	6	SBL	43 ft	WBR	108 ft

The southbound left-turn pocket is over 500 feet long, and the anticipated southbound left-turn queue is considerable shorter than the available storage. The southbound left-turn queue could be accommodated within the turn pocket and would not adversely affect the mainline traffic on SR 14. Furthermore, the westbound right-turn queue would not affect the SR 14 mainline traffic.

Construction Traffic Mitigation

As the main access point for the Project, all deliveries would go to the main Altus Avenue staging area. The Project would improve Altus Avenue east of SR 58. With the exception of construction traffic for the gen-tie line along Oak Creek Road, construction traffic would not affect circulation in the community of Mojave.

To minimize potential effects from construction traffic on the roadway network, a construction traffic management plan shall be prepared and implemented. The construction traffic management plan would include the following:

- Temporary traffic control devices in accordance with Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD) and notification to the Kern County Public Works Department to identify locations and sections along the gen-tie lines where construction is on-going, including:
 - signs warning of slow-moving vehicles
 - signs warning of merging trucks
 - barriers for separating non-construction vehicles from construction activities
 - traffic control flagmen
 - any additional measures required to manage non-construction traffic through construction areas.
- Scheduling of heavy vehicle traffic to the site during non-peak periods when feasible
- Scheduling of work shift changes to avoid the peak periods when feasible
- Encouraging carpooling among construction workers to reduce workers' passenger vehicle trips in the study area
- Coordinating with local emergency response agencies to provide information regarding emergency response vehicle routes affected by construction activities.

Conclusions

Traffic volumes are relatively low on Oak Creek Road daily and during peak periods as shown in the attached traffic count from May 2021. During the one-lane closure phase of construction, traffic is expected to experience minor delays of approximately one to two minutes per vehicle along Oak Creek Road east of the Windhub Substation.

Through traffic is expected to experience little to no delay using SR 58 as an alternative route to avoid the full closure section of Oak Creek Road. CalPortland and the wind farm traffic would experience additional travel times of approximately 2 to 18 minutes to access their sites using alternative travel routes to avoid the closed

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Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

section of Oak Creek Road. Local wind farm traffic between their site and the nearby wind turbine areas would presumably experience less delay by using the local roads on the wind farm property. These delays would be temporary during the four- to six-week period of full closure. The amount of traffic detoured is not expected to have an adverse effect on the alternate routes.

At the SR 58/Altus Avenue interchange, where construction traffic would primarily access the State highway system for the main construction areas east of SR 58, existing ramp volumes range from a low of 82 ADT to a high of 1,619 ADT. A worst-case scenario where 100 percent of Project construction traffic utilizes the most heavily utilized ramps would result in daily ramp volumes of approximately 3,147 ADT to 3,627 ADT, which is lower than the capacity of a typical single-lane ramp and the ramps would operate without any anticipated operational deficiencies. With typical peak hour volumes representing approximately 8-10 percent of the ADT, queue lengths are not expected to be excessive and would not affect the SR 58 mainline.

Prior to the start of construction, the Project would prepare a phased construction Traffic Management Plan (TMP) based on the specific construction routes and activities established at that time. Some construction traffic is expected to travel across SR 58 to/from the parcels on both sides of the highway. It is recommended that the dirt median at 30th Street be paved to Caltrans standards to accommodate the anticipated construction traffic. The median at 70th Street is currently paved, and no additional improvements are recommended at this time.

Stantec Consulting Services Inc.


Daryl Zeffass PE, PTP
Principal, Transportation Planning and Traffic Engineering

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Cathy Lawrence PE
Transportation Engineer

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Attachment: Table 1 Oak Creek Road – Existing Volume Summary
Table 2 Oak Creek Road – One-Lane Closure Evaluation Summary
Table 3 Oak Creek Road – Full Closure Alternative Routes Comparison Summary
Synchro/SimTraffic Queue Analysis Results

c. Caitlin Barns, Stantec

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Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

Table 1 Oak Creek Road – Existing Volume Summary (Thursday, May 13, 2021)

Location	Hour	EB	WB	Total
Oak Creek Rd east of Windhub Substation				
AM Peak Hour	5 – 6 AM	51	76	127
Mid-Day Peak Hour	3 – 4 PM	53	80	133
PM Peak Hour	4 – 5 PM	57	74	131
Daily	n/a	742	872	1,614
EB = eastbound WB = westbound				

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Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

Table 2 Oak Creek Road – One-Lane Closure Evaluation Summary

Time Period	Volume			V/C	Average 5-min Volume (veh)		Peak 5-min Volume (veh)		Peak 5-min Arrival Rate (veh/min)		Queue 2-min Convoy (veh)		Average Delay (min)	
	EB	WB	Total		EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Oak Creek Rd east of Windhub Substation														
AM Peak Hour	51	76	127	0.18	4	6	8	12	1.6	2.4	3	5	1	2
Mid-Day Peak Hour	53	80	133	0.18	4	7	8	14	1.6	2.8	3	6	1	2
PM Peak Hour	57	74	131	0.18	5	6	10	12	2.0	2.4	4	5	1	2
EB = eastbound WB = westbound V/C = volume/capacity veh= vehicles min = minutes vph = vehicles per hour														
Assumptions: One lane capacity = 720 vph One lane closed in 1-mile sections 35 mph through construction zone 103 seconds to travel 1-mile construction zone Random vehicle arrivals, 2x average during peak 5 minutes														

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Reference: Bellefield Solar Project Construction – Oak Creek Road Closures and Altus Avenue Ramp Evaluation

Table 3 Oak Creek Road – Full Closure Alternative Routes Comparison Summary

Destination		Distance (miles)	Approximate Travel Time (minutes)		Expected Delay (minutes)
Through Traffic					
To/From Tehachapi and Mojave			EB	WB	
	via Oak Creek Rd	21.0	26	24	
	via SR 58/SR 58 Business	20.9	20	20	None ¹
Local Traffic to/from CalPortland and Wind Farm Sites					
North to/from SR 14/SR 58 Interchange			NB	SB	
Existing Route	via Oak Creek Rd/SR 14	10.6	17	13	
Alternative Route 1	via Tehachapi Willow Springs Rd/ Cameron Canyon Rd/SR 58	18.3	21	23	4 – 10
Alternative Route 2	via Tehachapi Willow Springs Rd/ Tehachapi Blvd/SR 58	27.5	27	28	10 – 15
East to/from SR 58/Mojave Barstow Hwy Interchange			EB	WB	
Existing Route	via Oak Creek Rd/SR 14	11.8	15	15	
Alternative Route 1	via Tehachapi Willow Springs Rd/ Cameron Canyon Rd/SR 58	23.4	26	27	11 – 12
Alternative Route 2	via Tehachapi Willow Springs Rd/ Tehachapi Blvd/SR 58	32.6	31	33	16 – 18
South to/from SR 14/Backus Rd Interchange			NB	SB	
Existing Route	via Oak Creek Rd/SR 14	14.6	17	17	
Alternative Route 3	via Tehachapi Willow Springs Rd/ Backus Rd	19.1	20	19	2 – 3
¹ SR 58 route is approximately 4 – 6 minutes faster for through traffic in comparison to Oak Creek Road route.					
NB = northbound SB = southbound EB = eastbound WB = westbound					

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**Bellefield Solar
Construction Traffic**
SimTraffic Report - Multiple Runs
 Queuing and Blocking Report

Intersection: 1: SR 14 & Purdy Ave - AM IB vols

Movement	WB	WB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	413	232	48
Average Queue (ft)	268	69	16
95th Queue (ft)	570	239	43
Link Distance (ft)	771		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		250	570
Storage Blk Time (%)	39	0	
Queuing Penalty (veh)	20	0	

Intersection: 1: SR 14 & Purdy Ave - PM OB vols

Movement	WB	WB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	224	141	88
Average Queue (ft)	101	38	30
95th Queue (ft)	221	108	76
Link Distance (ft)	766		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		250	570
Storage Blk Time (%)	4	0	
Queuing Penalty (veh)	2	0	

Intersection: 2: 30th St - AM IB vols & Hwy 58

Movement	SB
Directions Served	LTR
Maximum Queue (ft)	77
Average Queue (ft)	28
95th Queue (ft)	68
Link Distance (ft)	492
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Bellefield Solar Construction Traffic

SimTraffic Report - Multiple Runs Queuing and Blocking Report

Intersection: 2: 30th St - PM OB vols & Hwy 58

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	123
Average Queue (ft)	53
95th Queue (ft)	140
Link Distance (ft)	574
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: 70th St - AM IB vols & Hwy 58

Movement	SB
Directions Served	LTR
Maximum Queue (ft)	145
Average Queue (ft)	78
95th Queue (ft)	166
Link Distance (ft)	576
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: 70th St - PM OB vols & Hwy 58

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	117
Average Queue (ft)	56
95th Queue (ft)	113
Link Distance (ft)	586
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 22

Comment Letter 3: California Department of Fish and Wildlife, Julie A. Vance, Regional Manager (August 16, 2021)

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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



August 16, 2021

Ronelle Candia
Kern County Planning and Natural Resources Department
2700 "M" Street Suite 100
Bakersfield California, 93301

Subject: Bellefield Solar Project (Project)
Draft Environmental Impact Report (DEIR)
SCH No.: 2021010168

Dear Ms. Candia:

The California Department of Fish and Wildlife (CDFW) received a DEIR from the Kern County Planning and Natural Resources Department for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

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 Fish and Game Code.

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 projects and related activities that have the potential to adversely affect fish and wildlife resources.

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

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.

Conserving California's Wildlife Since 1870

Comment Letter 3: California Department of Fish and Wildlife, Julie A. Vance, Regional Manager (August 16, 2021)

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Ronelle Rheta Candia
Kern County Planning and Natural Resources Department
August 16, 2021
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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 may be required.

3-B
cont'd

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include, sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

3-C

PROJECT DESCRIPTION SUMMARY

Proponent: Bellefield Solar Project

Objective: The project proponent proposes to develop a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,500 megawatts (MW) of alternating current (AC) power with an up to 1,500 megawatt-hour (MWh)- AC energy storage system on approximately 8,371 acres of privately owned land within unincorporated Kern County and the City of California City, California.

The project would be supported by a 230 kV gen-tie overhead and/or underground electrical transmission line(s) originating from one or more on-site substations and terminating at the Southern California Edison (SCE) Windhub Substation. 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 (O&M) facilities.

3-D

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the city of Kern County Planning and Natural Resources Department in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document prepared for this Project.

3-E

There are special-status species that have been observed in the Project area and may be present at individual Project sites in the Project area. These resources may need to be evaluated and addressed prior to any approvals that would allow ground-disturbing activities or land use changes.

Comment Letter 3: California Department of Fish and Wildlife, Julie A. Vance, Regional Manager (August 16, 2021)

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Ronelle Rheta Candia
Kern County Planning and Natural Resources Department
August 16, 2021
Page 3

Mitigation Measure (MM) 4.4-15KC (a) states, "The project operator has filed for an Incidental Take Permit for Mohave ground squirrel and desert tortoise with California Department of Fish and Wildlife, and a Habitat Conservation Plan with the United States Fish and Wildlife Service for desert tortoise." Please note that several of the proposed mitigation measures have the potential to, or would likely, result in take of these two species as defined in Fish and Game Code section 86. Absent appropriate take authorization, these actions would violate CESA. However, CDFW does not have any further comments for these species because of the intent to acquire an Incidental Take Permit (ITP). If an ITP is not acquired, CDFW strongly recommends that the Project consult with us immediately to determine how the Project can avoid take and what, if any, mitigation measures need to be changed to comply with CESA.

3-F

In addition the proposed mitigation measures listed in the DEIR, CDFW is concerned about the adequacy of mitigation measures for the State threatened Swainson's hawk (*Buteo swainsoni*), the fully protected golden eagle (*Aquila chrysaetos*), and the desert kit fox (*Vulpes macrotis arsipus*), which is protected under the California Code of Regulations, Chapter 5, Section 460. As currently written, proposed mitigation measures may not be adequate to reduce impacts to less than significant or avoid unauthorized take. For Swainson's hawk, no species specific mitigation measures are proposed. CDFW offers the following comments and recommendations to assist the Kern County Planning and Natural Resources Department and ensure that the proposed mitigation measures adequately mitigate the Project's significant, or potentially significant, direct and indirect impacts on these species.

3-G

3-H

3-I

Mitigation Measure (MM) 4.4-18KC (c) (2): The DEIR indicates that there are active dens within the Project area, as such CDFW recommends that in addition to passive relocation, any hand excavation of dens be prohibited during the pupping season. CDFW recommends that prior to any excavation of desert kit fox (DKF) dens that a DKF den excavation plan be submitted for review by CDFW in order to prevent any inadvertent take of the species. CDFW also recommends that this measure be edited to prohibit den excavation during the pupping season to avoid possible pup mortality resulting from a lack of available refugia. Kit fox are known to use multiple dens during the pupping season, and currently vacant dens may be needed when desert kit fox relocate their pups. If this measure is infeasible, consultation with CDFW is warranted for guidance on take avoidance measures for the desert kit fox. In addition, CDFW recommends all perimeter fencing be raised five to seven inches above ground level and knuckled under to allow desert kit fox movement into and out of the Project site.

3-J(1)

3-J(2)

3-J(3)

3-J(4)

Swainson's Hawk (SWHA): The DEIR indicates that there is moderate to moderately high potential for SWHA to occur on the project site but no suitable nesting habitat. The DEIR however, also acknowledges Western Joshua tree (WJT) as potential nesting habitat for SWHA, which is present throughout the Project area, thus suitable nesting habitat for SWHA is present and the Project has the potential to impact SWHA. CDFW recommends that measures be taken to prevent unauthorized take of, and reduce significant impacts to, SWHA in accordance with the "Swainson's Hawk Survey

3-K

Comment Letter 3: California Department of Fish and Wildlife, Julie A. Vance, Regional Manager (August 16, 2021)

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Page 4

Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California" (CEC and CDFG 2010).

Recommended Mitigation Measure 1: SWHA Surveys

To evaluate potential impacts, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting SWHA following the survey methods described in the aforementioned Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (CEC and CDFW Protocol) prior to project implementation. In addition to identifying potential SWHA nests, this survey will identify the Project site's potential to impact SWHA nests and inform their consideration as SWHA foraging habitat.

Recommended Mitigation Measure 2: SWHA Monitoring and Mitigation Plan

If SWHA nests are observed, CDFW recommends that a SWHA Monitoring and Mitigation Plan (Plan) be developed in consultation with CDFW as described in the Protocol. CDFW recommends that this plan include a minimum no disturbance buffer of 0.5 mile be delineated around active nests until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, and ensure that enough foraging habitat remains undisturbed around the nest site to support the nest and allow fledging. CDFW also recommends that the Plan include compensation for the loss of SWHA foraging habitat to reduce impacts to SWHA foraging habitat to less than significant based as described in the CEC and CDFW Protocol.

Recommended Mitigation Measure 3: SWHA Take Authorization

If a 0.5-mile buffer or maintenance of suitable habitat to support the nest site isn't feasible, then consultation with CDFW is warranted to determine if the Project can 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.

Golden Eagle: Be advised that golden eagle (*Aquila chrysaetos*) is a fully protected species in California thus, if any active or potential nests are detected in range of the Project site consultation with CDFW is warranted to determine how the Project can avoid take.

Federally Listed Species: CDFW recommends consulting with the USFWS on potential impacts to federally listed species including, but not limited to, desert tortoise and golden eagle. Take under FESA is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with FESA is advised well in advance of any ground-disturbing activities.

3-K
cont'd

3-L

3-M

Comment Letter 3: California Department of Fish and Wildlife, Julie A. Vance, Regional Manager (August 16, 2021)

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Ronelle Rheta Candia
Kern County Planning and Natural Resources Department
August 16, 2021
Page 5

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link:

<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. types of information reported to CNDDDB can be found at the following link:
<https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

3-N

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

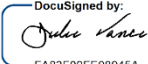
3-O

CDFW appreciates the opportunity to comment on the Project to assist the Kern County Planning and Natural Resources Department in identifying and mitigating the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>). If you have any questions, please contact Jaime Marquez, Environmental Scientist, at the address provided on this letterhead, or by electronic mail at Jaime.Marquez@wildlife.ca.gov.

3-P

Sincerely,

DocuSigned by:

FA83F09FE08945A...
Julie A. Vance
Regional Manager

Comment Letter 3: California Department of Fish and Wildlife, Julie A. Vance, Regional Manager (August 16, 2021)

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Kern County Planning and Natural Resources Department
August 16, 2021
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LITERATURE CITED

California Energy Commission (CEC) and California Department of Fish and Game (CDFG). 2010. Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California. California Energy Commission and Department of Fish and Game. June 2, 2010

3-Q

Response to Letter 3: California Department of Fish and Wildlife, Julie A. Vance, Regional Manager (August 16, 2021)

- 3-A:** This comment is an introductory comment. No further response is necessary.
- 3-B:** This comment provides an introductory overview including California Department of Fish and Wildlife's (CDFW) role as a CEQA Trustee Agency and potentially a CEQA Responsible Agency for the proposed project. No further response is necessary.
- 3-C:** The County acknowledges CDFW's jurisdiction over actions with potential to result in unauthorized take of birds during construction or decommissioning. The EIR addresses the project's potential impacts to nesting birds (see EIR page 4.4-3). As indicated on EIR page 4.4-3, implementation of Mitigation Measures MM 4.4-1KC through MM 4.4-8KC, MM 4.4-10KC, MM 4.4-11KC, MM 4.4-19KC, MM 4.4-21KC, MM 4.4-1CC through MM 4.4-8CC, MM 4.4-10CC, MM 4.4-11CC, MM 4.4-19CC, and MM 4.4-21CC potential impacts to nesting birds would be reduced to less than significant. These measures involve retention of a Lead Biologist to direct construction activities in ways that avoid impacts, preparation and implementation of a construction Worker Environmental Awareness Program (WEAP), general avoidance and protective measures, requirements for preconstruction nesting bird surveys, and development of a Common Raven Management Plan.
- 3-D:** This comment provides a general summary of the proposed project. No further response is necessary.
- 3-E:** Regarding special status species that have been observed in the project area, this comment does not specifically identify or provide direct reference to any special status species; therefore, no specific response is possible. However, to the extent that special status species are referenced in ensuing comments, these comments are addressed. Please refer to responses to comments 3-F through 3-N which provide good faith, reasoned analysis in each corresponding response.
- 3-F:** No unauthorized take of Mohave ground squirrel and desert tortoise is proposed. As stated in the Draft EIR, the project applicant has applied for an incidental take permit with CDFW for both of these species (see EIR page 4.4-13, MM 4.4-15KC). As required by MM 4.4-15KC, "The Final Interim Take Permit and approved Habitat Conservation Plan shall be submitted to Kern County prior to the onset of activities that have the potential to impact covered species."
- 3-G: Swainson's Hawk** – As discussed in the Draft EIR, the State listed Swainson's hawk is not known to nest within the limits of the project area but may potentially occur on-site to forage, hunt, roost, perch or migrate through. Specifically, as identified in Table 4.4-3, this species is "not known to nest within 5 miles of the project area and nesting habitat is not present in the project area." Mitigation Measures recommended in the Draft EIR including MM 4.4-1KC through MM 4.4-4KC would reduce potential impacts to this species during construction to a level less than significant. With respect to long-term impacts, it is not expected that the Swainson's hawk would use the project site for foraging due to the absence of agricultural fields, which is this species' preferred type of foraging habitat in the region. Therefore, while availability of potential foraging habitat would be reduced due to the presence of solar panels and associated facilities, this reduction would not be significant due to the low potential for Swainson's hawk to occur onsite. In addition, solar PV panels consist of non-reflective glass that minimizes the "fake lake-effect" (see EIR page 4.4-5), which would avoid significant impacts related to potential avian collision.

Golden Eagle – As identified on EIR page 4.4-1, there is appropriate habitat for foraging and perching in the area with suitable nesting habitats nearby; and nearby known occurrences. Golden eagle was not observed during the August -October 2019 and April - May 2020 surveys (EIR page 4.4-2).

This comment does specifically address the adequacy of the proposed mitigation measures. As identified in the Draft EIR, potential direct impacts to raptor species, which includes golden eagle, include construction of gen-tie lines and collector transmission lines which could provide additional perching structures that pose a high risk of electrocution and death for large birds. This potential impact would be mitigated to less than significant through implementation of Mitigation Measures MM 4.4-19KC through MM 4.4-21KC, and MM 4.4-19CC through MM 4.4-21CC.

Further, potential indirect impacts to raptors include the loss of foraging habitat and interference with reproductive success at nearby or potential on-site nests due to noise and human presence associated with project construction and/or decommissioning activities. For instance, if red-tailed hawks were nesting within 500 feet or line of sight, project-related activities could potentially result in a nest failure. This potential impact would be mitigated to less than significant through implementation of Mitigation Measures MM 4.4-20KC through MM 4.4-22KC and MM 4.4-20CC through MM 4.4-22CC.

The County acknowledges that The Bald and Golden Eagle Protection Act of 1940 protects bald eagles and golden eagles (see EIR page 4.4-10). No take of golden eagle is anticipated with implementation of the mitigation measures identified above for both direct and indirect impacts.

Desert Kit Fox – As identified on EIR Table 4.4-3, the project site contains appropriate habitat for the desert kit fox, and there are nearby known occurrences of this species (see EIR page 4.4-0). Further, a total of 368 active and inactive desert kit fox dens were observed during biological resources surveys of the project site (see EIR page 4.4-6). No pupping dens were detected either during the 2019 or 2020 biological surveys of the project area. The County acknowledges that under Section 4000 of the California Fish and Game Code, it is unlawful to conduct activities that would result in the taking, possessing, or destroying of any fur-bearing mammals, including desert kit foxes, without prior authorization from the CDFW (see EIR page 4.4-13).

As addressed in the Draft EIR, because the potential for desert kit fox has a moderate to high occurrence throughout the project area, construction and/or decommissioning activities that may include site grading, heavy equipment operation, and/or general vehicle traffic could kill or injure desert kit fox as a result of collisions with construction equipment or entombment in dens. Construction and decommissioning activities could also result in disturbance or harassment of individuals. Conversion of potential habitat to a PV solar facility may also result in local reductions in foraging and dispersal habitat for desert kit fox.

However, with implementation of Mitigation Measures MM 4.4-1KC through MM 4.4-8KC, MM 4.4- 10KC, MM 4.4-11KC, and MM 4.4-18KC; and, MM 4.4-1CC through MM 4.4-8CC, MM 4.4-10CC, MM 4.4-11CC, and MM 4.4-18CC, potential impacts to desert kit fox would be reduced to less than significant. Mitigation Measure MM 4.4-18KC specifically addresses potential impacts to desert kit fox. MM 4.4-18KC requires preconstruction surveys with various protocols to be implemented should this species be present on-site. MM 4.4-18KC(c)(4) requires that, “The project operator shall contact California Department of Fish and Wildlife immediately if pupping kit fox dens are detected to determine suitable buffers and other measure to avoid take.”

- 3-H:** Please refer to previous responses to comment 3-G.
- 3-I:** Please refer to response to comment 3-G regarding Swainson's hawk.
- 3-J(1):** Mitigation Measure MM 4.4-18KC requires that pre-construction surveys be performed which will determine the presence or absence of desert kit fox (prior to den excavation). This measure identifies the protocol for den excavation if dens are both inactive or active. Measures implemented in the event that active dens are identified would avoid impacts to this species so that no take of the species would occur.
- 3-J(2)** Mitigation Measure MM 4.4-18KC item (c)(1)4.4-19, item "d" has been modified to include the provision recommended by CDFW in this comment as follows:
1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent badgers or foxes from reuse during construction. Den excavation shall be prohibited during the pupping season to avoid possible pup mortality resulting from a lack of available refugia.
- Further as stated in response to comment 3-G, MM 4.4-18KC(c)(4) requires that, "The project operator shall contact California Department of Fish and Wildlife immediately if pupping kit fox dens are detected to determine suitable buffers and other measure to avoid take."
- 3-J(3):** Please refer to response to comment 3-J(2).
- 3-J(4):** The project applicant has applied for an ITP for the Mohave ground squirrel and desert tortoise prior to any ground- or vegetation disturbance, which would address CDFW's concerns identified in this comment regarding proposed fencing.
- 3-K:** Please refer to response to comment 3-G regarding Swainson's Hawk. Mitigation Measures are proposed that would reduce potential impacts to Swainson's Hawk to a level less than significant.
- 3-L:** Please refer to response to comment 3-G regarding golden eagle.
- 3-M:** The project applicant is in the process of consulting with the USFWS with respect to federally listed species potentially impacted by the project – specifically Mohave ground squirrel and desert tortoise.
- 3-N:** Comment noted. Monitoring biologists will report special-status and natural communities detected to the CNDDB as standard practice.
- 3-O:** CDFW filing fees will be paid at the time of filing the Notice of Determination in accordance with Fish and Game Code Section 711.4.
- 3-P:** Comment noted.

Local Agencies

Comment Letter 4: Kern County Public Works Department (KCPWD), Floodplain Management Section, Kevin Hamilton by Brian Blase (July 12, 2021)

Letter 4: Kern County Public Works Department, Floodplain Management Section, July 12, 2021

Office Memorandum

KERN COUNTY

To: Planning and Natural Resources
Department
Ronelle Candia

Date: July 12, 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
Bellefield Solar Project**

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

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

4-A

The subject property is subject to flooding.

4-B

Therefore, this section recommends 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.

4-C

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

4-D

Response to Letter 4: Kern County Public Works Department (KCPWD), Floodplain Management Section, Kevin Hamilton by Brian Blase (July 12, 2021)

- 4-A:** The commenter notes that stormwater runoff from the site would increase due to the increase in impervious surfaces resulting with project implementation.

The Draft EIR acknowledges that project implementation would increase the amount of impervious surfaces on-site, which may in turn result in a potential increase in stormwater runoff. However, the majority of the project site would remain pervious and would therefore continue to absorb precipitation. Such characteristics were evaluated in the Draft EIR pursuant to CEQA, as applicable; refer to Section 4.10, *Hydrology and Water Quality*. The comments provided have been noted for the record, and no revisions to the Draft EIR are required.

- 4-B:** The commenter notes that the project site is subject to flooding.

The Draft EIR acknowledges that the subject property is subject to flooding; such characteristics were evaluated in the Draft EIR pursuant to CEQA, as applicable; refer to Section 4.10, *Hydrology and Water Quality*. The comments provided have been noted for the record, and no revisions to the Draft EIR are required.

- 4-C:** The commenter requests that the project proponent submit a plan for the disposal of drainage waters originating on-site and from adjacent road rights-of-way, and that such actions be made Conditions of Approval for the project.

The site engineering and design plans for the project would conform to requirements of the Kern County Code of Building Regulations, the Kern County Development Standards, and the Floodplain Management Ordinance, as well as goals and policies of the Kern County General Plan and City of California City General Plan. Furthermore, site drainage plans would be required to comply with Division Four of the Kern County Development Standards, which provide guidelines including site development standards and mitigation, flood control requirements, erosion control, and on-site drainage flow requirements. Project conformance with such existing regulations pertaining to erosion and site drainage would neither alter the course of a stream or river nor result in substantial erosion on-site or off-site. As described in Section 4.10 of the Draft EIR, implementation of mitigation measures MM 4.10-1KC and MM 4.10-1CC, which would require preparation and implementation of a stormwater pollution prevention plan, and mitigation measures MM 4.10-2KC and MM 4.10-2CC, which would require preparation and implementation of a final hydrologic study and drainage plan, would reduce project impacts in this regard to less than significant. The comments provided have been noted for the record, and revisions to the Draft EIR are not necessary.

- 4-D:** The commenter requests that the project proponent be required to incorporate flood hazard requirements into the project design per County standards as a Condition of Approval.

Refer to Response 4-C, above.

**Comment Letter 5: Kern County Fire Department, Michael Nicholas, Assistant Fire Marshal
(July 26, 2021)**

Letter 5 Kern County Fire Department July 26, 2021

**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



July 26, 2021

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

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 Bellefield 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.

5-A

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

5-B

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

Proudly Serving the Cities of Arvin, Bakersfield, Delano, Maricopa, McFarland, Ridgecrest, Shafter,
Taft, Tehachapi, Wasco, and all Unincorporated Areas of Kern County

Response to Letter 5: Kern County Fire Department, Michael Nicholas, Assistant Fire Marshal (July 26, 2021)

- 5-A:** The commenter describes the Kern County Fire Department's (KCFD) local regulatory authority to enforce state and local codes related to fire protection and health and safety. The commenter states that the project will be required to meet standards set forth by the KCFD and to submit plans and obtain a permit from the KCFD for installation of a battery energy storage system. Additionally, the commenter indicates that the project would be subject to payment of applicable fees prior to permit issuance.

The County acknowledges the comments provided; such requirements as stated will be made Conditions of Approval for the project. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comments provided have been noted for the record, and no revisions to the Draft EIR are necessary.

- 5-B:** The commenter states that the KCFD will provide more detailed review comments at the time of KCFD plan review and building permit issuance.

This comment does not raise a substantive issue on the content of the Draft EIR. The comments provided have been noted for the record, and revisions to the Draft EIR are not necessary.

Interested Parties and Organizations

Comment Letter 6: SoCalGas, A Sempra Energy Utility, SoCalGas Transmission Technical Services (July 12, 2021)

Letter 6 SoCalGas Transmission Technical Services Department (July 12, 2021)



Transmission Technical
Services Department

9400 Oakdale Ave
Chatsworth, CA 91311
SC9314

July 12, 2021

Ronelle Candia
Kern County Planning
CandiaR@kerncountv.com

Subject: Draft Environmental Impact Report for the Bellefield Solar Project by 50LW
8ME LLC
(SMinute Energy) (SCH #2021010168)

DCF: 1243-21NC

The Transmission Department of SoCalGas does not operate any facilities within your proposed improvement. However, the Distribution Department of SoCalGas may maintain and operate facilities within your project scope.

To assure no conflict with the Distribution's pipeline system, please e-mail them at:

NorthwestDistributionUtilityRequest@semprautilities.com

6-A

Best Regards,

SoCalGas Transmission Technical Services
SoCalGasTransmissionUtilityRequest@semprautilities.com

Response to Letter 6: SoCalGas, A Sempra Energy Utility, SoCalGas Transmission Technical Services (July 12, 2021)

6-A: The commenter states that SoCalGas does not operate any facilities within the project boundaries; however, the utility may operate facilities within the project scope. The commenter provides contact information and suggests the project applicant contact the utility to ensure that no conflicts occur with project implementation.

The County acknowledges the request, and the applicant would be required to comply with such recommendations prior to any ground-disturbing activities. This comment does not raise a substantive issue on the content of the Draft EIR. The comments provided have been noted for the record, and revisions to the Draft EIR are not necessary.

Comment Letter 7: San Manuel Band of Mission Indians, Jamie Nord, Cultural Resources Technician (July 13, 2021)

From: [Jamie Nord](#)
To: [Ronelle Candia](#)
Cc: [Ryan Nordness](#)
Subject: RE: Draft EIR for Bellefield Solar Project, California City, Kern County, California
Date: Tuesday, July 13, 2021 3:19:41 PM
Attachments: [image002.png](#)
[image004.png](#)
[image006.png](#)
[image008.png](#)

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Dear Ronelle Candia,

Thank you for contacting the San Manuel Band of Mission Indians (SMBMI) regarding the above-referenced project. SMBMI appreciates the opportunity to review the project documentation, which was received by the Cultural Resources Management Department on July 7th, 2021. The proposed project is located outside of Serrano ancestral territory and, as such, SMBMI will not be requesting to receive consulting party status with the lead agency or to participate in the scoping, development, or review of documents created pursuant to legal and regulatory mandates.

7-A

Kind regards,

Jamie Nord

CULTURAL RESOURCES TECHNICIAN

Email: Jamie.Nord@SanManuel-NSN.Gov

O: (909) 864-8933 ext. 3421

M: (909) 649-1186

Internal ext.: 50-3421

26569 Community Center Dr Highland California 92346



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Response to Letter 7: San Manuel Band of Mission Indians, Jamie Nord, Cultural Resources Technician (July 13, 2021)

7-A: The commenter indicates that the project site is located outside of Serrano territory. The commenter also states that the San Manuel Band of Mission Indians does not request to further consult with the County on the project.

The County understands that the SMBMI is not requesting further consultation relative to potential Native American resources in the project area. The comments provided have been noted for the record; no revisions to the Draft EIR are necessary.

Comment Letter 8: Hernandez, Mary-Anne (August 9, 2021)

From: M.
To: mthdz58@gmail.com; Ronelle Candia
Subject: EIR for the Bellefield Solar Project by 50LW 8ME LLC (8Minute Energy) (SCH#2021010168)
Date: Monday, August 9, 2021 11:48:36 AM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Dear Ms Candia,the

This is my email regarding the Bellefield Solar Project. A second email is being sent regarding turbines and panels that was found but was not attach to this email. Please email me that you received this email. Either email address is correct.

AIR QUALITY

1) Impact 4.3-2 states the project would expose sensitive receptors to substantive pollutants concentrations. Potentially Significant

2) Impact 4.3-4 the project would result in an increase in pollutants to the air quality

CUMULATIVE IMPACT = SIGNIFICANT UNAVOIDABLE

Since when has poor air quality and it's pollutants become unavoidable and not a concern for all? Isn't that why we have the EPA and California's Air Quality Management Control Boards to protect the air, our health and the environment? If air qualities is so insignificant why do vehicles have catalytic converters?

BIOLOGICAL RESOURCES

1) Impact 4.4-1 states would be a a substantial adverse effect on the habitat modifications. Potentially Significant

2) Impact 4.4-4 states would substantially interfere with wildlife. Potentially Significant

3) Impact 4.4-5 states would interfere with local policies and ordinances protecting biological resources. Potentially Significant

CUMULATIVE IMPACT = POTENTIALLY SIGNIFICANT UNAVOIDABLE

This area was a reserve for the desert tortoise and other species. Why does this now mean so little in order to build a solar power plant?

CULTURAL RESOURCES

1) Impact 4.7-5 states substantial soil erosion and loss of top soil = potentially significant.

2) Impact 4.7-6 states the project would be located on unstable soil or would become so and cause on and off site landslides, liquefaction or collapse. Potentially significant

3) Impact 4.7-7 states would create substantial risk to life or property. Potentially significant.

4) Impact 4.7-8 states soil unable to support septic system or disposal of waste water. Potentially significant.

5) Impact 4.7-9 states directly/indirectly destroys paleontological resource or site, unique geologic features. Potentially significant

CUMULATIVE IMPACT = SIGNIFICANT UNAVOIDABLE

Erosion of desert soil, the liquefaction of the land and to potentially collapse this should be a concern to everyone, be they a landowner or not.

HAZARD AND HAZARDOUS MATERIALS

1)is Impact 4.9-1 states states the project would create significant HAZARD to the public or environment. Potentially significant.

2) Impact 4.9-2 states would release of hazardous material into the environment from foreseeable upset and accidents. Potentially significant

3) Impact 4.9-3 states WOULD result in hazardous conditions for people living and working in the project area. Potentially significant

4) Impact 4.9-5 states WOULD expose people or structures directly/indirectly significant risk of loss, injury or death involving wildfire. Potentially significant

CUMULATIVE IMPACT ***SIGNIFICANT AND UNAVOIDABLE?

It must be a great comfort to the residents of the area to know that the County of Kern, (if it approves this project)

8-A

8-B

8-C

8-D

8-E

8-F

8-G

8-H

8-I

Comment Letter 8: Hernandez, Mary-Anne (August 9, 2021)

and 8 Minute Energy see the potential damages to their families, their properties and livelihood are DEEMED UNAVOIDABLE!

The rest of the impacts in this report are a repetition of what was previously noted above. The long term effects, the detriment to humans, their well fair, property value, the animals, the plant life and the environment that this project may cause will not be seen or known for years to come. An article in the Smithsonian Magazine Daily Newsletter July 30, 2021 "Dogs Sniff Out Answers to Bat and Bird Fatalities Near Turbines" by David Kindy SMITHSONIANMAG.COM. The article notes the fatalities of these creatures were greater than originally thought by human calculations. With the assistance of dogs they were able to determine more bat and bird fatalities. How long would the public have to wait to learn that the desert tortoise, the ground squirrel and the Joshua trees to name a few have lost their habitat and we will have unfortunately lost them? These species have been here long before us and should remain here long after we have gone.

The issue of property value and the effects of this project on the future of Kern County is of great importance; but, the effects on our environment, the beauty of the desert, the peace and tranquility for generations to come will be lost and become a mire memory of the past if this project proceeds.

Mitigation remarks were noted but they will never restore the desert to its majestic beauty once it has been desecrated by a blanket of solar panels.

Thank you for you time.
Sincerely,

Mary-Anne Hernandez
APN 235-352-15
Tel: 323-573-4721

8-I
cont'd

8-J

8-K

8-L

8-M

8-N

8-O

8-P

Response to Letter 8: Hernandez, Mary-Anne (August 9, 2021)

- 8-A:** The commenter indicates that she has provided two letters of comment and requests that the County confirm receipt of the comments submitted.

This comment does not raise a substantive issue on the content of the Draft EIR. The comments provided have been noted for the record, and revisions to the Draft EIR are not necessary.

- 8-B:** The commenter summarizes Impact 4.3-2 and notes that project effects on air quality would be potentially significant. The commenter also restates Impact 4.3-4 which indicates that the project would contribute to a significant and unavoidable cumulative impact relative to air quality; the commenter raises concern as to the significance finding of unavoidable impacts on air quality.

As analyzed in Section 4.3, *Air Quality*, of the Draft EIR, the project would result in significant impacts relative to air quality; however, on a project level, mitigation measures would be implemented to reduce such impacts to less than significant. Mitigation measures would also be implemented for project contributions to potential cumulative impacts relative to air quality to reduce such impacts to the extent feasible; however, cumulative construction and decommissioning impacts would remain significant and unavoidable. The analysis of potential project effects on air quality has been adequately addressed in accordance with CEQA requirements to ensure that any adverse project effects are minimized as appropriate. The comments provided have been noted for the record, and revisions to the Draft EIR are not necessary in response.

- 8-C:** The commenter questions the purpose of the EPA (Environmental Protection Agency) and “California Air Quality Management Control Boards” in protecting air quality, health, and the environment.

The agencies referred to are responsible for identifying and implementing standards and regulations pertaining to the protection and improvement of air quality for the state and for the region. However, the comments provided do not raise a substantive issue on the content of the Draft EIR. Such comments have been noted for the record; revisions to the Draft EIR are not necessary.

- 8-D:** The commenter raises the question as to why vehicles have catalytic converters if air quality is “insignificant.”

This comment does not raise a specific question relative to CEQA nor identify a substantive issue pertaining to the content or analysis provided in the Draft EIR. The comments provided have been noted for the record, and revisions to the Draft EIR are not necessary.

- 8-E:** The commenter summarizes Impacts 4.4-1, 4.4-4, and 4.4-5 pertaining to biological resources and states that such impacts were identified as being potentially significant in the Draft EIR. The commenter also restates that cumulative impacts on biological resources were identified as potentially significant and unavoidable.

The statements provided summarize the impact findings of the Draft EIR and do not raise a specific question relative to CEQA, nor do they identify a substantive issue pertaining to the content or analysis provided in the Draft EIR. Revisions to the Draft EIR are not necessary as a result of this comment. However, the comments provided have been noted for the record.

- 8-F:** The commenter states the opinion that the project area was identified as a reserve for the desert tortoise and questions whether this condition was considered in the proposal to build a “solar power plant.”

As stated in Section 4.4, *Biological Resources*, of the Draft EIR, the project site is not located within an area designated as a reserve for the desert tortoise. The project area is located approximately 10 miles southwest of the Desert Tortoise Research Natural Area. The project area, at its closest point, is located approximately 16 miles southwest of federally designated Critical Habitat for desert tortoise at the Bureau of Land Management Fremont-Kramer Area of Critical Environmental Concern. Therefore, the project would not affect any such reserve. Revisions to the Draft EIR are not required in response to the comments provided.

- 8-G:** The commenter summarizes Impacts 4.7-5, 4.7-6, 4.7-7, 4.7-8, and 4.7-9 pertaining to cultural resources and states that such impacts were identified as potentially significant in the Draft EIR. The commenter also states that cumulative impacts on cultural resources were identified as significant and unavoidable in the Draft EIR.

The statements provided summarize the impact findings of the Draft EIR and do not raise a specific question relative to CEQA, nor identify a substantive issue pertaining to the content or analysis provided in the Draft EIR. Furthermore, the Draft EIR identifies cumulative impacts on cultural resources to be less than significant with mitigation. Revisions to the Draft EIR are not necessary as a result of this comment. However, the comments provided have been noted for the record. Refer also to Response 8-H, below.

- 8-H:** The commenter expresses concern regarding for the potential for the occurrence of desert soil erosion, liquefaction, and/or collapse.

Refer to Section 4.7, *Geology and Soils*, and Section 4.10, *Hydrology and Water Quality*, which address the potential for project construction or operations to result in adverse effects from erosion, liquefaction, and/or collapse, pursuant to CEQA requirements. In addition to project conformance with engineering design standards, applicable ordinances of the Kern County Building Code (Chapter 17.08) and California City Building Code, as well as all applicable International Building Code and California Building Code earthquake construction standards, including those relating to soil characteristics, the project would be subject to mitigation measures identified in the Draft EIR to reduce potential impacts to less than significant. It is not anticipated that such conditions would therefore affect surrounding landowners or other area residents. No revisions to the Draft EIR are required in response to the comment provided.

- 8-I:** The commenter summarizes Impacts 4.9-1, 4.9-2, 4.9-3, 4.9-5 pertaining to hazards and hazardous materials and states that such impacts were identified as potentially significant in the Draft EIR. The commenter also states that cumulative impacts relative to hazards and hazardous materials were identified as significant and unavoidable in the Draft EIR. The commenter expresses the opinion, based on the significant and unavoidable finding, that the project applicant and the County recognize the potential for area residents to experience unavoidable “damages to their families, their properties, and livelihood” as a result of project implementation.

The comments provided restate the significance findings for several impacts as analyzed in the Draft EIR. As indicated in Section 4.9, *Hazards and Hazardous Materials*, of the Draft EIR, the project would result in a potentially significant impact relative to the potential release of hazardous

materials into the environment from construction and/or operation activities. As identified in Section 4.9, all project-level impacts related to hazards and hazardous materials would be reduced to less than significant with the implementation of the mitigation measures identified.

As noted, when combined with other projects in the area, the project would contribute to a significant and unavoidable impact relative to impairment or interference with an adopted emergency response plan or emergency evacuation plan, as well as with the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, even with implementation of the mitigation measures proposed. However, mitigation proposed would reduce the project's potential to contribute to such significant and unavoidable effects and would minimize such impacts to the extent feasible.

The commenter's statements have been noted for the record. Revisions to the Draft EIR are not necessary as a result of the comments provided.

- 8-J:** The commenter states the opinion that the project may have the potential to result in long-term effects; effects on humans, animals, property values; and the environment that may not be realized until future years to come.

The commenter does not raise a specific issue of concern related to the "long-term effects" or effects on "humans...the animals, the plant life, and the environment" that can be responded to. However, the potential environmental effects of the proposed project are fully evaluated in Chapter 4 of the Draft EIR, and mitigation measures have been identified to reduce such impacts to the extent feasible, in conformance with CEQA requirements.

CEQA requires an analysis of physical impacts to the environment; it does not require an analysis of potential social and economic impacts, such as a project's potential effects on property values. Under CEQA, "[a]n economic or social change by itself shall not be considered a significant effect on the environment" (CEQA Guidelines, Sections 15131 and 15382). Effects analyzed under CEQA must be related to a physical change (CEQA Guidelines, Section 15358(b)). The evaluation in the Draft EIR is consistent with the guidance provided in Section 15131. No further response to the comments provided is required.

The County acknowledges receipt of the comments provided, and such information has been noted for the record. No revisions to the Draft EIR are necessary in response.

- 8-K:** The commenter references an article pertaining to bat and bird fatalities due to operation of wind turbine facilities.

This comment does not raise a substantive issue on the content of the Draft EIR. The project is a solar energy project and does not propose any wind energy facilities. The comments provided have been noted for the record; revisions to the Draft EIR are not necessary.

- 8-L:** The commenter states that the article indicates that with the assistance of dogs, a greater number of bat and bird fatalities from operation of wind turbine facilities have been identified than by human calculations alone.

This comment does not raise a substantive issue on the content of the Draft EIR. The project is a solar energy project and does not propose any wind energy facilities. The comments provided have been noted for the record; revisions to the Draft EIR are not necessary.

- 8-M:** The commenter suggests that the loss of habitat from the project may result in the loss of desert tortoise, (Mohave) ground squirrel, or Joshua trees.

As stated in Section 4.4, *Biological Resources*, of the Draft EIR, the project would have the potential to result in impacts to desert tortoise, (Mohave) ground squirrel, and Joshua tree species. Mitigation measures are proposed to reduce impacts to a level of less than significant, thereby minimizing adverse effects on such species and their habitat. No changes to the Draft EIR are necessary in response to the comment provided.

- 8-N:** The commenter states the opinion that such species (desert tortoise, (Mohave) ground squirrel, or Joshua trees) have been in existence “before us and should remain long after we’re gone.”

Refer to Response 8-M, above. This comment does not raise a substantive issue on the content of the Draft EIR. The comments provided have been noted for the record; revisions to the Draft EIR are not necessary.

- 8-O:** The commenter raises the issue of the loss of property value and potential project effects on the “future of Kern County,” and that potential effects on the environment, desert aesthetics, and “peace and tranquility” may occur if the proposed project is implemented.

Refer to Response 8-J, above.

- 8-P:** The commenter states the opinion that although mitigation was identified for the project, the desert character would remain affected by the proposed solar development.

The County acknowledges receipt of the comments provided, and such information has been noted for the record. This comment does not raise a substantive issue on the content of the Draft EIR; no revisions to the Draft EIR are necessary in response.

Comment Letter 9: Hernandez, Mary-Anne (August 9, 2021)

Letter to Mary-Anne Hernandez, August 9, 2021

From: [M.](#)
To: [Ronelle Candia](#)
Subject: Bellefield Solar Panel Project
Date: Monday, August 9, 2021 12:18:34 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Dear Ms Candia,

Re: EIR for the Bellefield Solar Project by 50L W 8ME LLC (8MINUTE E ERGY) (SCH#2021010168)

I am sending you two emails, this one has to do with an article regarding wind and solar panels. I was unable to include it in my first email.

Thank you for your assistance.

Mary-Anne Hernandez
APN 235-352-15
Tel: 323-573-4721

<https://www.bv.com/perspectives/impact-solar-energy-wildlife-emerging-environmental-issue>

9-A

Comment Letter 9: Hernandez, Mary-Anne (August 9, 2021)

Impact of Solar Energy on Wildlife Is an Emerging Environmental Issue



Publish date: Sunday, January 1, 2017

As increasing numbers of [renewable energy](#) generation facilities are installed in the U.S., the realities of their operational impacts have sometimes been surprising.

While renewables in general, and solar power in particular, have been touted as generally benign with regard to environmental impacts, some solar projects that have recently been placed in service reveal that mortal risks to wildlife, and especially avian species, are likely to demand additional consideration and management. This means new mitigation efforts are now being tested and developed.

Concentrating Solar and Solar Streamers

Large concentrating solar plants use “power towers” that consist of hundreds of thousands of computer-controlled mirrors to track the sun throughout the day, reflecting the sunlight to boilers at the tops of two or three approximately 450-foot tall towers. The concentrated sunlight heats the water in the boiler pipes to create superheated steam, which is then piped to a turbine to generate power.

Birds, insects, and bats that fly through the highly concentrated, high-temperature (800 to 1,000 degrees F) solar beams – sometimes called solar flux – at concentrating solar plants have been given the name “streamers” by operators of these facilities. When the insects, birds and bats fly through these beams, they are ignited in midair, creating a plume of smoke, or streamer. The animals may be killed by the heat, by the force of falling to the ground, or by a waiting predator.

A small number sustain injuries that they can recover from when they are discovered and taken to wildlife rehabilitation facilities. Less documented, but of equal concern, are the impacts on larger birds, such as raptors, that are powerful enough to fly away from a site even after being singed or otherwise injured by the solar beams. Most solar facilities conduct monitoring for wildlife within their site boundaries, but do not generally monitor outside the fence line to keep track of the impacts to individual animals that may fly beyond the site.

This apparently unforeseen impact is alarming because of the frequency of the streamer phenomenon that has been observed – an estimated one every two minutes – by U.S. Fish and Wildlife Service (USFWS) law enforcement personnel at a large concentrated solar project in California.

Comment Letter 9: Hernandez, Mary-Anne (August 9, 2021)



refers to the types of large-scale solar projects that cause these impacts as “mega-traps.”

“Lake Effects” of Large Solar Photovoltaic Projects

Solar photovoltaic projects consist of hundreds or thousands of solar panels that convert sunlight directly into electricity. Large solar fields such as those that have been built in the last several years in Southern California and the desert Southwest can fool birds into changing flight direction, sometimes during migration, to approach them because they appear to be lakes from a distance.

Many of the birds that have been killed at these large solar sites are waterbirds, which indicates that these birds fly to solar fields and realize too late in their descent that the solar panels are not water. The waterbirds then collide with the solar panels and are critically wounded or killed. Some waterbirds also have great difficulty taking off from non-water surfaces, which could leave them stranded in desert areas without food, water or shelter.

Potential Mitigation

Mitigation measures for the impacts of large solar PV projects are complicated by the variety of bird and other species being affected. Some approaches being tested include turning off or replacing bright lighting at the sites with LED lights to avoid attracting insects and use of netting to exclude birds from the panel area. Other measures being explored include removing vegetation that could be attracting birds to the project area; creating patterns on the panels that attempt to visually deter birds; using predator and distress call recordings; shutting down projects during key migration times; and using roosting and perching prevention.

Creation of habitat areas located outside large solar project areas, to draw birds away from the solar projects, has also been proposed.

Specific mitigation measures to reduce the number of streamer impacts from concentrating solar projects have been more challenging. To date, regulatory measures promoted or imposed by USFWS or other agencies have been largely dependent on current experience and knowledge, which is not extensive and varies considerably depending on location.

The USFWS has under consideration several approaches, including the possibility of a permit program (perhaps similar to that for eagles) that may limit the number of injuries or fatalities allowed. Meanwhile, several interest groups have advocated suspending operations of these large concentrating solar projects until effective mitigation measures can be determined and proven. One proposed concentrating solar project in California has already been withdrawn from consideration by the California Energy Commission, at least partially because of objections by local stakeholders about the impact on wildlife.

As the industry continues to monitor the collateral effects of solar energy, mitigation solutions are being tested in project design, planning and avian avoidance measures. Remedies for existing and future solar projects will require increased collaboration between design engineers, environmental specialists, developers and owners.

Subject Matter Expert

Dusty Miller: MillerDL1@bv.com

Related Perspectives

Staying Ahead of Mother Nature in your Design Basis

A shifting climate has created increased concerns for utilities and power infrastructure: hundred-year storms are now commonplace, Texas has experienced a record freeze, and hurricanes are becoming more destructive. These events are impacting our system in ways we

Comment Letter 9: Hernandez, Mary-Anne (August 9, 2021)


[Read more](#)


Turning Data into Action



How Data-Driven Solutions are Adding Scale and Speed to Environment Consulting



Future-proofing Gas Generation on the Road to Decarbonization



Powering Data Centers with Natural Gas: A Report on the Benefits of Natural Gas for Data Center Backup Power

Related Projects



Small Town Sees Big Opportunity from Distributed Generation and Battery Storage


Black & Veatch provided engineering, procurement and construction (EPC) services for a battery energy storage and solar project composed of a 650kWac monocrystalline photovoltaic (PV) plant utilizing a horizontal single-axis tracking system. The solar PV project utilizes 150 kW SMA string Inverters, which are tied to an owner-supplied 1 MVA step-up transformer.




Maximising environmental and social value through innovative integration of landscape design, natural capital accounting and interactive mapping

With climate change placing increasing pressure on budgets for flood alleviation schemes, and other measures to increase resilience, it is vital clients can access innovative funding models to ensure communities are protected. It's equally vital that such projects engage fully with the people they protect and create a legacy that provides multiple, sustainable benefits for the community.


Comment Letter 9: Hernandez, Mary-Anne (August 9, 2021)


BLACK & VEATCH
EMPLOYEE-OWNED




Wetlands Project Brings Wildlife Enthusiasts to Delaware

Naturalists are now able to enjoy bird-watching at a formerly abandoned facility site in Delaware after a comprehensive remediation effort, thanks to Black & Veatch's focus on long-term sustainability and natural resource management for all living creatures in the Yorklyn Valley region.



New Ulu Pandan Demonstration Plant Sets the Global Standard for Water Innovation

When PUB, Singapore's National Water Agency, set out to build the Tuas Water Reclamation Plant, it did so with the goal of creating the most energy-efficient MBR in the world. To achieve this, PUB needed a comprehensive solution that would be a beacon of behavior in the global



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Response to Letter 9: Hernandez, Mary-Anne (August 9, 2021)

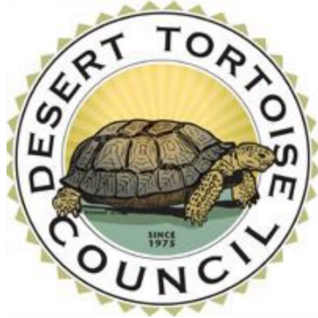
- 9-A:** The commenter indicates that she has provided two letters of comment; the subject letter provides reference to an article “regarding wind and solar panels.”

The article referenced (authored by a member of an international engineering/consulting/construction firm) pertains to potential effects that solar development projects may have on wildlife. The article discusses potential effects of concentrated solar voltaic (CPV) technology that uses mirrors to track the sun, reflect the sunlight to towers to create “superheated steam,” and then pipe such steam to a turbine to generate power, with some adverse effects on wildlife occurring due to animals being harmed or killed by the heat produced or other related effects from operation. The solar technology discussed in this article is not the technology being proposed for the Bellefield Solar project. Additionally, the article addresses the potential “lake effect,” wherein wildlife (birds) mistake a solar field for a water body and may be wounded or killed via bird strikes. The article identifies various measures to mitigate or avoid such potential effects on wildlife.

The County acknowledges receipt of the comments provided and such information has been noted for the record. However, the commenter does not provide any specific comments relative to the project, nor raise a substantive issue on the content of the Draft EIR or issues relative to CEQA. No revisions to the Draft EIR are necessary in response to the information received.

Comment Letter 10: Desert Tortoise Council, Edward L. LaRue, Jr., M.S., Ecosystems Advisory Committee, Chairperson (August 16, 2021)

Letter to Desert Tortoise Council, August 16, 2021



DESERT TORTOISE COUNCIL

4654 East Avenue S #257B
Palmdale, California 93552

www.deserttortoise.org

eac@deserttortoise.org

Via email only

16 August 2021

ATTN: Ronelle Candia, Supervising Planner
Kern County Planning and Natural Resources Department
2700 "M" Street, Suite 100, Bakersfield, CA 93301
Phone: (661) 862-8997
E-mail: candiar@kerncounty.com

RE: Draft Environmental Impact Report for Bellefield Solar Project by 50LW 8ME LLC
(8Minute Energy) (PP20403)

Dear Ms. Candia,

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

10-A

We appreciate this opportunity to provide comments on the above-referenced project, and that Kern County contacted the Council directly with the opportunity to comment on this project. Given the location of the proposed project in habitats occupied by Mojave desert tortoise (*Gopherus agassizii*) (synonymous with Agassiz's desert tortoise), our comments pertain to enhancing protection of this species during activities authorized by Kern County Planning and Natural Resources Department (Kern County). Please accept, carefully review, and include in the relevant project file the Council's following comments and attachments for the proposed project. Also, we incorporate by reference our 17-page comment letter on the Initial Study for this project that was submitted on February 15, 2021 (Desert Tortoise Council 2021).

10-B

Desert Tortoise Council/Comments/Bellefield Solar Project.8-16-2021

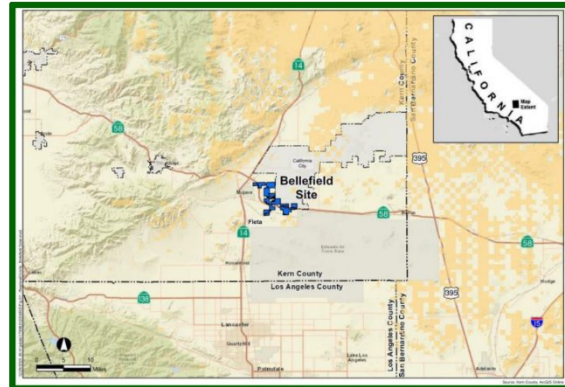
1

Comment Letter 10: Desert Tortoise Council, Edward L. LaRue, Jr., M.S., Ecosystems Advisory Committee, Chairperson (August 16, 2021)

Unless otherwise noted or referenced, all page numbers pertain to the Draft Environmental Impact Report (Draft EIR) dated July 2021. The unpaginated Notice of Availability (NOA) provides the following project description and location: “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 infrastructure necessary to generate up to 1,500 megawatts of renewable energy and 1,500 megawatt hours of energy storage capacity on approximately 8,371 acres of privately-owned land. The project site is located east of the community of Mojave and the Mojave Air and Space Port Airport, straddling State Route (SR) 58, and is just west and south of the Hyundai Proving Ground.”

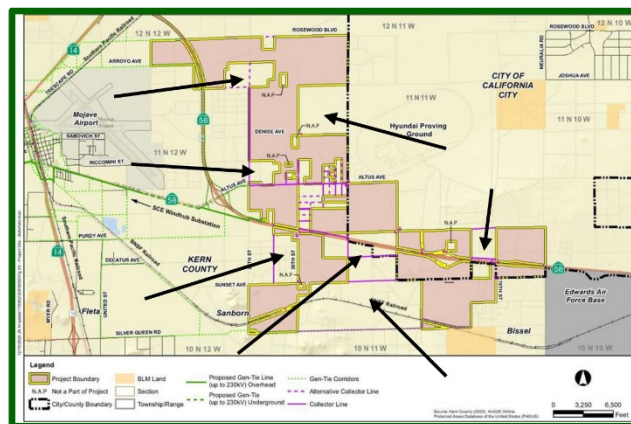
10-C

Unlike many solar facilities where the arrays are contiguous, this one is relatively dispersed over a large area, as shown in the site map from the unpaginated NOA. So, although the footprint of the direct impact is reported as being 8,371 acres, the dispersed nature of the project will have both direct and indirect impacts over an area much larger than this acreage, which is the “action area.”



10-D

Though not surrounded by the project (depicted by pink polygons below), we expect biological resources in the adjacent, yellow-colored areas (indicated by arrows) will be directly and indirectly impacted:



10-E

Desert Tortoise Council/Comments/Bellefield Solar Project.8-16-2021

2

Comment Letter 10: Desert Tortoise Council, Edward L. LaRue, Jr., M.S., Ecosystems Advisory Committee, Chairperson (August 16, 2021)

The format for our comments that follow is to cite the page number from the Draft EIR, provide the verbatim statement from that page in italics, then follow that with our specific comments and recommendations.

Page 1-1-54, MM 4.4-9KC.c from Table 1-7: *“Clearance surveys shall adhere to the current United States Fish and Wildlife Service clearance survey protocols described in the Desert Tortoise Field Manual, including a minimum of two clearance passes to be completed after desert tortoise-proof fencing is installed, which shall coincide with heightened desert tortoise activity from late March through May and September through October.”* For clarification, please be sure that the proponent realizes that the site is not considered to be clear until no tortoises are found during two consecutive surveys. This means that if a tortoise is found on the third survey of the site, two subsequent surveys where no tortoises are found will be required. This is particularly important where hatchling and small subadult tortoises may be missed by even experienced, conscientious biologists, particularly since egg shell fragments were found by EnviroPlus Consulting. Note that this and the next few comments also pertain to Section 4.4 in Table 1-7, which reiterates all the same measures for Biological Resources. So, any changes made to this section in the Final EIR should also apply to those measures listed on pages 1-1-127 through 1-1-147.

10-F

10-G

10-H

Page 1-1-54, MM 4.4-9KC.c from Table 1-7: *“The Designated Biologist(s) shall perform pre-activity surveys for desert tortoise and shall remain on-site daily until the construction period ends or exclusion fencing has been installed to preclude desert tortoises from entering a given work area (work area is completely enclosed with exclusionary fence).”* We ask that this provision be supplemented with a statement like the following: *“The Designated Biologist will remain available even after the fence is installed and be called to the site if a tortoise or Mohave ground squirrel is found inside the fence, emphasizing in the tortoise awareness program that only agency-authorized biologists, not construction workers, are allowed to handle tortoises. The Designated Biologist shall monitor the exclusionary fence on a weekly basis after its installation to ensure its integrity and function are maintained until the end of construction.”* These recommendations are intended to supplement related protections described in MM 4.4-9KC.d.

10-I

Page 1-1-55, MM 4.4-9KC.d from Table 1-7: *“If passive relocation is not possible, desert tortoise and/or Mohave ground squirrel may also be translocated in accordance with an United States Fish and Wildlife Service and/or California Department of Fish and Wildlife approved Translocation Plan.”* We were unable to find a formal translocation plan among the documents provided by Kern County. Even so, we note that recent agency-approved translocation plans have failed to protect displaced tortoises from predators that have decimated those tortoise populations. For example, about a third of the 139 tortoises recently displaced from the Yellow Pine Solar Project in southern Nevada were lost to badger predation, which was unforeseen by the state and federal resource agencies approving that translocation plan.

10-J

It is essential that the translocation plan for this project analyze recent success and failures associated with the expansions of Fort Irwin National Training Center and Twentynine Palms Marine Corps Air-to-Ground Combat Center, and numerous solar projects constructed over the past five-to-ten years (including Yellow Pine Solar Project in southern Nevada and the solar towers in Ivanpah Valley, near Stateline, Nevada) displacing thousands of tortoises to avoid known

10-K

Comment Letter 10: Desert Tortoise Council, Edward L. LaRue, Jr., M.S., Ecosystems Advisory Committee, Chairperson (August 16, 2021)

problems associated with those efforts. Given the results from Yellow Pine, it is important to survey for the presence and density of tortoise predators in and adjacent to the translocation area. The likelihood for increased predation on translocated tortoises should be analyzed as part of the translocation plan, and proactive measures implemented to assure that translocated tortoises are not lost to predation in the first few years following translocation. It is also important to identify proponent-owned lands or Bureau of Land Management (BLM) lands that are intended to receive tortoises “passively” translocated.

10-K
cont'd

10-L

10-M

10-N

Page 1-1-55, MM 4.4-9KC.f from Table 1-7: “*Work outside areas with desert tortoise exclusion fencing shall only occur during daylight hours where desert tortoise are determined to be present*” (emphasis added in regular font). The final clause suggests that there would be preconstruction surveys in unfenced areas and that a biologist would be required to be present if evidence of tortoises is found. Given the mobility of tortoises, we recommend that ALL activities outside the exclusion fences should be monitored even where no evidence of tortoises is found.

10-O

Page 1-1-57, MM 4.4-9KC.j from Table 1-7: “*Intentional killing or collection of either plant or wildlife species, including listed species, in the project site and surrounding areas shall be prohibited*” (emphasis added in regular font). Certainly, everyone understands that desert tortoise and Mohave ground squirrels are protected because they are listed species. We suspect that this statement should read “unlisted species,” and include common species like snakes, and particularly rattlesnakes, which are likely to be killed if not expressly prohibited.

10-P

Page 4.4-4, Protocol Surveys: The Council does not agree with the determination given in this section that “*The ‘action area is synonymous with the previously defined ‘project area.’*” As stated above, we believe that there will be indirect impacts and perhaps direct impacts to adjacent habitats signified by the arrows depicted on page 2 of this letter. We note for example that there is no discussion on the likely “heat sink” effects of this project on adjacent lands not included within the “project area.”

10-Q

10-R

We ask that the Final EIR provide supplemental information about the potential heat sink impacts to tortoises and other species, document findings of recently-constructed solar projects in the region, and reconsider if it is prudent to restrict the action area to only the delineated project area. We understand that 8Minute Energy has developed thousands of acres of desert habitats within 10 miles of this proposed project, and that they have been asked to perform studies that document ancillary impacts to adjacent habitats. However, no results of these studies are published in this Draft EIR, leading us to conclude that no studies have been performed. Please clarify if any indirect impact studies have been performed by 8Minute Energy in the region, and if there have been any, please summarize the results in pertinent sections of the Final EIR, especially with respect to the tortoise.

10-S

10-T

10-U

10-V

Page 4.4-6, Mohave ground squirrel (MGS): We contend that the discussion given in this section is inadequate to determine that MGS are absent from the subject property. We know for example that MGS were captured in 2020 at the proposed Kudu site, located approximately six miles north of the northern boundary of the subject property (see #4 in Figure 3-21 on page 3-55 of the Draft EIR), which is coincidentally being planned for solar development by 8Minute Energy. Given these recent, nearby results alone, in the absence of focal MGS surveys [CDFG 2003 (revised

10-W

10-X

Comment Letter 10: Desert Tortoise Council, Edward L. LaRue, Jr., M.S., Ecosystems Advisory Committee, Chairperson (August 16, 2021)

2010)], the proponent must assume presence and mitigate accordingly, or complete focal surveys and document MGS absence. Equally important, when the proponent seeks federal and state incidental take permits, compensatory habitats must be occupied by and secured and managed in perpetuity for both tortoises and MGS (see our comments pertaining to page 4.4-1). It is also appropriate in the Final EIR to revise the information given in the first paragraph at the top of page 4.4-7, which fails to acknowledge the proponent's focal studies last year that detected MGS, erroneously stating it has been 17 years since MGS have been detected in the region.

10-X
cont'd

10-Y

10-Z

Page 4.4-1, Desert Renewable Energy Conservation Plan (DRECP): The discussion given here is a bit truncated and the following conclusion misleading: *"No State or local government has adopted the DRECP for application to private lands* and the DRECP therefore does not apply to the project site" (emphasis added in regular font). Since the record of decision for the DRECP (BLM 2016) significantly altered the protection of desert tortoises and MGS as previously provided for in the record of decision for the West Mojave Plan (BLM 2006), in mitigating impacts, the proponent will undoubtedly need to acquire compensation habitats within conservation areas codified by the DRECP. So, although the first part of the statement is accurate, regional conservation delineated and defined by the DRECP will undoubtedly apply to mitigating impacts associated with project development.

10-AA

In addition to this clarification in the Final EIR, it is appropriate that Kern County also map the location of this project relative to designated Development Focus Areas (DFAs) identified in the DRECP, which encompass both BLM and private lands. It also seems appropriate to augment the cumulative effects analysis in Section 3.8 to show how the DRECP does or does not promote solar development in the region surrounding the subject property, which would be best depicted in a map.

10-AB

10-AC

Page 4.4-0, Mohave ground squirrel: This information needs to be updated. For example, we know that Sundance Biology trapped the Hyundai-Kia Proving Grounds in 2020, which is not reflected in this discussion in the Draft EIR. Although no MGS were captured in 2020 (Steve Boland, personal communication on 8/13/2021), absence may have been in response to a wet year when MGS are apparently less detectable than during dry years (CMBC 2019). In any case, the information presented is not accurate and should include the results of the recent Kudu and Hyundai-Kia surveys. Since conclusions that MGS are absent are not supported by project-specific data, the proponent should implement current standards, which are that the proponent must either trap and document absence or mitigate as if MGS are present.

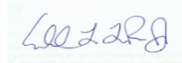
10-AD

We appreciate this opportunity to provide input and trust that our comments will help protect tortoises during any authorized project activities. Herein, we ask that the Desert Tortoise Council be identified as an Affected Interest for this and all other Kern County projects that may affect species of desert tortoises, and that any subsequent environmental documentation for this particular project is provided to us at the contact information listed above. Additionally, we ask that you respond in an email that you have received this comment letter so we can be sure our concerns have been registered with the appropriate personnel and office for this project.

10-AE

Comment Letter 10: Desert Tortoise Council, Edward L. LaRue, Jr., M.S., Ecosystems Advisory Committee, Chairperson (August 16, 2021)

Regards,



Edward L. LaRue, Jr., M.S.
Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

cc: California State Clearinghouse, state.clearinghouse@opr.ca.gov

Literature Cited

[CDFW] California Department of Fish and Game. 2003 (revised 2010). Mohave ground squirrel survey guidelines. Unpublished guidelines produced by CDFG (currently CDFW = California Department of Fish and Wildlife). Sacramento, CA.

[CMBC] Circle Mountain Biological Consultants, Inc. 2019. Cuddeback-Kramer Preserve: 2019 Annual Report, San Bernardino County, California. Unpublished annual report prepared by Ed LaRue for Mojave Environmental Holdings, LLC on behalf of CDFW and USFWS. Wrightwood, CA.

[Council] Desert Tortoise Council. 2021. Initial Study and Notice of Preparation of a Draft Environmental Impact Report for the Bellefield Solar Project, Kern County, California. 17 pp.

[BLM] U.S. Bureau of Land Management. 2006. Record of Decision: West Mojave Plan, an Amendment to the California Desert Conservation Area Plan 1980. Dated March 2006. Sacramento, CA.

U.S. Bureau of Land Management. 2016. Record of Decision for the Land Use Plan Amendment to the California Desert Conservation Plan, Bishop Resource Management Plan, and Bakersfield Resource Management Plan for the Desert Renewable Energy Conservation Plan (DRECP). Dated September 2016. Sacramento, CA.

10-AF

Response to Letter 10: Desert Tortoise Council, Edward L. LaRue, Jr., M.S., Ecosystems Advisory Committee, Chairperson (August 16, 2021)

10-A: This is an introductory comment and does not address the adequacy of the Draft EIR. As such, no further response is necessary.

10-B: The comments provided in this comment letter, and corresponding responses, are included in the Final EIR for the proposed project. The Final EIR will be considered by the Planning Commission and Board of Supervisors as part of their consideration of approval of the proposed project.

Table 2-1 (see EIR pages 2-9 and 2-10) provide a summary of comments received from Desert Tortoise Council on the NOP. These comments were considered as part of the scope and analysis of the Draft EIR.

10-C: This comment summarizes the overall project characteristics and does not address the adequacy of the Draft EIR. As such, no further response is necessary.

10-D: The project footprint, which would be the extent of direct ground disturbance is defined as the project boundary, which is depicted in Figure 3-2: Project Site Boundaries and various figures in the Draft EIR. The biological resources evaluation provided in Section 4.4 Biological Resources evaluates the projects potential direct and indirect impacts to biological resources as a result of implementation of the project. For example, protocol burrowing owl surveys included a 150-meter wide buffer survey area around the project site. Further, various potential indirect impacts, which would include areas surrounding the project site include increased predator depredation, increased perching sites, trash, provision of new perching sites and temporarily ponding water from solar panel cleaning and in the proposed infiltration basins, as well as potential food items in unsecured trash containers. New project development can also increase the presence of other desert tortoise predators such as coyote, badger, and domestic or feral dogs. Such potential impacts to DT would be considered significant. Exclusionary fencing will be required which will avoid impacts to adjacent areas to sensitive species.

To the degree there are other indirect impacts in areas surrounding the project site, these impacts are addressed in the biological resources cumulative Impact analysis on EIR page 4.4-43.

10-E: Please refer to responses to comment 10-D regarding potential direct and indirect impacts of the project.

10-F: The County acknowledges the requirements of the survey protocols.

10-G: In accordance with CEQA Guideline 15097, the County will adopt a Mitigation Monitoring and Reporting Plan (MMRP). The MMRP will reflect any changes and refinements to mitigation measures as a result of responses to comments on the Draft EIR, and as included in the Final EIR.

10-H: Mitigation Measure MM 4.4-9KC(c) has been revised to include the additional monitoring provision suggested in this comment as follows:

- c. Following the construction of exclusion fencing around the solar facility perimeters, clearance surveys shall be conducted by the Lead Biologist to ensure that no desert tortoises, Mohave ground squirrels, or other listed wildlife species are trapped within the fenced area. The Lead Biologist may be assisted by biological monitors under the supervision of the Lead Biologist. The clearance surveys shall be conducted no more than

30 days prior to ground disturbing activities associated with construction, O&M, or decommissioning. Clearance surveys shall adhere to the current United States Fish and Wildlife Service clearance survey protocols described in the Desert Tortoise Field Manual, including a minimum of two clearance passes to be completed after desert tortoise-proof fencing is installed, which shall coincide with heightened desert tortoise activity from late March through May and September through October or as outlined in the Project's Habitat Conservation Plan or Incidental Take Permit. The Designated Biologist(s) shall perform pre activity surveys for desert tortoise and shall remain on-site daily until the construction period ends or exclusion fencing has been installed to preclude desert tortoises from entering a given work area (work area is completely enclosed with exclusionary fence). The Designated Biologist will remain available even after the fence is installed and be called to the site if a tortoise or Mohave ground squirrel is found inside the fence, emphasizing in the tortoise awareness program that only agency-authorized biologists, not construction workers, are allowed to handle tortoises. The Designated Biologist shall monitor the exclusionary fence on a weekly basis after its installation to ensure its integrity and function are maintained until the end of construction. United States Fish and Wildlife Service and California Department of Fish and Wildlife may impose modified or additional fencing requirements in the project's final 2081 Permit and/or Habitat Conservation Plan, if required.

It should be noted, and as stated in item "c" above that final monitoring requirements will be established through the Individual Take Permit process with the U.S. Fish and Wildlife Service.

- 10-I:** The desert tortoise translocation plan is currently in the process of review by the U.S. Fish and Wildlife Service. The translocation plan is a component of the Habitat Conservation Plan (HCP) application and corresponding Individual Take Permit authorization.
- 10-J:** These comments are acknowledged. It will be the responsibility of the U.S. Fish and Wildlife Service to review the translocation plan and determine whether the plan is appropriate and adequate to compensate for proposed take of the desert tortoise.
- 10-K:** The draft translocation plan proposed recipient sites are located in the Superior-Cronese ACEC.
- 10-L:** The intent of the language in the mitigation measure identified by the comment is to monitor all areas (regardless of whether or not evidence of tortoise is found). Further, Mitigation Measures MM 4.4-1KC and MM 4.4-7KC provide for general monitoring requirements for all of the project area, which would also mitigate any potential impacts during construction.
- 10-M:** Mitigation Measure is intended to address both listed and not listed species. Mitigation Measure 4.4-10KCj has been modified as follows:
- j. Intentional killing or collection of either plant or wildlife species, including both listed species and not listed species, in the project site and surrounding areas shall be prohibited. The Lead Biologist, wildlife and resource agency representatives and Kern County Planning and Natural Resources Department shall be notified of any such occurrences within 24 hours.
- 10-N:** Please refer to responses to comment 10-G regarding off-site impacts.

Please refer to response to comment 10-O regarding heat sink.

- 10-O:** EIR page 4.9-4 “Increase in Ambient Temperatures” addresses potential “heat island” effects associated with the proposed project. As described on EIR pages 4.9-4 and 4.9-5, Fthenakis and Yu from Columbia University and Brookhaven National Laboratory combined models with field data to determine the extent to which PV facilities altered ambient air temperatures (Fthenakis and Yu 2013). Temperatures surrounding the facility were found to cool completely at night and the researchers determined that the PV facility “did not induce a day-after-day increase in ambient temperatures, and therefore, adverse micro-climate changes from a potential PV plant are not a concern.” This study also concluded that increases in temperatures completely dissipated approximately 5-18 meters above the facility and that thermal energy “promptly dissipated” with distance from the facility. Remote sensing research produced by Edalat and Stephen from the University of Nevada of Las Vegas in 2017 supports the conclusions of Fthenakis and Yu (2013), demonstrating that land surface temperatures surrounding a solar facility were not significantly impacted by the solar facility (Edalat and Stephen 2017).

With consideration of these findings, it is not anticipated that the project would indirectly impact species through a “heat island” effect.

- 10-P:** EIR Table 4.4-3 Special-Status Wildlife with the Potential to Occur Within the Project Area, identifies that the project site contains “A mix of appropriate habitat and degraded habitats along with known occurrences near the project. Potential for dispersing juveniles to occupy habitat.” Presence of the Mohave ground squirrel is assumed on the project site. As indicated in, and required by Mitigation Measure MM 4.4-15KC(a), “The project operator has filed for an Incidental Take Permit for Mohave ground squirrel and desert tortoise with California Department of Fish and Wildlife, and a Habitat Conservation Plan with the United States Fish and Wildlife Service for desert tortoise.”

The text on EIR page 4.4-6 has been updated to reflect more recent observation of Mohave ground squirrel in the general vicinity of the project site as follows:

The project area is located on the western edge of the geographic range of MGS. The CNDDB includes two records of visual observations of this species several miles north of Mojave, one in 1987 (Occurrence #284) and one in 1998 (Occurrence #300) (EPC 2020a). More recent surveys associated with the Kudu Solar project, as well as surveys conducted at the Hyundai-Kia Proving Grounds have resulted in observations of MGS. ~~The only other evidence of MGS presence in this area was a single individual observed and trapped in 2002 at the site of the Hyundai Kia Proving Grounds east of Mojave. Multiple live trapping surveys have been conducted at six grids on the Hyundai Kia Proving Grounds property since 2002, but no MGS have been detected.~~ Protocol trapping surveys have been carried out in recent years at more than 50 sites to the west and south of Mojave, but no MGS have been captured associated with those surveys.

In addition, camera trapping was conducted in 2011 and 2014 at 11 sites on BLM lands in the vicinity of the project area and failed to detect the species. ~~The only recent MGS records in the region are at two sites approximately 6 miles to the east.~~

- 10-Q:** As required by Mitigation Measure MM 4.4-15KC, “The project proponent shall mitigate for permanent impacts to suitable DT and MGS habitat, through an approved mitigation bank, in-lieu fee program, or other mechanism accepted by California Department of Fish and Wildlife and/or United States Fish and Wildlife Service, as outlined in each agencies respective permit.”

10-R: Please refer to response to comment 10-P.

10-S: Comment noted. Please see response to comment 10-K.

The statement on EIR page 4.4-1 is correct in that the DRECP does not apply to the project site. However, it is acknowledged that compensatory mitigation lands may be located off-site in the DRECP. The text on EIR page 4.4-1 has been revised as follows:

No State or local government has adopted the DRECP for application to private lands and the DRECP therefore does not apply to the project site. However, it should be noted that compensatory mitigation for the proposed project may occur off-site within the DRECP.

10-T: The DRECP is focused on public lands, and because the proposed Bellefield Solar project is not located on public lands it is not subject to the DRECP, and therefore, is not mapped in the EIR.

10-U: Cumulative impacts with respect to implementation of the DRECP were addressed in the DRECP EIS. The BLM signed the Record of Decision approving its Land Use Plan Amendment on September 14, 2016, completing Phase 1 of the DRECP. The BLM Plan Amendment covers the 10 million acres of BLM managed lands in the DRECP plan area and supports the overall renewable energy and conservation goals of the DRECP. Phase 2 of the DRECP would apply to private lands and focus on better aligning local, State, and federal renewable energy development and conservation plans, policies, and goals. It includes building off of the Renewable Energy Conservation Planning Grants (RECPG) that were awarded by the California Energy Commission to counties in the plan area (BLM 2016). No State or local government has adopted the DRECP for application to private lands and the DRECP therefore does not apply to the project site. The Draft EIR otherwise provides a full evaluation of potential cumulative impacts associated with the project in compliance with CEQA.

10-V: Please refer to response to comment 10-P.

10-W: Comment noted.

10-X: This comment cites references made in the comment letter. No additional response is required.

Comment Letter 11: Kern Audubon Society, Franklin Bedard, Conservation Chair, and Garry George, Director, Clean Energy Initiative (August 16, 2021)

Submitted by: Kern Audubon Society, Franklin Bedard, Conservation Chair



Kern Audubon Society
Attn: Franklin Bedard
P.O. Box 3581
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August 16, 2021

submitted electronically

Ronelle Candia, Supervising Planner
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**Subject: Response comments to a Draft Environmental Impact Report
The Bellefield Solar Project (Project), by 50LW 8ME LLC
(SCH #2021010168)**

Dear Ms Candia:

The Kern Audubon Society (KAS) and Audubon (National Audubon Society) interested parties, received a notice concerning a Draft Environmental Impact Report (DEIR) from the Kern County Planning and Natural Resources Department (County) for the above referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

KAS was founded in Bakersfield, CA in 1973 and incorporated in 1979. KAS is a thriving environmental organization in Kern County, and the chapter continually plans educational projects for the community. KAS conducts regular program meetings and field trips to both common and unique habitats in California. KAS would like to thank you for the opportunity to provide comments concerning the scope and content of the environmental analysis of the Project that may affect the diverse California wildlife within the Project's footprint and its cumulative impacts in the region.

Audubon protects birds and the places they need, today and tomorrow. Audubon works throughout the Americas using science, advocacy, education, and on-the-ground conservation. State programs, nature

11-A

Comment Letter 11: Kern Audubon Society, Franklin Bedard, Conservation Chair, and Garry George, Director, Clean Energy Initiative (August 16, 2021)

centers, chapters, and partners give Audubon an unparalleled wingspan that reaches millions of people each year to inform, inspire, and unite diverse communities in conservation action. A nonprofit conservation organization since 1905, Audubon believes in a world in which people and wildlife thrive.

11-A
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Thank you for the opportunity to provide comments concerning the environmental analysis of the Project that may affect the diverse California wildlife within the Project's footprint and its cumulative impacts in the region.

The DEIR for the proposed 8,371 acre project located in portions of unincorporated Kern County and the City of California City should identify and evaluate potential adverse impacts to protected species that may utilize the disturbed and undeveloped Joshua tree and desert saltbush scrub areas proposed for the Project activities. These undeveloped areas have potential to support desert kit fox, American badger, Western burrowing owl, Swainson's hawk, loggerhead shrike, Prairie falcon, Mohave ground squirrel, and desert tortoise. The biological site evaluation and all pre-construction biological surveys should be performed by qualified biological consultants using the appropriate survey protocols as established by both state and federal wildlife agencies.

It is imperative that all biological surveys be performed during the appropriate time of year to discern species presence for this eco-region. This is especially true for the desert tortoise and Mohave ground squirrel. Presence/absence surveys for both desert tortoise and Mohave ground squirrel can be negatively influenced by seasonal drought conditions so it is imperative that surveys be performed during years exhibiting average winter precipitation. Biological consultants should evaluate the Project's potential to subsidize and support local raven populations that depredate the endangered desert tortoises of the Mojave Desert region. Ravens represent a major threat to long term tortoise recovery in the Mojave. The close proximity of the Desert Tortoise Preserve makes raven management a major concern. Due to the size of this Project and its proximity to other large solar developments cumulative impacts to sensitive biological resources requires more than a perfunctory analysis of said impacts. Of additional concern is the Project's location along the eastern edge of the Sierra flyway, a major migratory path for millions of migrating birds every year.

11-B

Comments and Recommendations.

KAS offers the following comments and recommendations to assist County in adequately mitigating the Project's significant, or potentially significant, direct and indirect impacts on biological resources.

11-C

Project Impacts. Section 4.4-1: Special Status Species

Swainson's hawk. Protocol level surveys for Swainson's hawk (SWHA) nests are needed within the Joshua trees and/or other large non-native trees occurring in the Project site. The Western Joshua Tree Census (Table 4.4-4) notes 266 Joshua trees within the Project that are greater than five meters, all potential SWHA nesting sites. Such surveys would be helpful not only for the Project but also for CDFW and for NGOs engaged in conservation of SWHA in the Mojave and Antelope Valley areas. The absence of agricultural operations, specifically alfalfa cultivation, does not preclude the potential of SWHA nesting within these larger trees. All measures implemented to minimize and mitigate for the impacts to SWHA on the project should be reported as part of the Avian Report outlined in MM 4.4-19KC and MM4.4-19CC.

11-D

Comment Letter 11: Kern Audubon Society, Franklin Bedard, Conservation Chair, and Garry George, Director, Clean Energy Initiative (August 16, 2021)

Prairie falcon. Prairie falcons (*Falco mexicanus*) were observed in flight during site surveys, but no nesting sites were noted. KAS is aware of a nearby long term falcon eyrie that has successfully been utilized to fledge numerous prairie falcons over the years. The site (see attachment) is located a short distance south of the Project near De Stazo Hill, south of Silver Queen Road and within line of site of the Project. The April 2021 publication of the Birds of Conservation Concern 2021 (BCC) by the USFWS states that the Prairie falcon deserves conservation attention to keep from becoming listed by FWS as threatened or endangered. The philosophy underlying the BCC report is that proactive bird conservation is critical at a time when continued human impacts will be intensified by effects of a changing climate. By investing in actions for designated BCC taxa, further degradation to environments can be prevented, the odds for successful long-term conservation can be improved, and the complexities and costs associated with federal ESA listing can be avoided. Proactive conservation is recognized as being more cost-effective than the recovery efforts required once a bird is listed under the ESA. The close proximity of this eyrie is of concern as Project activities may cause interference with reproductive success and potential nest abandonment. Loss of foraging habitat and the installation of high fencing may well increase mortality of adults and fledglings that use this eyrie. All measures implemented to minimize and mitigate for the impacts to Prairie falcon on the project should be reported as part of the Avian Report outlined in MM 4.4-19KC and MM4.4-19CC.

11-E

Burrowing Owl. Burrowing owls (BUOW) were observed and recorded at five locations in the Project site during surveys and BUOW sign was also present. The project site provides suitable habitat for this species, including for nesting and wintering, and has the potential to support this species year-round. Therefore, it is presumed that there is a potential for BUOW to be present on the project site during their nesting period.

The BUOW is a California Species of Special Concern and is protected by California Fish and Game Code (FGC) Section 3503 *et seq.* and the federal Migratory Bird Treaty Act. BUOWs and their sign were recorded within the Project. The BUOW is a year-round resident throughout much of the state and is often considered a sedentary species (e.g., Thomsen 1971). A large proportion of adult BUOW show strong fidelity to their nest site from year to year. In California, nest site fidelity rates range from 32% to 50% in large grasslands (Catlin 2004, Catlin et al. 2005).

11-F

Direct impacts to BUOW could result from construction activities, including death or injury to individuals, displacement and loss of territory, disruption of breeding/nesting activities, crushing of burrows, viable eggs and chicks, and other impacts.

Indirect impacts could include reduced foraging areas, increased incidence of agitation, increase potential establishment of invasive species, and other impacts.

The Project requires the implementation of BUOW specific mitigation measures MM4.4-1KC through MM4.4-8KC to ensure that impacts to BUOW be reduced to “less than significant” level. Mitigation measures should require the entire suite of mitigation measures specific to the presence of BUOW based on the CDFW 2012 Staff Report on Burrowing Owl Mitigation to ensure potential impacts will be avoided

Comment Letter 11: Kern Audubon Society, Franklin Bedard, Conservation Chair, and Garry George, Director, Clean Energy Initiative (August 16, 2021)

or minimized. Any additional mitigation should be done in consultation with CDFW. All measures implemented to minimize and mitigate for the impacts to BUOW on the project should be reported as part of the Avian Report outlined in MM 4.4-19KC and MM4.4-19CC.

KAS and Audubon appreciates the opportunity to comment on the Bellefield Solar Project DEIR and to assist the County in identifying Project impacts on sensitive biological resources endemic to the Kern County Mojave Desert area.

Sincerely,

Franklin Bedard
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Kern Audubon Society
P.O. Box 3581
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Garry George
Director, Clean Energy Initiative
Audubon
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Attachment: Map – brown butte eyrie.

REFERENCES:

CDFG, 2012. Staff Report on Burrowing Owl Mitigation. California Department of Fish and Game, March 2012.

Catlin, D.H., 2004. Factors affecting within-season and between-season breeding dispersal of Burrowing Owls in California. M.S. thesis. Oregon State Univ., Corvallis.

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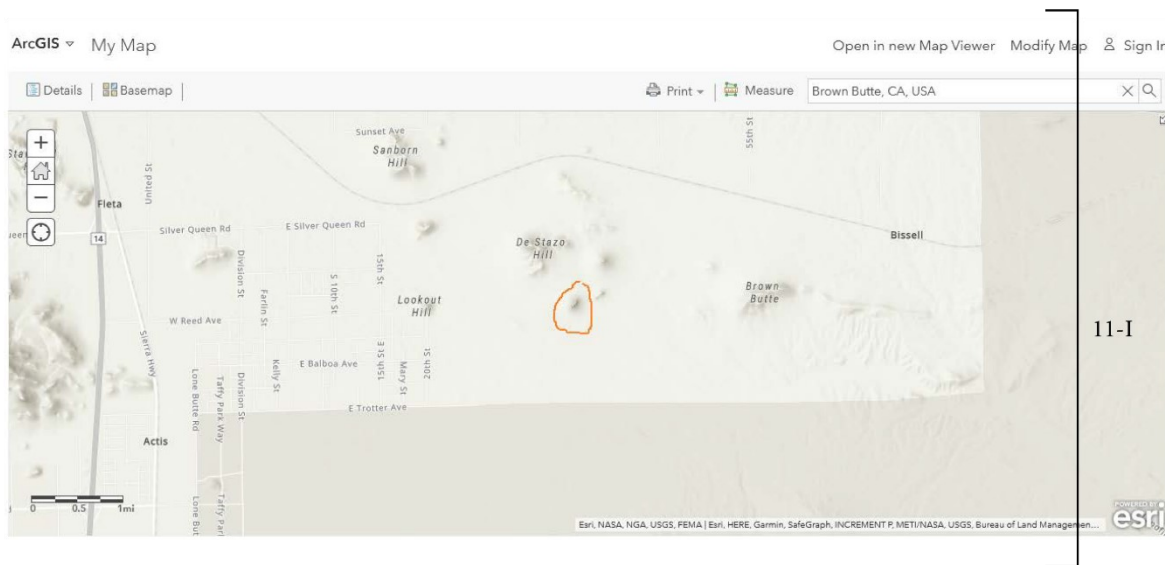
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11-F
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11-G

11-H

Comment Letter 11: Kern Audubon Society, Franklin Bedard, Conservation Chair, and Garry George, Director, Clean Energy Initiative (August 16, 2021)



Response to Letter 11: Kern Audubon Society, Franklin Bedard, Conservation Chair, and Garry George, Director, Clean Energy Initiative (August 16, 2021)

11-A: The commenter introduces their organization, purposes, and programs, provides thanks to Kern County for the opportunity to comment on the Draft EIR, and specifies that the intent of their letter is to provide comments with respect to wildlife. The County acknowledges receipt of the Kern Audubon Society comment letter and detailed responses to each comment are provided below.

11-B: The commenter introduces the project, identifies sensitive species that have the potential to occur, and states that surveys should be performed by qualified biological consultants using the appropriate survey protocols. The project Wildlife Survey Report, which is provided in Appendix D-2 of the Draft EIR, describes the protocol survey efforts (beginning on page 18) conducted for desert tortoise, Mohave ground squirrel, and burrowing owl. Additionally, other special-status species and their signs were documented upon observation. The field data provided in the results (beginning on page 25) documents the survey efforts which indicate that the surveys were conducted in accordance with the respective survey protocols.

The commenter also notes that ravens are a threat to desert tortoise recovery. The Draft EIR identifies and analyzes indirect impacts to desert tortoise as a result of increased common raven depredation in Impact 4.4-1. Impact 4.4-1 analyzes and concludes potentially significant impacts to desert tortoise due to raven depredation. As a result, the Draft EIR identifies the following mitigation measures to protect desert tortoise, reduce and manage raven populations, and mitigate for take of desert tortoise: MM 4.1-1KC and MM 4.1-1CC (Maintenance, Trash Abatement, and Pest Management Plan); MM 4.4-10KC and MM 4.4-10CC (Construction, Operations, and Decommissioning Waste Management); MM 4.4-15KC and MM 4.4-15CC (Incidental Take Permit, Habitat Conservation Plan, and Habitat Mitigation and Monitoring Plan for desert tortoise); and MM 4.4-21KC and MM 4.4-21CC (Raven Management Plan). This comment is noted for the record, and revisions to the Draft EIR are not necessary.

11-C: The comment introduces the subsequent comments and recommendations in the comment letter. No further response is necessary.

11-D: Please refer to response to comment 3-G regarding Swainson's Hawk. Mitigation Measures are proposed that would reduce potential impacts to Swainson's Hawk to a level less than significant.

11-E: The commenter addresses prairie falcons and the project survey results indicating that prairie falcons were observed in flight during site surveys, but no nesting locations were found. The Draft EIR identifies that the prairie falcon has a moderate to moderately high occurrence in the project area, with nearby known occurrences, which is consistent with the commenter's description of the prairie falcon presence in the project area. The commenter also affirms mitigation measures MM 4.4-19KC and MM 4.4-19CC identified in the Draft EIR to conduct preconstruction avian nesting surveys and implement protective measures to avoid entrapment of special-status birds, including the prairie falcon. The Draft EIR and the commenter's assessments are in agreement. This comment is noted for the record, and revisions to the Draft EIR are not necessary.

11-F: The commenter addresses burrowing owl and the project survey results indicating presence of burrowing owl and that the project site provides suitable habitat, including nesting and wintering. The commenter identifies direct and indirect impacts to burrowing owl, which are consistent with the analysis provided in Impact 4.4-1 of the Draft EIR. The commenter also affirms mitigation

measures MM 4.4-1KC through MM 4.4-8KC, MM 4.4-19KC, and MM 4.4-19CC identified in the Draft EIR to ensure that impacts to burrowing owl would be reduced to less than significant. The Draft EIR and the commenter's assessments are in agreement. This comment is noted for the record, and revisions to the Draft EIR are not necessary.

- 11-G:** The commenter provides the closing to the comment letter, including thanking Kern County for the opportunity to comment, and includes contact information for the Conservation Chair of the Kern Audubon Society and the Director, Clean Energy Initiative of Audubon. The comment and information provided are noted for the record, and revisions to the Draft EIR are not necessary.
- 11-H:** The commenter provides references to burrowing owl related studies cited in the comment letter. These sources are consistent with and include studies that were used in the Draft EIR. The comment and information provided are noted for the record, and revisions to the Draft EIR are not necessary.
- 11-I:** The comment letter includes an attached map showing the prairie falcon brown butte eyrie that is in the near vicinity of the project site. This identification of nearby known occurrences is consistent with the assessment provided in the Draft EIR, and the Draft EIR and the commenter's assessments are in agreement. This comment is noted for the record, and revisions to the Draft EIR are not necessary.

Comment Letter 12: Sahu, Ranajit (Ron), PhD (August 16, 2021)**Dr. Ranajit (Ron) Sahu**

Consultant

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Date: August 16, 2021

Ms. Ronelle Candia
Supervising Planner
Kern County Planning and Natural Resources Department
2700 "M" Street, Suite I 00
Bakersfield, CA 93301
Submitted via emails to: CandiaR@kerncounty.com

Ref: Comments on the Draft Environmental Impact Report (DEIR) for the Bellefield Solar Project ("Project") by 50 LW 8 ME LLC (8Minute Energy) (SCH #2021010168)

Dear Ms. Candia

I am submitting these timely comments on the aforementioned DEIR based on my review of the document and the Appendix materials on behalf of Pioneer Partners 2000 LLC, a long-time landowner in Mojave with excess of 400 acres proximate to the airport in the vicinity of this proposed Project. I attended the virtual meeting held on February 5, 2021 and have previously submitted written comments on February 14, 2021, as acknowledged in the DEIR. My contact information is as provided above. Please maintain my contact information on your distribution list to receive information and notifications about this Project.

12-A

In summary, based on the deficiencies I note in this comment letter and others, my client, who is otherwise a strong supporter of renewable energy, is unable to support this project given the shortcomings I note in this comment letter. I urge you to substantively address these comments.

A. Organization

The central purpose of the DEIR is to afford the public with a means to understand the potential impacts of a proposed project. To that extent, and especially so for a proposed project as large as this one, it is imperative that the materials provided be reasonably organized to facilitate public review. Unfortunately that is not the case in the present instance.

The DEIR consists of the main Volume 1 and 5 additional Volumes containing Appendices A through M, as follows:

12-B

Volume 1 (1130 pages)

Volume 2 (1074 pages): Appendix A (starting pdf 5), Appendix B (pdf 232), Appendix C (pdf 827)

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Volume 3 (1204 pages): Appendix D (pdf 4), Appendix E (pdf 410), Appendix F (pdf 577), Appendix G (pdf 593), Appendix H (pdf 693), Appendix I (pdf 719)

Volume 4 (1204 pages): Appendix I continued.

Volume 5 (1204 pages): Appendix I continued.

Volume 6 (1444 pages): Appendix I continued, Appendix J (pdf 1138), Appendix K (pdf 1261), Appendix L (pdf 1357), Appendix M (pdf 1399).

However, in most instances, each of these Appendices contains sub-Appendices and even sub-sub-Appendices, also confusingly named in alpha – meaning that many of the Appendices A-M also have sub-Appendices A, B, C, etc.

None of the Volumes containing the Appendices have any Table of Contents and book-marks so that the reader can quickly jump to an appropriate analysis without navigating thousands of pages of paper. This makes finding information difficult and unnecessarily so, given the document organization capabilities available today.

Compounding this is the fact that multiple Volumes (i.e., 3, 4, 5, and 6) consist of the EDR Phase I report as part of Appendix I. It would have been much better to have this information at the very end so that critical subject matter Appendices J-M are not squeezed at the very end of Volume 6.

12-B
cont'd

B. Information Availability

Certain of the technical analysis, such as Air Quality and Greenhouse Gas emissions as well as Noise and Vibration analyses rely on models and the results should be provided in electronic format for review and verification.

As an example, please provide the air quality calculations contained in the tables on pages pdf 897-914 in Volume 2 in Excel format.

12-C

C. Inconsistency in Project Description

It goes without saying that all of the technical evaluations should use a consistent project description – or else they cannot simply be presumed to be accurate. Yet, that does not seem to be the case. In Volume 1, the project description is described, at pdf page 58 as:

“The Bellefield Solar Project (proposed project), proposed by 50LW 8ME LLC (project proponent/operator), would develop a photovoltaic solar facility and energy storage system along with associated infrastructure necessary to generate up to 1,500 megawatts (MW) of alternating current and up to 1,500 MW-hour (MWh) energy storage capacity. The proposed project consists of approximately 8,371 acres of privately-owned land...”

12-D

However, the analysis provided in Volume 6, at pdf 1143, prepared in September 2019 (and therefore clearly outdated) misstates something as basic as the project acreage as follows:

“The project includes approximately 6,500 acres in Kern County, CA approximately 4 miles east of Mojave, CA (Exhibit 1). At the time of this report, the project consists of preliminary parcel layout.” (emphasis added)

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Even a later (June 2020) analysis, more consistent with the DEIR preparation time period describes the project as follows (Volume 6, pdf page 1370) and gets the basic electrical generation of the project wrong:

“(Stantec) has performed a traffic impact analysis for the Bellefield Solar Project (Project), the proposed construction and operation of a 750-megawatt alternating current utility-scale solar farm with an energy storage system (ESS) located in unincorporated Kern County and California City, California.” (emphasis added)

And, surprisingly, a very recent analysis, from January 2021 (Volume 6, pdf 1413), which post-dates the bulk of the DEIR’s analysis describes the project as follows and references totally different project sizes for electrical generation and a wide range for storage:

“The project would construct and operate an up to 1,150 megawatt (MW) alternating current (AC) utility-scale solar farm with an up to 750- to 2,000-MWh (MW-hour) Energy Storage System (ESS).” (emphasis added)

It is clear from the above in the examples provided that the respective technical analyses, which form the heart of the DEIR, did not use consistent project descriptions by area, by generation size or by storage size. As a commenter, I am simply confused as to which of these is correct and which are not or are any of them correct for that matter. Given this, it is impossible to conclude that the analysis presented in the DEIR is accurate. Therefore it is impossible to have confidence in the analysis presented in the DEIR as a whole.

I ask that you provide a thorough response as to why, given these major inconsistencies in the basic project descriptions used by the various consultants, one should have any faith in the analysis presented in the DEIR.

Next, I address some specific issues, in addition to the general deficiencies noted above.

D. Specific Inconsistencies***D.1 Lack of Proper Analysis of the Heat-Island Effect***

One of the potential major adverse impacts of a large PV solar project like the subject project is the heat-island effect, in which local temperatures are elevated in the area during certain day and night time periods and during certain seasons. This, of course, has knock-on other adverse impacts.

Yet, given this criticality, the sum total of the heat-island analysis in the DEIR is as follows, as provided in Volume 1, pdf pages 683-684.

“Increase in Ambient Temperatures

All exposed surfaces (e.g., houses, cars, rocks) absorb heat produced by the sun. A “heat island” effect is generated when land is covered with structures (e.g., concrete buildings and asphalt roads) which absorb and store significantly more heat during the day than undeveloped earth. Additionally,

12-D
cont'd

12-E

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energy-consuming devices (e.g., engines, appliances, and heating, air-conditioning, and ventilation [HVAC] systems) also generate waste heat.

Solar arrays consist of PV panels mounted on aluminum and steel support structures, restricting sunlight from reaching the ground surface. The project site would not be covered entirely with solar panels. Additionally, the amount of the sun's heat absorbed by a solar panel is similar to the amount of the sun's heat absorbed by open land. However, solar panels store less heat than the earth because they consist of a thin, lightweight glass that is surrounded by airflow. Therefore, heat dissipates quickly from a solar panel compared with solid earth, which dissipates heat slowly. The project would also include energy-consuming devices (e.g., inverters). Therefore, marginal amounts of waste heat may be generated on the project site. There is nothing in the record to date that would indicate that the project would significantly increase ambient air temperatures outside the project site.

Fthenakis and Yu from Columbia University and Brookhaven National Laboratory combined models with field data to determine the extent to which PV facilities altered ambient air temperatures (Fthenakis and Yu 2013). Temperatures surrounding the facility were found to cool completely at night and the researchers determined that the PV facility “did not induce a day-after-day increase in ambient temperatures, and therefore, adverse micro-climate changes from a potential PV plant are not a concern.” This study also concluded that increases in temperatures completely dissipated approximately 5-18 meters above the facility and that thermal energy “promptly dissipated” with distance from the facility. Remote sensing research produced by Edalat and Stephen from the University of Nevada of Las Vegas in 2017 supports the conclusions of Fthenakis and Yu (2013), demonstrating that land surface temperatures surrounding a solar facility were not significantly impacted by the solar facility (Edalat and Stephen 2017).” (emphasis added)

First, I ask that the authors support the conclusionary statement that I have highlighted in the quote above “...the amount of the sun's heat absorbed by a solar panel is similar to the amount of the sun's heat absorbed by open land.” Given the many site-specific variables at play (i.e., the nature and reflective properties of the open land at the site at present/baseline conditions, the type and properties of the PV panels, the geometries and coverages at issue, and many others), it is simply unacceptable to base an “analysis” on these types of generic statements. Of course, this statement is plainly false because it implied that there should be no heat-island effect, which is contradicted by the two studies referenced by the authors themselves, which I discuss next.

Second, the authors cite to Fthenakis and Yu (2013). An abstract¹ of that entire study is as follows:

“Large-scale solar power plants are being built at a rapid rate, and are setting up to use hundreds of thousands of acres of land surface. The thermal energy flows to the environment related to the operation of such facilities have not, so far, been addressed comprehensively. We are developing rigorous computational fluid dynamics (CFD) simulation capabilities for modeling the air velocity, turbulence, and energy flow fields induced by large solar PV farms to answer questions pertaining to potential impacts of solar farms on local microclimate. Using the CFD codes Ansys CFX and Fluent, we conducted detailed 3-D simulations of a 1 MW section of a solar farm in North America and compared the results with recorded wind and temperature field data from the whole solar farm. Both the field data and the simulations show that the annual average of air temperatures in the center of PV field can reach up to 1.9°C above the ambient temperature, and that this thermal energy completely dissipates to the environment at heights of 5 to 18 m. The data also show a prompt

¹

https://www.researchgate.net/publication/271435900_Analysis_of_the_potential_for_a_heat_island_effect_in_large_solar_farms

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dissipation of thermal energy with distance from the solar farm, with the air temperatures approaching (within 0.3°C) the ambient at about 300 m away of the perimeter of the solar farm. Analysis of 18 months of detailed data showed that in most days, the solar array was completely cooled at night, and, thus, it is unlikely that a heat island effect could occur. Work is in progress to approximate the flow fields in the solar farm with 2-D simulations and detail the temperature and wind profiles of the whole utility scale PV plant and the surrounding region. The results from these simulations can be extrapolated to assess potential local impacts from a number of solar farms reflecting various scenarios of large PV penetration into regional and global grids.” (emphasis added)

There are many obvious limitations of the Fthenakis and Yu (2013) analysis as I have highlighted above: (i) it was for a very small 1 MW solar farm located in “North America”; (ii) it admits that even the annual average temperatures can be considerably greater (i.e., 1.9 C) with the solar plant; and that increase in temperature was felt over considerable distance (i.e., 300 meters. Clearly, this study and its concerning conclusions even for a very small (1 MW as opposed to the 1500 MW project at issue) project cannot be used to conclude that the heat-island effect is inconsequential as the DEIR wrongly presents. I also note that it is not just annual temperature increases but daily and short-term increases (which, even for Fthenakis and Yu would be much more than 1.9 C) that are more important for impacts. In sum, the DEIR’s qualitative “analysis” of the heat-island effect is simply cursory, conclusionary, unsupported, and technically wrong.

Third, the authors seek to bolster the Fthenakis and Yu (2013) cite using the Edalat and Stephen (2017) work, whose abstract² I quote below:

“Solar plants are designed to absorb sun’s energy, which can change energy balance in a region. Thus, a potential effect of solar plants is thermal effect that can influence ecosystem and the environment. In the United States, high solar insolation levels in the Southwestern states creates significant electricity generation potential and thus subsequent impact on local and regional environment. The current operating solar plants generate 15 gigawatt electricity while the plants that are under construction and development are going to generates 43 gigawatt. Thus, it is expected to see more solar plants appearing on the southwest US landscape in the near future.

In this study, the thermal effects of utility-scale solar energy (USSE) plants are studied by analysis of land surface temperature (LST) with a particular comparison of pre- and post-installation conditions. The objective is to determine the significance of LST trends due to USSE construction. LST is obtained from brightness temperature obtained by Landsat 5 TM and Landsat 8 TIRS. This study is conducted at Copper Mountain Solar 1 located in Nevada. Since LST varies daily and seasonally, data treatment techniques are used to remove temperature variation in the data. The Man-Kendall test is applied to determine the significance of trends in resulting LST. Solar panel shadow can play in important role in the resulting average temperature. Therefore, a proportion of shadow in pixels casted by panels is estimated by analyzing sun angles for different times of year. The results showed that LST significantly decreases inside the plant area in winters and does not change in summers due to the panels’ shade on the ground. The satellite based observations used in this analysis are collected at 10AM. This trend analysis shows that USSE plants do not significantly effect LST in the surrounding environment at this particular time of day.” (emphasis added)

The shortcomings of this study and its usefulness to the proposed project are obvious. First, it assumption that conditions at the Copper Mountain site and the Mojave site are the same are

² <https://solamexus.epscorspo.nevada.edu/2017-graduate-student-poster-session/>

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unsupported. Second, and crucially, this study is not based on any actual field measurements, relying instead on interpreted satellite data collected at 10 AM (and not peak afternoon hours).

Collectively, neither study provides any support (and, in fact, provides significant cause for concern) that the heat-island effect of the proposed project will be negligible. A thorough evaluation of the heat-island effect and the consequences of the predicted temperature increases in the short-term and long-term should be provided in the DEIR.

12-E
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D.2 Inconsistency and Lack of Support for Water Demand Analysis

Large quantities of water will be required to keep the PV panels clean. Water demand is listed as 100 acre-feet per year for this purpose in one analysis (Volume 6, pdf page 1372), “Water demand for panel washing and O&M use is not expected to exceed 100 acre-feet per year (afy)....”. However, in the same Volume 6, a few pages later at pdf page 1418, it states that “Operational water demands, which include water used for fire suppression, solar PV panel washing and concentrate, and operation of the proposed O&M building, would total approximately 200.8 AFY.” Clearly, the latter (i.e., over 200 acre-feet per year) is more than twice the former.

Please explain this inconsistency and its implications for the analyses presented.

Further, I note that the water use analysis on pdf page 1420 in Volume 6 is based on a 2013 Sandia Study as is assumed to be 0.05 acre-feet of water per year per MW, “based on other utility-scale solar PV projects in California deserts.” Regardless, the relevance of this Sandia study to this specific site should be discussed before simply using this assumption, on the critical issue of water use. I note that the DEIR admits that there will be water shortages in drought years, which are increasingly common in California – as seen in Table 3 on pdf page 1433 of Volume 6.

12-F

D.3 Unenforceability of Air Quality Mitigation Measures

The DEIR acknowledges that there will be adverse air quality impacts as a result of the project. As a consequence and in an attempt to mitigate these adverse impacts, there are two mitigation measures (Volume 2, pdf pages 887-888), AQ-1 and AQ-2 proposed by the applicant.

While I wholeheartedly support the use of these two measures, a review of the contents of the measures themselves provides no assurance as to their effectiveness. In fact, almost every aspect of these measures is qualitative and unenforceable, relying on some sort of unspoken “honor-code” that the project applicant will, in fact, implement the generally-written and nice-sounding words. I have quoted the entirety of these two measures below and, rather than repeat the obvious unenforceability of the many provisions, I have highlighted, via underlines, the many instances in which the provisions are meaningless without implementation and enforceability details including actual monitoring of the effectiveness of the measures and recordkeeping. That this is all going to be done in some future fugitive dust control plan that “should be endorsed” by the air pollution control agency, does not provide any assurance for the DEIR purposes.

12-G

“AQ-1 Further Reduction of PM10 Emissions during Construction, Decommissioning, and Operation, and Maintenance

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Develop a fugitive dust control plan (Plan) for the proposed Project. The Plan should address short-term construction, long-term operational, and decommissioning activities. The Plan should be endorsed by the EKAPCD prior to the start of any earthmoving activity. The Plan should include all EKAPCD recommended measures, including but not limited to, the following:

a) Speed for all on-site construction vehicles shall not exceed 15 miles per hour (mph) on any unpaved surface on the construction site. Signs identifying construction vehicle speed limits shall be posted along on-site roadways, at the site entrance/exit, and along unpaved site access roads.

b) All on-site unpaved roads and off-site unpaved Project site access road(s) shall be effectively stabilized from dust emissions using water or EKAPCD-approved dust suppressants/palliatives, sufficient to prevent wind-blown dust exceeding 20 percent opacity at nearby residences or public roads. If water is used, watering shall occur at a minimum of three times daily, sufficient to keep soil moist along actively used roadways. During the dry season, unpaved road surfaces and vehicle parking/staging areas shall be watered immediately prior to periods of high use (e.g., worker commute periods, truck convoys), Reclaimed (non-potable) water shall be used to the extent available.

c) Reduce and/or phase the amount of the disturbed area (e.g., grading, excavation) where possible.

d) All disturbed areas shall be sufficiently watered or stabilized by EKAPCD-approved methods to prevent excessive dust. On dry days, watering shall occur a minimum of three times daily on actively disturbed areas. Watering frequency shall be increased whenever wind speeds exceed 15 mph, or as necessary, to prevent wind-blown dust exceeding 20 percent opacity at nearby residences or public roads. Reclaimed (non-potable) water shall be used to the extent available.

e) All clearing, grading, earth moving, and excavation activities will cease during periods when dust plumes of 20 percent or greater opacity affect public roads or nearby occupied structures.

f) All disturbed areas anticipated to be inactive for periods of 30 days or more shall be treated to minimize wind-blown dust emissions. Treatment may include, but is not limited to, the application of an EKAPCD-approved chemical dust suppressant, gravel, hydro-mulch, revegetation/seeding, or wood chips.

g) All active and inactive disturbed surface areas shall be compacted, where feasible.

h) Equipment and vehicle access to disturbed areas shall be limited.

i) Where applicable, permanent dust control measures shall be implemented as soon as possible following completion of any soil-disturbing activities.

j) Stockpiles of dirt or other fine loose material shall be stabilized by watering or other appropriate methods sufficient to reduce visible dust emissions to a limit of 20 percent opacity. If necessary and where feasible, three-sided barriers shall be constructed around storage piles and/or piles shall be covered by tarps, hydro-mulch, woodchips, or other materials sufficient to minimize wind-blown dust.

k) Water shall be applied prior to and during the demolition of on-site structures, sufficient to minimize wind-blown dust.

l) Where required by the fire department, weed control will be accomplished by mowing instead of disking, thereby leaving the ground undisturbed and covered with mulch.

m) All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least two feet of freeboard (minimum vertical distance between top of the load and top of the trailer) in accordance with California Vehicle Code Section 23114.

12-G
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n) Gravel pads, grizzly strips, or other material track-out control methods approved for use by the EKAPCD shall be installed where vehicles enter or exit unpaved roads onto paved roadways.

o) Haul trucks and off-road equipment leaving the site shall be washed with water or high pressure air, and/or use rocks/grates at the Project entry points, when necessary, to remove soil deposits and to minimize the track-out/deposition of soil onto nearby paved roadways.

p) Paved road surfaces located adjacent to the site access road(s), including adjoining paved aprons, shall be cleaned, as necessary, to remove visible accumulations of track-out material. If dry sweepers are used, the area shall be sprayed with water prior to sweeping to minimize the entrainment of dust. Reclaimed water shall be used to the extent available.

q) Portable equipment with 50 horsepower or greater used during construction activities (e.g., portable generators, concrete batch plant) will require California statewide portable equipment registration (issued by CARB) or an EKAPCD permit.

r) The Fugitive Dust Control Plan shall identify a designated person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures, as necessary, to minimize the off-site transport of dust and to ensure compliance with identified fugitive dust control measures. Their duty hours shall include holidays and weekend periods when work may not be in progress. The names and telephone numbers of such persons shall be provided to the EKAPCD Compliance Division prior to the start of any grading, earthwork, or demolition.

s) Signs shall be posted at the Project site entrance and written notifications shall be provided a minimum of 30 days prior to initiation of Project construction to residential land uses located within 1,000 feet of the Project site. The signs and written notifications shall include the following information: (a) Project name; (b) anticipated construction schedule(s); and (c) telephone number(s) for designated construction activity monitor(s) or, if established, a complaint hotline.

t) The designated construction monitor will document and immediately notify EKAPCD of any air quality complaints received. If necessary, the applicant and/or contractor will coordinate with EKAPCD to identify any additional feasible measures and/or strategies to implement to address public complaints.

AQ-2 Minimize Personnel and Public Exposure to Valley Fever

Including the following in the Fugitive Dust Control Plan to be prepared for this Project as discussed in Recommendation AQ-2:

a) Equipment, vehicles, and other items shall be cleaned thoroughly of dust before they are moved off site to other work locations.

b) Wherever possible, grading and trenching work shall be phased so that earth-moving equipment works well ahead or down-wind of workers on the ground.

c) The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area.

d) In the event that a water truck runs out of water before dust is dampened sufficiently, ground workers exposed to dust are to leave the area until a full truck resumes water spraying.

e) All heavy-duty earth-moving vehicles shall be closed-cab and equipped with a High Efficiency Particulate Arrestance (HEPA) filtered air system.

12-G
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f) Workers shall receive training 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 Community Development Department within 24 hours of the training session.”

It is clear from the above, that the above collection of potential actions seem appropriate, the actual effectiveness depends on their proper implementation and the measurement of their effectiveness. Yet, no verification or measurements are required. That makes AQ-1 and AQ-2 toothless. The DEIR should provide greater detail including the fugitive dust plan so adjacent land-owners have a better idea of how dust management will occur and how adverse dust impacts will be mitigated at all times.

I would like to conclude that my client is a supporter of renewal energy. But, the deficiencies I have noted, unless corrected, make it impossible to support the project as currently analyzed. Thank you for providing the opportunity to comment on this Project. I look forward to hearing from you. My cell is 702.63.5466 or you may contact me via email at ronsahu@gmail.com

Thanks



Dr. Ranajit (Ron) Sahu, Ph.D, Certified Environmental Manager

Consultant

12-G
cont'd

12-H

Response to Letter 12: Sahu, Ranajit (Ron), PhD (August 16, 2021)

12-A: The commenter provides contact information and identifies that the comment letter is submitted on behalf of a client, a landowner in Mojave. The commenter also notes participation in the virtual project scoping meeting and providing of comments during the public scoping period. The commenter summarizes the comment letter stating that because of the shortcomings noted in the comment letter the commenter's client is unable to support the project. The commenter's information and statements are noted for the record and revisions to the Draft EIR are not necessary.

12-B: The commenter states that the Draft EIR was not reasonably organized, and identifies the content and number of pages in each of the Draft EIR volumes. The commenter states that the technical studies in the Draft EIR Appendices contain appendices, which may also contain appendices, and which may also be named using alpha conventions. The technical studies themselves include appendices to provide technical background and data in support of the analysis, and appendices are commonly designated in alpha nomenclature.

The commenter states that the volumes do not contain Table of Contents and bookmarks. The Draft EIR and associated volumes have been organized similar to other environmental documents of comparable scale. The Table of Contents is provided in Volume 1, and each volume is PDF-bookmarked to each appendix item.

The commenter also states that the EDR Phase I report occupied volumes 3 through 6, and suggests that the report be placed at the end. The appendix files occur in the order that respective environmental analysis that the technical study supports occurs in the Draft EIR. This comment is noted for the record and revisions to the Draft EIR are not necessary.

12-C: The commenter requests that the air quality, greenhouse gas, and noise model results be provided in electronic format, such as the air quality results in Excel format. The Draft EIR and technical studies are provided in PDF format, which is the commonly used format for circulated environmental documents for document protection. The Draft EIR provides the methodology, model input, assumptions, output results, and cited sources in the Air Quality and Greenhouse Gas Study in Appendix D, and the Noise Study in Appendix L of the Draft EIR, which provide reasonable guidance on how the calculations and modeling were conducted. The project Draft EIR air quality, greenhouse gas, and noise technical studies provide a good faith effort at disclosing how the analysis was conducted. The Draft EIR has not been found to be inadequate in the air quality, greenhouse gas, and noise modeling results. This comment is noted for the record and revisions to the Draft EIR are not necessary.

12-D: The commenter states that there are inconsistencies in the description of the project generation quantities and project area, and the commenter identifies several technical studies that present project generation quantities and project area values that are different than those stated in the Project Description, Chapter 3 of the Draft EIR. The technical studies provide support to the Draft EIR analyses; additionally, variations in the generation and storage capacities occur as a result of the extent of buildout and the types of systems determined by the project proponent. This comment is noted for the record, and revisions to the Draft EIR are not necessary.

12-E: The commenter expresses concern regarding the analysis of the potential heat island effect analyzed in the Draft EIR. To clarify the analysis in the Draft EIR, it is expected that heat absorbed by the solar panels would be dissipated quickly compared with the earth. The analysis identifies that to

date, there is no indication that the project, similar to other large-scale solar photovoltaic projects, would significantly increase ambient air temperatures outside of the project site. The commenter also states that the cited study, *Analysis of the Potential for a Heat Island Effect in Large Solar Farms* from Columbia University and the Brookhaven National Laboratory, has limitations on its applicability to the project. Since the study was prepared by a reputed academic source and has been subjected to expert reviews, it is considered a reasonable basis for evaluating the project's potential impacts. This comment is noted for the record, and revisions to the Draft EIR are not necessary.

- 12-F:** The commenter states that the project water demand is reported as 100 acre-feet per year (AFY) in the *Bellefield Solar Project Traffic Impact Analysis* (June 2020) while the *Bellefield Solar Project Water Supply Assessment* identifies an operational demand of approximately 200.8 AFY, which is consistent with the project water demand identified in Chapter 3, *Project Description*, and analyzed in Section 4.16, *Utilities and Service Systems*, of the Draft EIR. The project Water Supply Assessment provides the technical background used to support of the analysis of the project water needs in Section 4.16, *Utilities and Service Systems*.

The commenter also questions the applicability of the cited Sandia study, *Water Use and Supply Concerns for Utility-Scale Solar Projects in the Southwestern United States* (July 2013), which provided the basis of the estimated project water demand. The study was a work effort prepared on behalf of the U.S. Department of Energy, and it provides a comprehensive review of water usage for large utility-scale solar photovoltaic facilities in California deserts. Since the study was prepared by a reputed and official source, and reports water usage for projects similar in scale, climate, and technology to the Bellefield Solar Project, it is considered a reasonable basis to estimate water usage. This comment is noted for the record, and revisions to the Draft EIR are not necessary.

- 12-G:** The commenter refers to mitigation measures identified in the air quality study provided in the Draft EIR appendix, rather than the mitigation measures proposed in Draft EIR Section 4.3, *Air Quality*. The measures identified in the appendix materials were provided as input to the County and its consultant in preparing the Draft EIR; however, the Draft EIR lists seven mitigation measures to be implemented in the Kern County and California City parcels (see mitigation measures MM 4.3-1KC through MM 4.3-4KC and mitigation measures MM 4.3-1CC through MM 4.3-4CC to minimize emissions of criteria air pollutants during construction activities, on pages 4.3-39 through 4.3-46, and mitigation measures MM 4.3-5KC through MM 4.3-7KC and mitigation measures MM 4.3-5CC through MM 4.3-7CC to reduce the potential for adverse health effects on sensitive receptors, on pages 4.3-55 through 4.3-57 of the Draft EIR). The measures provided in the Draft EIR incorporate many of the same actions noted in the referenced appendix materials and go beyond those. Nevertheless, the County acknowledges the commenter's assertion that the mitigation measures are not enforceable as written and could apply to the measures listed in the Draft EIR.

All of the air quality mitigation measures presented in Section 4.3 and throughout the Draft EIR will be enforced through a Mitigation Measure Monitoring Program (MMMP) to be administered by the respective lead agencies, i.e., Kern County and the City of California City. This is required by Section 15097 of the California Environmental Quality Act Guidelines and is a standard enforcement mechanism to ensure full and proper implementation of the mitigation measures identified in Draft and Final EIRs. The MMMP will assure this is accomplished by identifying all mitigation measures, the timeframe to implement each measure, the steps required to demonstrate

compliance with each measure, and the lead and responsible agency/departments responsible for conducting mitigation monitoring and verifying successful completion of each measure. All mitigation measures will also be enforced as conditions of project approval. Through this standard enforcement mechanism, there are sufficient safeguards in place to assure the effectiveness and timely implementation of all of the mitigation measures identified in the Draft EIR.

- 12-H:** The commenter provides a closing to the letter, states that the deficiencies make it impossible for the commenter's client to support the project, and provides the commenter's contact information. The comment and information provided are noted for the record, and revisions to the Draft EIR are not necessary.

Letters Received After August 16, 2021 Close of Public Comment Period

Comment Letter 13: Eastern Kern Air Pollution Control District, Glen E. Stephens, P.E., Air Pollution Control Officer (August 16, 2021)



Eastern Kern
Air Pollution Control District

Glen E. Stephens, P.E.
Air Pollution Control Officer

August 16, 2021

Ronelle Candia, Supervising Planner
Kern County Planning and Natural Resources Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301

SUBJECT: Comments for Draft Environmental Impact Report for Bellefield Solar Project (SCH #2021010168)

Dear Ms. Candia:

Eastern Kern Air Pollution Control District (District) is in receipt of the Draft Environmental Impact Report (DEIR) for the Bellefield Solar Project.

Commercial solar power generation facilities 10 acres and larger are required to submit a Fugitive Dust Emission Control Plan and apply for an Authority to Construct prior to commencing construction of the facility; this would apply to each facility within the project. Additionally, a Fugitive Dust Emission Monitoring Plan is required to be submitted to the District in order for a Permit to Operate to be issued for the facility. Also, stationary internal combustion engines rated greater than 50-bhp or gasoline storage tanks larger than 250 gallons require a Permit to Operate from the District.

13-A

13-B

If installation of the generation tie in line will require disturbing more than 10 contiguous acres of land, it would be considered a large operation, as defined in District Rule 402 (Fugitive Dust), and a Fugitive Dust Emission Control Plan must be submitted to the District prior to commencing construction of the tie in line.

13-C

Thank you for your cooperation in this matter. Should you have any questions, please telephone Samuel Johnson our office at (661) 862-5250.

Sincerely,

A handwritten signature in blue ink, appearing to read "Glen E. Stephens".

Glen E. Stephens, P.E.
Air Pollution Control Officer

GES:SJ:tf

*Administrative Office: 2700 "M" Street, Suite 302, Bakersfield, CA 93301-2370
Phone (661) 862-5250 – Fax (661) 862-5251
www.kernair.org – ekapcd@kerncounty.com*

Response to Letter 13: Eastern Kern Air Pollution Control District, Glen E. Stephens, P.E., Air Pollution Control Officer (August 16, 2021)

- 13-A:** The commenter notes that solar facilities 10 acres and larger are required to submit a Fugitive Dust Emission Control Plan and apply to EKAPCD for an Authority to Construct prior to commencing construction of the facility. This applies to each of the individual solar facility sites.

As discussed in Section 4.3, *Air Quality*, of the Draft EIR, construction and operation of the proposed project would be conducted in compliance with applicable rules and regulations set forth by the EKAPCD, including all necessary permits. Additionally, fugitive dust would be reduced during project construction through implementation of Mitigation Measures MM 4.3-1KC to MM 4.3-3KC (i.e., construction equipment controls, watering of disturbed onsite soils, monitoring of fugitive dust emissions, restrict worker roundtrips during construction, etc.), which would be implemented in conformance with the applicable EKAPCD plans and regulations and Kern County General Plan Policies 20 and 21. As such, the project proponent would coordinate with the EKAPCD as necessary. This comment has been noted for the record, and revisions to the Draft EIR are not necessary.

- 13-B:** The commenter identifies the requirement that any use of stationary engines over 50 horsepower will require a permit to operate from the EKAPCD prior to installation and operation.

As stated above in Response 13-A, the project would comply with applicable EKAPCD plans including any necessary permits, as discussed in Section 4.3, *Air Quality*, of the Draft EIR. Therefore, the project would comply with this request. This comment has been noted for the record, and revisions to the Draft EIR are not necessary.

- 13-C:** The commenter indicates that if construction of the project's gen-tie line would disturb 10+ acres, such construction would be subject to Rule 402, requiring submittal of a Fugitive Dust Control Plan to EKAPCD.

This is acknowledged, and construction of the gen-tie line is encompassed within the proposed construction dust control measures and EKAPCD compliance measures noted in Response 13-A. This comment has been noted for the record, and revisions to the Draft EIR are not necessary.

**Comment Letter 14: California Native Plant Society, Isabella Langone, Conservation Analyst
(August 31, 2021)**

CALIFORNIA
NATIVE PLANT SOCIETY

2707 K Street, Suite 1, Sacramento, CA 95816-5130 (916) 447.2677 www.cnps.org

Protecting
California's native
flora since 1965

August 31, 2021

Ronelle Candia
Kern County
Planning and Natural Resources Department
2700 M Street, Suite 100
Bakersfield, CA 93301

Sent electronically to: CandiaR@kerncounty.com

Re: Comments on Bellefield Solar Project Draft Environmental Impact Report

Dear Ms. Candia,

Thank you for the opportunity to provide scoping comments on the Bellefield Solar Project in Kern County, California. The California Native Plant Society (“CNPS”) is a statewide, non-profit organization with more than 10,000 members across 35 local chapters. The mission of CNPS is to conserve California native plants and their natural habitats, and to increase the understanding, appreciation, and horticultural use of native plants. CNPS works closely with decision-makers, scientists, and local planners to advocate for well-informed policies, regulations, and land management practices.

14-A

CNPS supports renewable energy development that is sited and planned to avoid adverse impacts to sensitive biological resources. A necessary step in ensuring that projects are appropriately sited is to conduct botanical surveys. Our primary concern regarding the Bellefield Solar Project is that adequate floristic surveys were not completed during the environmental review process. A vegetation community assessment was conducted throughout the Project Area in August and September of 2019 and April and May of 2020. However, a “floristically-based, protocol-level survey (CDFW 2009) in all natural (or naturalized) habitats within the Project Area was not conducted during either of the vegetation community assessments in 2019 or 2020.” (Biological Evaluation, p. 43). Due to the timing of the vegetation assessments, “most special status plants that have some potential to occur within the Project Area were not expected to be observable.” (Biological Evaluation, p. 27). This is entirely deficient with respect to the evaluation of impacts to special status plant species.

14-B

“The literature research conducted for special status plant species (Section 2.0) identified a total of 48 species within the USGS quadrangles in and around the Project Area (CNDDDB 2019a, 2019b). Out of the 48 species identified, 22 species have the potential to occur within the Project Area (Table 1).” (Biological Evaluation, p. 26). Based on the literature research, at least

14-C

Comment Letter 14: California Native Plant Society, Isabella Langone, Conservation Analyst (August 31, 2021)

two special status species, Alkali Mariposa-lily (*Calochortus striatus*, CRPR 1B.2) and Mojave Spineflower (*Chorizanthe spinosa*, CRPR 4.2E), are present on the site. Many more special status species have high or moderate potential to occur in the project area. Floristic surveys are the only way to confirm the presence or absence of a species on a site. The County cannot rely on literature research alone as definitive evidence of the absence of a plant species, or to determine which plant species are located in the project area and how they will be impacted. Database queries and other literature review cannot replace the data gained by field surveys, and field surveys are necessary to determine what species are actually on the ground. As such, the County's analysis of impacts to plant species is entirely deficient because it is not based on real data or concrete evidence about the plant species on the project site.

14-C
cont'd

Further, any proposed mitigation measures for impacts to plant species are also deficient because they similarly are not based on real data or meaningful analysis. The proposed mitigation measures are speculative at best, because the failure to perform floristic surveys makes it impossible to know precisely what plants are on the project site, the degree to which those plants will be impacted, and what mitigation measures will be needed to mitigate impacts to a less than significant level. In order to properly evaluate the environmental impacts to these plant species and mitigate those impacts as required under CEQA, appropriately timed floristic surveys must be conducted.

14-D

The basic principle of CEQA is to require agencies to make informed decisions about the environmental impacts of the projects they approve. An agency's analysis of impacts and its ultimate decision about the project must be based on actual evidence, such as survey data. This project is so deficient with respect to its botanical surveys that Kern County could not possibly be making an informed decision about how the project will impact plants. Vegetation community assessments and a simple literature search for sensitive or special status plants is not sufficient, particularly when there are 22 special status plants have potential to occur on the project site. The project should not be approved until floristic, protocol-level surveys has been performed so that the agency can properly analyze impacts to plant species.

14-E

Thank you for the opportunity to provide scoping comments on the Bellefield Solar Project. Please feel free to contact me if you have any questions.

14-F

Sincerely,



Digitally signed by Isabella Langone
DN: cn=Isabella Langone, o, ou,
email=ilangone@cnps.org, c=US
Date: 2021.08.31 15:24:51 -07'00'

Isabella Langone
Conservation Analyst
California Native Plant Society
2707 K Street, Suite 1
Sacramento, CA 95816
ilangone@cnps.org

Response to Letter 14: California Native Plant Society, Isabella Langone, Conservation Analyst (August 31, 2021)

- 14-A:** This is an introductory comment and does not address the adequacy of the Draft EIR, as such no further response is necessary.
- 14-B:** The Draft EIR identifies a potential permanent, direct impacts to special-status and other protected plants, where present, could occur in association with habitat loss from implementation of the proposed project from removal of existing vegetation and permanent development of the PV solar facility and associated gen-tie. Further, in addition, grading associated with these activities could result in mortality of special-status plant individuals. Potential permanent, indirect impacts to special-status plant species, if present, may arise from population fragmentation and introduction of non-native weeds. Population fragmentation could affect pollinator activity and adversely affect gene flow. Further, the introduction and establishment of invasive weeds within, or adjacent to, special-status plant populations can adversely affect native species by reducing growth and recruitment. Such impacts would be avoided or reduced to less than significant through implementation of Mitigation Measures MM 4.4-1KC through MM 4.4-8KC, MM 4.4-10KC through MM 4.4-13KC, MM 4.4-1CC through MM 4.4-8 CC, and MM 4.4-10CC through MM 4.4-13CC.
- 14-C:** Please refer to response to comment 14-B.
- 14-D:** Implementation of Mitigation Measure MM 4.4-12KC would reduce potential impacts to rare and special-status plants to a level less than significant. Mitigation Measure MM 4.4-12KC requires the following:

In the event ground disturbance does not commence within two (2) years of the last rare plant surveys, the project operator and/or contractor shall conduct preconstruction special-status plant survey(s) during the appropriate blooming period in accordance with the guidelines established by California Department of Fish and Wildlife (2009). Copies of these preconstruction surveys shall be provided to the appropriate wildlife agency and to the Kern County Planning and Natural Resources Department.

If any botanical species with a California Native Plant Society rank of 1.B-2 or higher is found during the preconstruction surveys, the project operator and/or contractor shall delay ground disturbance activities and contact California Department of Fish and Wildlife for consultation. If required, in consultation with California Department of Fish and Wildlife, a Habitat Mitigation Plan shall be prepared that includes, at a minimum, the following:

- a. Wherever feasible, if special-status plant species are observed within the proposed project footprint, the proposed project shall be designed by the Lead Biologist, to reduce impacts to the species through the establishment of preservation areas and buffers. If avoidance or minimization measures are implemented on-site, a Habitat Mitigation Plan shall be developed to ensure adequate management and conservation of botanical resources on-site over the long term. A copy of the Habitat Mitigation Plan shall be submitted to the Kern County Planning and Natural Resources Department.

- b. If the project would eliminate more than 10 percent of a local special-status plant population, the Habitat Mitigation Plan would also include the following:
 - 1. A figure illustrating the area of the population to be preserved, and the area of the population to be removed;
 - 2. Identification of on-site or off-site preservation, restoration, or enhancement location(s);
 - 3. Methods for preservation, restoration, enhancement, and/or population translocation;
 - 4. A replacement ratio and success standard of 1:1 for occupied habitat lost unless a lower mitigation ratio and/or alternative mitigation is agreed to in coordination with California Department of Fish and Wildlife;
 - 5. A five-year monitoring program to ensure mitigation success;
 - 6. Adaptive management and remedial measures in the event that performance standards are not achieved; and
 - 7. Financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.
- 14-E:** Please refer to response to comments 14-C and 14-D.
- 14-F:** Comment noted.

Comment Letter 15: East Kern Air Pollution Control District, Glen E. Stephens, P.E., Air Pollution Control Officer (September 2, 2021)

Letter to California Native Plant Society (August)



Eastern Kern
Air Pollution Control District

Glen E. Stephens, P.E.
Air Pollution Control Officer

September 2, 2021

Ronelle Candia, Supervising Planner
Kern County Planning and Natural Resources Department
2700 "M" Street Suite 100
Bakersfield, CA 93301

SUBJECT: Comments for Draft Environmental Impact Report for Bellefield Solar Project (SCH #2021010168)

Dear Ms. Candia:

Eastern Kern Air Pollution Control District (District) is in receipt of the Draft Environmental Impact Report (DEIR) for the Bellefield Solar Project.

According to the DIER, a large portion of this project will be constructed along State Route 58 (SR-58). Large scale soil disturbance near a public highway can cause low visibility leading to traffic accidents. Due to the potential hazard to drivers, the District recommends enhanced fugitive dust mitigation measures including but not limited to:

Source Category	Control Measure
Paved Roads (SR-58)	Signage along SR-58 warning drivers of potential fugitive dust ahead
Unpaved Roads	Control Vehicular Speed (signage/enforcement)
	Improve Road Surface (leveling/grading)
	Use Water Trucks to Keep Soil Damp
	Apply Dust Suppressant (palliatives/gravel/ect.)
Construction, and Earthmoving:	Minimize/Limit Cut-Fill Grading
	Phase Work to Reduce Disturbed Surface Area
	Utilized Wind Breaks (screens/fencing/barriers/burms)
	Use additional wind fencing to minimize fugitive dust onto highways
	Compact Disturbed Surfaces
	Limit Equipment/Vehicular Access
	Use Water Trucks to Keep Soil Damp

15-A

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Comment Letter 15: East Kern Air Pollution Control District, Glen E. Stephens, P.E., Air Pollution Control Officer (September 2, 2021)

	Apply Dust Suppressant (palliative/gravel/ect.)
Disturbed Surface Area Stabilization During Inactivity:	Compact Disturbed Surfaces
	Restrict Equipment/Vehicular Access
	Use Wind Breaks (screens/fencing/barriers/burms)
	Apply Dust Suppressant (palliative/gravel/ect.)
	Apply Hydro-mulch or Woodchips
	Re-vegetate

15-A
cont'd

Applicant will be required to include the above fugitive dust control measures with their Fugitive Dust Emission Control Plan submitted to the District prior to commencing construction.

Thank you for your attention to this matter. Should you have any questions, please telephone Miguel Sandoval our office at (661) 862-5250.

Sincerely,

Don Stephen

Glen E. Stephens, P.E.
Air Pollution Control Officer

GES:MS:tf

Response to Letter 15: East Kern Air Pollution Control District, Glen E. Stephens, P.E., Air Pollution Control Officer (September 2, 2021)

15-A: The commenter identifies receipt of the project Draft EIR and recommends specific standard fugitive dust control measures and erosion control best management practices (BMPs). The dust control measure and BMPs include those identified in Draft EIR Mitigation Measures MM 4.3-1KC and 4.3-1CC for preparation and implementation of fugitive dust plans, and MM 4.10-1KC and MM 4.10-1CC for preparation and implementation of stormwater pollution prevention plans (SWPPP) and associated BMPs. The compliance with specific control measures will be incorporated as Conditions of Approval within each CUP. This comment has been noted for the record, with the recommended dust control practices incorporated into the project conditions of approval, and revisions to the Draft EIR are not necessary.