DRAFT INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

CONDITIONAL USE PERMIT NO. 23-02
KINGS CSG 1 SOLAR

OCTOBER 2023

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Prepared for:

Lead Agency-
Kings County Community Development Agency

Project Applicant-
Kings CSG 1, LLC
11100 Santa Monica Boulevard, Suite 780
Los Angeles, CA 90025

Consultant:

5080 California Avenue, Suite 220
Bakersfield, CA 93309

October 2023

.
Project #220309.03

Table of Contents

List of Tables

LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AIA	Air Impact Assessment
AMBA	American Badger
AMP	Agricultural Management Plan
APN	Assessor's Parcel Number
AQAP	Air Quality Attainment Plan
ARB	Air Resources Board
BESS	Battery Energy Storage System
BMP	best management practices
BPS	best performance standards
BSA	Biological Survey Area
CAA	Clean Air Act
CAISO	California Independent System Operator
CARB	California Air Resources Board
CCAP	Climate Change Action Plan
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildife
CdTe	cadmium telluride
CEQA	California Environmental Quality Act
CERS	California Environmental Reporting System
CFCs	chlorofluorocarbons
CH_4	methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
COG	Council of Governments
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dBA	A-weighted decibels
DC	direct current
EMFs	electromagnetic fields
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GAMAQI	Guide to Mitigating and Assessing Air Quality Impacts
GHG	greenhouse gas
GSP	Groundwater Sustainability Plan
HCP	Habitat Conservation Plan
HMBPs	Hazardous Materials Business Plans
IC	Information Center
IEC	International Electrotechnical Commission
IS	Initial Study

ISR	Indirect Source Review
KCFD	Kings County Fire Department
KCSO	Kings County Sheriff's Office
KWRA	Kings Waste and Recycling Authority
LUST	Leaking Underground Storage Tank
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MRZ	Mineral Resources Zone
Mt CO_2e	metric tons of CO_2
MW	megawatt
MWh	megawatt hours
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NAS	Naval Air Station
NIOSH	National Institute for Occupational Safety and Health
NOI	Notice of Intent
NOx	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NWI	National Wetland Inventory
O_3	Ozone
OPR	Office of Planning and Research
Pb	lead
PCE	passenger car equivalent
PG&E	Pacific Gas & Electric Company
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
PV	photovoltaic
ROG	reactive organic gases
RPS	Renewable Portfolio Standards
RWQCB	Regional Water Quality Control Board
SGMA	Sustainable Groundwater Management Act
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	sulfur dioxide
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
UL	Underwriters Laboratory
USACE	United States Army Corps of Engineers
USBR	United States Bureau of Reclamation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	vehicle miles traveled
WDRs	waste discharge requirements
WWD	Westlands Water District
SWHA	Swainson's Hawk

SJKF	San Joaquin kit fox

MITIGATED NEGATIVE DECLARATION

As Lead Agency under the California Environmental Quality Act (CEQA), Kings County reviewed the Project described below to determine whether it could have a significant effect on the environment because of its development. In accordance with CEQA Guidelines Section 15382, "[s]ignificant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

Project Name

Kings CSG 1 Solar by Kings CSG 1, LLC

Project Location

The proposed solar project is located at 17345 18th Avenue, Lemoore, CA 93245 located within unincorporated Kings County. The Project is within Assessor's Parcel Number (APN) 026-070-009-000 and is approximately 119 acres.

Project Description

Kings CSG 1, LLC proposes to develop an approximately five-megawatt (MW) photovoltaic (PV) solar energy generation facility with a Battery Energy Storage System (BESS) and associated power line (the Project).

The Project will generate renewable energy utilizing. Photovoltaic solar panels include a point of connection to the power grid at the Jacobs Substation, located immediately north of the Project parcel, which would be connected with a gen-tie of about 150 feet in length, which will be interconnected to the adjacent Pacific Gas & Electric distribution system.

Construction is anticipated to take approximately three to four months to complete.

The Project includes the approval of Conditional Use Permit No. 23-02, and the non-renewal of a 40-acre portion of the Williamson Act Land Use contract.

Mailing Address and Phone Number of Contact Person

Abby Reed
11100 Santa Monica Boulevard, Suite 780
Los Angeles, CA 90025
(650) 622-6961

Findings

As Lead Agency, Kings County finds that the Project will not have a significant effect on the environment. The Environmental Checklist (CEQA Guidelines Appendix G) or Initial Study (IS) (see *Section 3 - Environmental Checklist*) identified one or more potentially significant effects on the environment, but revisions to the Project have been made before the release of this Mitigated Negative Declaration (MND) or mitigation measures would be implemented that reduce all potentially significant impacts less-than-significant levels. The Lead Agency further finds that there is no substantial evidence that this Project would have a significant effect on the environment.

Because of the nature of the Project's solar panels, the Project impacts are primarily related to the construction activities to install the solar panels.

Mitigation Measures Included in the Project to Avoid Potentially Significant Effects

MM AG-1: Prior to issuance of a building permit, the project proponent shall provide written evidence of completion of the following measures to the Kings County Community Development Agency to mitigate the loss of agricultural land at a ratio of 1:1 for net acreage before conversion for the life of the Project.

a) Cancel the existing Williamson Act land conservation contracts for the project footprint; and

b) Mitigate for the loss of Farmland of Statewide Importance at a ratio of 1:1 with restrictive covenants. The agricultural land preserved under the restrictive covenants shall be of equal or greater quality as defined by the California Department of Conservation's Farmland Mapping and Monitoring Program (i.e, if Farmland of Statewide Importance is converted to solar then the agricultural land preserved must not be in a classification indicating a lower quality than Farmland of Statewide Importance).

MM AG-2: Prior to the issuance of a building permit, the applicant shall submit, for review and approval by the Kings County Community Development Agency, a Soil Reclamation Plan (Plan) for the restoration of the site at the end of the Project's useful life. The Plan shall contain an analysis of pre-project general pre-construction conditions of the Project site, and the site shall be photographically documented by the applicant prior to the start of construction. The Plan shall contain specific measures to restore the soil to approximate its pre-project condition within 18 months of the Project's decommissioning. The Plan shall include (1) removal of all above-ground and below-ground project fixtures, equipment, and non-agricultural driveways, (2) tilling to restore the subgrade material to a density and depth consistent with its pre-project condition, (3) revegetation using a Kings County-approved grasses and forbs seed mixture designed to maximize revegetation with noninvasive species shall be broadcast or drilled across the Project site, and (4) application of weed-free mulch spread, as needed, to stabilize the soil until germination occurs and

young plants are established to facilitate moisture retention in the soil. Whether the Project area has been restored to pre-construction conditions shall be assessed by Kings County staff. Additional seedlings and applications of weed-free mulch shall be applied to areas of the Project.

MM AG-3: Prior to the issuance of a building permit, the developer shall post a performance or cash bond, submit a Certificate of Deposit, submit a letter of credit, or provide such other financial assurances acceptable to the County, in an amount provided in an Engineer's Cost Estimate, approved by the CDA, to ensure completion of the activities under the Soil Reclamation Plan. An updated Engineer's Cost Estimate shall be submitted to the CDA every five years to determine if the financial assurance instrument is still adequate to cover the Soil Reclamation Plan. If after review the financial assurances are determined to be inadequate, then the financial assurance shall be adjusted.

MM AG-4: To ensure that solid waste generated during project construction, operation, and decommissioning is properly disposed of or recycled, prior to issuance of building permits, the applicant shall prepare a Solid Waste Management Plan acceptable to the County pursuant to Section 1112.B.2.g of the Development Code. The nonhazardous waste generated during construction and operation will be segregated on-site for recycling or disposal at a Class III landfill. Hazardous wastes generated during project construction, operation, and decommissioning will be either recycled or disposed of at a Class I disposal facility, as required.

MM BIO-1: Within 14 days of the start of Project construction activities, a pre-construction survey should be conducted by a qualified biologist knowledgeable in the identification of these species. The pre-construction survey should include walking transects to identify the presence of burrowing owls and their burrows, American badgers and their dens, and desert kit foxes and their dens. The pre-activity survey shall be spaced at close enough intervals to provide 100 percent coverage of the Project site and a 250-foot buffer for American badger, and desert kit fox, and a 250-foot buffer for nesting burrowing owl. If no evidence of these special-status species is detected, no further action is required.

MM BIO-2: If dens or burrows that could support any of these species are discovered during the pre-activity survey conducted under Measure BIO-5, the avoidance buffers outlined below should be established, and den or burrow monitoring will be conducted in accordance with the California Department of Fish and Game (CDFG) *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012) and USFWS *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS, 2011b). No work would occur within these buffers unless the biologist approves and monitors the activity.

Burrows and dens may be excavated by a qualified biologist once it is determined that the burrow or den is not occupied. To determine occupation, each den should be monitored for three consecutive days/nights using tracking medium and/or remote cameras fitted with a motion detector and/or infrared triggering system. In addition, prior to excavation of burrows or dens, one-way doors may be installed (only in non-breeding season), and the

burrows or dens will be scoped with optic cameras to ensure no occupation of wildlife are present. All excavations would be accomplished by hand or backhoe under the direct supervision of a qualified biologist.

Burrowing Owl (active burrows only)

In addition, impacts to occupied burrowing owl burrows shall be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: (1) the birds have not begun egg laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

If burrowing owl are found to occupy the Project site, and avoidance is not possible, burrow exclusion may be conducted by qualified biologists only during the non-breeding season, before breeding behavior is exhibited, and after the burrow is confirmed empty through non-invasive methods (surveillance). Replacement of occupied burrows shall consist of artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1). Ongoing surveillance of the Project site during construction activities shall occur at a rate sufficient to detect burrowing owl if they return.

American Badger and Desert Kit Fox Natal/Pupping Season

- American Badger
  - Breeding Season: Late Summer – Early Fall
  - Pregnancy (Delayed Implantation): December through February
  - Pups are Born: March through April
  - Pup Dispersal: June through August
- San Joaquin Kit Fox
  - Mate Pairing: October through November
  - Mating: December through January (possibly into February)
  - Pups are Born: February or March
  - Pup Dispersal: July

American Badger and San Joaquin Kit Fox

- Potential or Atypical den: 50 feet
- Known den: 100 feet
- Natal or pupping den: 200 feet

MM BIO-3: If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys should be conducted 14 days prior to the start of construction at the construction site plus a 250-foot buffer (avoidance buffer) for songbirds and a 500-foot buffer for raptors (other than Swainson's hawk). The surveys should be phased with the construction of the Project. If no active nests are found, no further action is required.

However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress. If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 250 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. Full-time monitoring of an active nest may be needed when activities are occurring at the fringe of a buffer to determine whether activities are affecting nesting birds. Results of the monitoring may indicate a need to expand the size of avoidance buffer areas. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist should have the ability to stop construction if nesting adults show any sign of distress.

MM BIO-4: The following measures shall be implemented to reduce potential impacts to Swainson's hawk: Nesting surveys for the Swainson's hawks shall be conducted in accordance with the protocol outlined in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's hawk Technical Advisory Committee, 2011). If potential Swainson's hawk nests or nesting substrates are located within 0.5 miles of the Project site, then those nests or substrates must be monitored for activity on a routine and repeating basis throughout the breeding season, or until Swainson's hawks or other raptor species are verified to be using them. The protocol recommends that the following visits be made to each nest or nesting site: one visit from January 1–March 20 to identify potential nest sites, three visits from March 20–April 5, three visits from April 5–April 20, and three visits during June 10–July 30. To meet the minimum level of protection for the species, surveys shall be completed for at least the two survey periods immediately prior to Project-related ground-disturbance activities. If Swainson's hawks are not found to nest within the survey area, then no further action is warranted.

If Swainson's hawks are not found to be present, then no action is warranted. If Swainson's hawks are found to nest within the survey area, active Swainson's hawk nests shall be avoided by 0.5 miles during the nesting period unless this avoidance buffer is reduced through consultation with the CDFW and/or a qualified biologist with expertise in Swainson's hawk issues. If a construction area falls within this nesting area, construction must be delayed until the young have fledged (left the nest). The 0.5-mile radius no-construction zone may be reduced in size but in no case shall be reduced to less than 500 feet except where a qualified biologist concludes that a smaller buffer area is sufficiently protective. A qualified biologist must conduct construction monitoring on a daily basis, inspect the nest on a daily basis, and ensure that construction activities do not disrupt breeding behaviors.

MM BIO-5: The following avoidance and minimization measures should be implemented during all phases of the Project to reduce the potential for impacts. These are modified from the *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011b), but they can be applied equally to protect all three species.

a. Project-related vehicles should observe a daytime speed limit of 20 mph throughout the site in all Project areas, except on County roads and State and federal highways.
b. All Project activities should occur during daylight hours, but if work must be conducted at night, then a night-time construction speed limit of 10 mph should be established.
c. Off-road traffic outside of designated Project areas should be prohibited.
d. To prevent inadvertent entrapment of kit foxes or other animals during construction of the project, all excavated, steep-walled holes or trenches more than two feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps spaced at a minimum distance of 100 feet and constructed of earthen-fill or wooden planks should be installed.
e. Before holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the CDFW should be contacted before proceeding with the work.
f. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape.
g. All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes, American badgers, and burrowing owls before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the animal vacates the pipe of its own accord. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox, badger, or burrowing owl has escaped.
h. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Project site.
i. No pets, such as dogs or cats, should be permitted on the Project site unless permitted in accordance with the American Disabilities Act.
j. Project-related use of rodenticides and herbicides should be restricted.
k. A representative should be appointed by the Project proponent, who will be the contact source for any employee or contractor who might inadvertently kill or injure one of these species or who finds a dead, injured, or entrapped animal. The representative should be identified during the employee education program, and their name and telephone number should be provided to the CDFW.
l. Upon completion of the Project, all areas subject to temporary ground disturbances (including storage and staging areas, temporary roads, pipeline corridors, etc.) should be recontoured and revegetated to promote restoration of the area to pre-

project conditions following a revegetation plan approved by the County. An area subject to "temporary" disturbance means any area that is disturbed during the Project, but after Project completion, will not be subject to further disturbance and has the potential to be revegetated.

m. Any Project personnel who are responsible for inadvertently killing or injuring one of these species should immediately report the incident to their representative. This representative should contact the CDFW immediately in the case of a dead, injured, or entrapped kit fox, American badger, or western burrowing owl.
n. New sightings of American badger or western burrowing owl shall be reported to the CNDDB.

MM CUL-1: a) Prior to the issuance of building permits, a Cultural Resources Alert must be noted on any plans that require ground disturbing excavation that there is a potential to expose buried cultural resources; and b) If historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. Implementation of the mitigation measure below would ensure that the proposed Project would not cause a substantial adverse change in the significance of a historical resource.

MM CUL-2: The Project applicant shall retain the Santa Rosa Rancheria cultural staff to provide pre-construction Cultural Sensitivity Training to construction staff and any excavation contractor regarding the discovery of cultural resources and the potential for discovery during ground-disturbing activities, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. Evidence of compliance shall be submitted to the Kings County CDA prior to the ground-disturbing activity.

MM CUL-3: Prior to any ground disturbance, the Project applicant shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground-disturbing activities during both construction and decommissioning of the Project.

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MM CUL-4: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American

involvement, in the event of discovery of human remains, at the direction of the county coroner.

MM GEO-1: Prior to the issuance of building permits, preparation of a Geotechnical and Soils Report by a qualified registered civil engineer, based on soil borings or excavations, would be prepared to determine the potential for soils expansion and to prepare recommendations for corrective actions to mitigate potential damage to project structures due to potential soils expansion is required.

MM GEO-2: Prior to issuance of building permits, the District shall submit: (1) the approved Stormwater Pollution Prevention Plan (SWPPP) and (2) the Notice of Intent (NOI) to comply with the General National Pollutant Discharge Elimination System (NPDES) from the Central Valley Regional Water Quality Control Board. The requirements of the SWPPP and NPDES shall be incorporated into design specifications and construction contracts. Recommended best management practices for the construction phase may include the following:

- Stockpiling and disposing of demolition debris, concrete, and soil properly.
- Protecting existing storm drain inlets and stabilizing disturbed areas.
- Implementing erosion controls.
- Properly managing construction materials.
- Managing waste, aggressively controlling litter, and implementing sediment controls.

MM GEO-3: During any ground-disturbance activities, if paleontological resources are encountered, all work within 25 feet of the find shall halt until a qualified paleontologist, as defined by the Society of Vertebrate Paleontology *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (2010), can evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the Natural History Museum of Los Angeles County or another appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations, and fossil recovery may be required to mitigate adverse impacts from Project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, they shall be avoided to ensure no adverse effects or such effects must be mitigated. Construction in that area shall not resume until the resource-appropriate measures are recommended, or the materials are determined to be less than significant. If the resource is significant and fossil recovery is the identified form of treatment, then the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

MM HAZ-1: During the life of the Project, including decommissioning, the Project operator shall prepare and maintain a Hazardous Materials Business Plan (HMBP), as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 by submitting

all the required information to the California Environmental Reporting System (CERS) at http://cers.calepa.ca.gov/ for review and acceptance by the Kings County Environmental Health Services Department. The HMBP shall:

a. Delineate hazardous material and hazardous waste storage areas.
b. Describe proper handling, storage, transport, and disposal techniques including which routes will be used to transport hazardous materials.
c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill.
d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction and operation.
e. Establish public and agency notification procedures for spills and other emergencies including fires.
f. Describe federal, State, or local agency coordination, as applicable, and clean-up efforts that would occur in the event of an accidental release.
g. Include procedures to avoid or minimize dust from existing residual pesticides and herbicides that may be present on the site.

The Project proponent shall ensure that all contractors working on the Project are familiar with the facility's HMBP as well as ensure that one copy is available at the Project site at all times. In addition, prior to the issuance of building permits, a copy of the accepted HMBP from CERS shall be submitted to Kings County for inclusion in the Project's permanent record.

MM HAZ-2: FAA Obstruction Evaluation. Prior to issuance of a building permit, the developer shall provide evidence of a completed Obstruction Evaluation (Title 14, Code of Federal Regulations Part 77) by the Federal Aviation Administration.

MM HYD-1: Prior to the issuance of a building permit, the project proponent/operator shall complete a hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the project site. The study shall include, but is not limited to the following:

a. A numerical stormwater model for the Project site that evaluates existing and proposed (with Project) drainage conditions during storm events ranging up to the 100-year event.
b. The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the Project area that would result from Project implementation.
c. Engineering recommendations to be incorporated into the Project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the Project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite.

d. A specification that the final design of the solar arrays shall include one foot of freeboard clearance above the calculated maximum flood depths for the solar arrays or the finished floor of any permanent structures. Solar panel sites located within a 100-year floodplain shall be graded to direct potential flood waters without increasing the water surface elevations more than one foot or as required by Kings County's Floodplain Management Ordinance.
e. The hydrologic study and drainage plan shall be prepared in accordance with the Kings County Flood Damage Prevention Ordinance and Kings County Development Standards, and approved by the Kings County Public Works and the Kings County Community Development Agency prior to the issuance of building permits.

MM NSE-1: The following shall be implemented by the Project proponent for the duration of Project construction:

a. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site.
b. The construction contractor shall locate the pile driver such that the rear of the vibratory pile driver faces toward the noise-sensitive receptors when the machine is being utilized.
c. The construction contractor shall locate equipment staging in areas that will create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all Project construction.
d. The construction contractor shall ensure that all construction equipment is equipped with manufacturer-approved mufflers and baffles.
e. Project construction shall occur during the daytime hours (7:00 a.m. to 6:00 p.m. Monday through Friday).

MM NSE-2: Prior to the issuance of building permits, the following shall be implemented:

a. A Noise Disturbance Coordinator shall be identified. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. This would include but not be limited to ensuring construction activities start no earlier than 7:00 am and end no later than 6:00pm during the week, inspecting and maintaining equipment, and minimizing idling of trucks on site, etc.
b. A sign that is legible at a distance of 50 feet shall also be posted at the construction site throughout construction, which includes the contact information for the Noise Disturbance Coordinator.

SECTION 1 - INTRODUCTION

1.1 - Overview

Kings CSG, 1 LLC is requesting approval of Conditional Use Permit (CUP) 23-02 to allow for the construction and operation of a five-megawatt (MW) photovoltaic (PV) solar facility with battery storage capacity.

1.2 - California Environmental Quality Act

Kings County is the Lead Agency for this Project pursuant to the CEQA Guidelines (Public Resources Code Section 15000 et seq.). The Environmental Checklist Form (CEQA Guidelines Appendix G) or Initial Study (IS) (see *Section 3 – Initial Study*) provides an analysis that examines the potential environmental effects of the construction and operation of the Project. Section 15063 of the CEQA Guidelines requires the Lead Agency to prepare an IS to determine whether a discretionary project will have a significant effect on the environment. A Mitigated Negative Declaration (MND) is appropriate when an IS has been prepared and a determination can be made that no significant environmental effects will occur because revisions to the Project have been made or mitigation measures will be implemented that reduce all potentially significant impacts to less-than-significant levels. The content of an MND is the same as a Negative Declaration, with the addition of identified mitigation measures and a Mitigation Monitoring and Reporting Program (MMRP) (see *Appendix A – Mitigation Monitoring and Reporting Program*).

Based on the IS, the Lead Agency has determined that the environmental review for the proposed application can be completed with an MND.

1.3 - Impact Terminology

The following terminology is used to describe the level of significance of impacts.

- A finding of "no impact" is appropriate if the analysis concludes that the project would not affect a topic area in any way.
- An impact is considered "less than significant" if the analysis concludes that it would cause no substantial adverse change to the environment and requires no mitigation.
- An impact is considered "less than significant with mitigation incorporated" if the analysis concludes that it would cause no substantial adverse change to the environment with the inclusion of environmental commitments that have been agreed to by the applicant.
- An impact is considered "potentially significant" if the analysis concludes that it could have a substantial adverse effect on the environment.

1.4 - Document and Contents

The content and format of this IS/MND is designed to meet the requirements of CEQA. The report contains the following sections:

- *Section 1 – Introduction:* This section provides an overview of CEQA requirements, intended uses of the IS/MND, document organization, and a list of regulations that have been incorporated by reference.
- *Section 2 – Project Description:* This section describes the Project and provides data on the site's location.
- *Section 3 – Initial Study:* This section contains the evaluation of 21 different environmental resource factors contained in Appendix G of the CEQA Guidelines. Each environmental resource factor is analyzed to determine whether the proposed Project would have an impact. One of four findings is made, which include: no impact, less-than-significant impact, less than significant with mitigation, or significant and unavoidable. If the evaluation results in a finding of significant and unavoidable for any of the 21 environmental resource factors, then an Environmental Impact Report will be required.
- *Section 4 – List of Preparers:* This section identifies the individuals who prepared the IS/MND.
- *Section 5 – Bibliography:* This section contains a full list of references that were used in the preparation of this IS/MND.
- *Appendix A – Mitigation Monitoring and Reporting Program:* This section contains the Mitigation Monitoring and Reporting Program.

1.5 - Incorporated by Reference

The following documents and/or regulations are incorporated into this IS/MND by reference:

- 2035 Kings County General Plan
- 2035 Kings County General Plan EIR
- Kings County Development Code
- Kings County Airport Land Use Compatibility Plan
- Kings County Multi-Jurisidictional Multi-Hazards Emergency Plan
- California Building Code- Title 24

SECTION 2 - PROJECT DESCRIPTION

2.1 - Introduction

The applicant proposes to construct and operate a 5 MW photovoltaic (PV) solar facility with a Battery Energy Storage System (BESS) to generate and distribute renewable electrical energy (Project). The Project is consistent with the County General Plan and requires the approval of Conditional Use Permit (CUP) 23-02 to operate a solar facility within the AG-20 zone district. A non-renewal of a Williamson Act Land Use contract will also be required. There will continue to be an agricultural use on the property in the form of dryland crop cultivation and sheep grazing. A conceptual site plan can be found in Appendix B of this document.

2.2 - Project Location

The proposed Project is located at 17345 18th Avenue (APN 0042-110-380), Lemoore, Kings County California. The Project is bordered by 18th Avenue to the west and is south of Kansas Avenue. See Figure 2-1 nd Figure 2-2.

2.3 - Surrounding Land Uses

The Project site is located within a generally rural, agricultural area of the County. Surrounding land uses include dairies, cultivated crop production, undeveloped land, and other PV solar facilities.

2.4 - Proposed Project

Kings CSG 1 LLC proposes to develop an approximately five MW PV solar energy generation facility with a Battery Energy Storage System (BESS) and associated power line (the Project). A conceptual site plan of the Project is included in Appendix B.

The Project will generate renewable energy utilizing. Photovoltaic solar panels include a point of connection to the power grid at the Jacobs Substation, located immediately north of the Project parcel, which would be connected with a gen-tie of about 150 feet in length, which will be interconnected to the adjacent Pacific Gas & Electric distribution system.

Construction is anticipated to take approximately three to four months to complete.

The Project includes the approval of Conditional Use Permit No. 23-02, and the cancellation of a 40-acre portion of the Williamson Act Land Use contract.

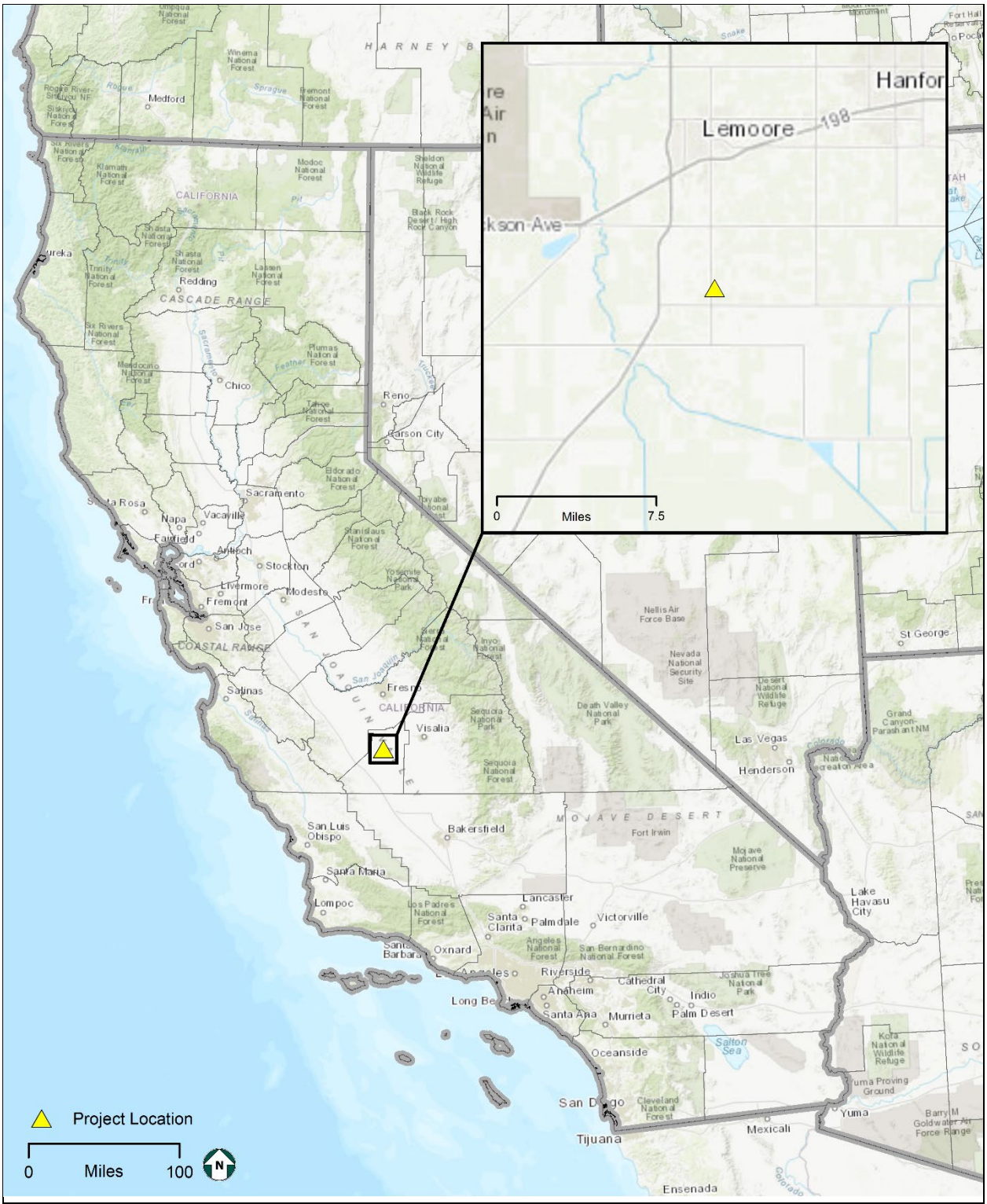

Figure 2-1
Regional Location

Figure 2-2
Vicinity Location Map

SECTION 3 - INITIAL STUDY

3.1 - Environmental Checklist

1. **Project Title:**

   Conditional Use Permit No. 23-02 – Kings CSG 1 Solar

2. **Lead Agency Name and Address:**

   Kings County Community Development Agency
   1400 W. Lacey Boulevard, Bldg. #6
   Hanford, CA 93230

3. **Contact Person and Phone Number:**

Noelle Tomlinson, Planner II
(559) 852-2697
Noelle.tomlinson@co.kings.ca.us

4. **Project Location:**

   17345 18th Avenue, Lemoore, CA 93245

5. **Project Sponsor's Name and Address**

   Kings CSG 1, LLC
   11100 Santa Monica Boulevard, Suite 780, Los Angeles, CA 90025

6. **General Plan Designation:**

   General Agriculture (AG-20)

7. **Zoning:**

   General Agricultural 20 Acre (AG-20)

8. **Description of Project:**

   See Section 2.4.

9. **Surrounding Land Uses and Setting:**

   Agricultural crop production, dairies, undeveloped land, solar facilities

10. **Other Public Agencies Whose Approval May Be Required:**

- San Joaquin Valley Air Pollution Control District (SJVAPCD)

- California Energy Commission
- California Public Utilities Commission
- CAISO

11. Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Assembly Bill 52 (AB 52) provides protections for tribal cultural resources. As of July 1, 2015, all lead agencies approving projects under CEQA are required, if formally requested by a culturally affiliated California Native American Tribe, to consult with such tribe regarding the impacts of a project on tribal cultural resources prior to the release of any negative declaration, mitigated negative declaration (MND) or a notice of preparation (NOP) for an environmental impact report (EIR). Under Public Resources Code (PRC) Section 21074, tribal cultural resources include site features, places, cultural landscapes, sacred places or objects that are of cultural value to a tribe that are eligible or listed on the California Register of Historical Resources (CRHR) or a local historic register or that the lead agency has determined to be a significant tribal cultural resource.

Tribal consultation is to continue until mitigation measures are agreed to, unless the tribe or the lead agency concludes in good faith that an agreement cannot be reached. In the case of agreement, the lead agency is required to include the mitigation measures in the environmental document along with the related Mitigation Monitoring and Reporting Program (MMRP)(see PRC Section 21084.3). If no agreement is reached, the lead agency must still impose all feasible measures necessary for a project to avoid or minimize significant adverse impacts on tribal cultural resources (PRC Section 21084.3).

Since the adoption of AB 52 in 2015, no California Native American Tribes have requested in writing to be listed on Kings County's AB 52 project notification list. Therefore, no tribes were consulted pursuant to AB 52, and the AB 52 consultation process with respect to the Kings CSG 1 Solar Project is deemed complete.

However, the County regularly coordinates with the Santa Rosa Rancheria Tachi Yokut Tribe which is the tribe traditionally and culturally affiliated with the project area. Notification of the Project was sent to the Santa Rosa Rancheria Tachi Yokut Tribe on May 23, 2023, and no response has been received to this date. Previously, the tribal representatives have provided the County staff with recommended mitigation measures for protection of tribal cultural resources, which have been incorporated in full in Mitigation Measures CUL-1 through CUL-4 in Section 3.4.5. Cultural Resources. Although the Project would not result in potentially significant impacts to known tribal cultural resources, there is always the possibility that previously undiscovered tribal cultural resources are present within the Project Site. With the implementation of Mitigation Measures CUL-1 through CUL-4, the impact to tribal cultural resources would be reduced to less than significant.

3.2 - Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

3.3 - Determination

On the basis of this initial evaluation:

☐ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENT IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature	8/9/2023 Date
Noelle Tomlinson Noelle Tomlinson Printed Name	Kings County Community Development Agency For

3.4 - Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-Than-Significant Impact." The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a

previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   a. The significance criteria or threshold, if any, used to evaluate each question; and

   b. The mitigation measure identified, if any, to reduce the impact to less than significant.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.1 - AESTHETICS					
Except as provided in Public Resources Code Section 21099, would the Project:					
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	☒
c.	In non-urbanized areas, 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 point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d.	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion

Impact #3.4.1a – Except as provided in Public Resources Code Section 21099, would the Project have a substantial adverse effect on a scenic vista?

The Project is located in rural Kings County and is surrounded by agricultural lands on all sides. There are existing solar facilities located within a half mile of the Project site.

Several scenic resources represent the aesthetic visual character of the County: the waterways that traverse the northern edge of the County (Kings River and Cross Creek), the foothills and mountains along the southwest edge of the County (Kettleman Hills and Coast Ranges), and the viewsheds along the southern portions of State Route (SR) 41, between SR 33 and the County line. Valley oak trees existing along the Kings River corridor are also considered a valued scenic resource (Kings County, 2010). The Project is not located near any of these scenic resources as identified in the Kings County General Plan; therefore, the Project would not result in any significant impacts on any scenic vistas.

Scenic vistas consist of expansive, panoramic views of important, unique, or highly valued visual features that are seen from public viewing areas. This definition combines visual

quality with information about view exposure to describe the level of interest or concern that viewers may have for the quality of a particular view or visual setting. The Project site consists of essentially flat agricultural land with no topographic variation or features to provide visual interest of vantage points for panoramic views. The Kings County General Plan does not identify any scenic vistas in the vicinity of the Project site. The Project site is adjacent to agriculture.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

Impact #3.4.1b - Except as provided in Public Resources Code Section 21099, would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

The Project site does not contain any scenic resources or rock outcroppings. There are no scenic highways designated in Kings County. The closest eligible scenic highway is SR 41, southwest of SR 33, which is approximately 30 miles southwest of the Project site. There are no designated State scenic highways within the vicinity of the Project site, therefore, the Project would not damage any scenic resources near a State scenic highway (Kings County, 2010), and impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

Impact #3.4.1c - Except as provided in Public Resources Code Section 21099, would the Project in non-urbanized areas, 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 point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

The Project site is undeveloped agricultural land with existing solar facilities within a half mile of the property. The site will not be readily visible to passing motorists driving on heavily traveled roadways. Solar panels will be installed so the visual character will change from undeveloped agricultural land to a more industrial character. The Project would install solar modules, with a maximum height of eight feet, and associated electrical equipment surrounded by a chain link fence. Given the existing visual character and quality of the public views of the area with large-scale agriculture operations, dairies, and existing solar facilities,

the proposed Project would alter, but not substantially degrade the existing visual character or quality of public views of the Project site and its surroundings. Thus, impacts related to the visual degradation of the site and vicinity would be less than significant However, given the rural nature of the area, the impacts would be considered less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.1d - Except as provided in Public Resources Code Section 21099, would the Project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Lighting

Construction of the Project would generally occur during daytime hours, depending on the time of year. No overnight construction would occur. In the event that work is performed between dusk and 9:00 p.m., the construction crew would only use the minimum illumination needed to perform the work safely. All lighting would be directed downward and shielded to focus illumination on the desired work areas only and to prevent light spillage onto adjacent properties.

Once operational, the Project will use dark PV solar panels, which are specifically designed to absorb rather than reflect sunlight. The proposed Project could include small domestic light fixtures at equipment pads, as required by relevant electrical codes. No other lighting is planned. Cutoffs would be employed to prevent spillover onto neighboring properties. With the application of these typical designs, impacts related to lighting would be less than significant.

Glare

Most of the Project's construction activities are planned to occur during daylight hours. Increased truck traffic and the transport of solar arrays and construction materials to the Project site would temporarily increase glare conditions during construction. However, this increase in glare would be minimal and temporary. Construction activity would occur on focused areas of the site as construction progresses and any sources of glare would not be stationary for a prolonged period of time. Additionally, the surface area of construction equipment would be minimal compared to the scale of the Project site. Therefore, the construction of the proposed Project would not create a new source of substantial glare that would affect daytime views in the area. Impacts would be less than significant during the construction period.

During operations, the reflection of sunlight would be the primary potential producer of glare off the glass surfaces of the solar panels in the proposed Project. A PV solar panel comprises numerous solar cells. A solar cell differs from a typical reflective surface in that it has a microscopically irregular surface designed to trap the rays of sunlight for the purposes of energy production. The intent of solar technology is to increase efficiency by absorbing as much light as possible, which further reduces reflection and glare. Additionally, glare effects would be further reduced by intervening elements in the immediate viewshed, such as vegetative screening created by existing vegetation, which would obstruct views of the panels. Based on these factors, the Project would result in less-than-significant impacts related to glare.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact

3.4.2 - AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:

a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☒	☐	☐
b.	Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☒	☐	☐
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?	☐	☐	☐	☒
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Discussion

Impact #3.4.2a – Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project site has previously been used for agricultural purposes and is zoned as General Agriculture (AG-20). The site is designated as Farmland of Statewide Importance according

to the most recent mapping prepared by the California Department of Conservation's Farmland Mapping and Monitoring Program (California Department of Conservation, 2023). Development of the proposed Project would result in the conversion of the Project to a utility-scale solar generation land use.

Mitigation Measures MM AG-1 and MM AG-2 are proposed to reduce impacts related to the conversion of agricultural lands to non-agricultural uses. The proposed Project would have a lifespan of 30 to 35 years. Although the possibility exists that the Project site would be restored to support agricultural production in the future should the solar generating facility be removed, for purposes of this analysis, it is assumed that the site would not be converted back to farmland. Therefore, given the above analysis, it is concluded that the Project would convert 40 acres of Farmland of Statewide Importance to nonagricultural use. The loss of 40 acres of Farmland is considered a potentially significant impact. Mitigation Measure MM AG-1 would require the Project proponent to mitigate the loss of agricultural land at a ratio of 1:1 for land of similar agricultural quality or higher. The mitigation would require reserving land for exclusively agricultural purposes for the life of the Project, and the land that would be placed under a farmland easement as a result of the mitigation. Implementation of MM AG-1 would reduce impacts to less than significant levels.. Mitigation Measure MM AG-2 requires the establishment of financial assurances so that if the applicant fails to perform comply with the Vegetation and Agricultural Management Plan, then the site can be cleared of all improvements and returned to its original state available for agricultural uses as outlined in the Soil Reclamation Plan within 18 months of decommissioning the solar facility.

Mitigation Measure MM AG-3 requires the establishment of financial assurances so that if the applicant fails to perform pursuant to the Agricultural Management Plan, then the site can be cleared of all improvements and returned to its original state available for agricultural uses as outlined in the Soil Reclamation Plan. Mitigation Measure MM AG-4 requires the preparation of a Solid Waste Management Plan pursuant to Section 1112.B.2.g of the County Development Code to ensure that solid waste generated during Project construction and operation is properly disposed of and/or recycled. With implementation of the proposed mitigation measures, potentially significant impacts to farmland would be reduced to a level of less than significant.

Implementation of the proposed mitigation measures would require that the agricultural viability of the site is maintained after decommissioning. With implementation of the proposed mitigation, potentially significant impacts to farmland would be reduced to a level of less than significant.

MITIGATION MEASURE(S)

MM AG-1: Prior to issuance of a building permit, the project proponent shall provide written evidence of completion of the following measures to the Kings County Community Development Agency to mitigate the loss of agricultural land at a ratio of 1:1 for net acreage before conversion for the life of the Project.

a) Cancel the existing Williamson Act land conservation contracts for the project footprint; and

b) Mitigate for the loss of Farmland of Statewide Importance at a ratio of 1:1 with restrictive covenants. The agricultural land preserved under the restrictive covenants shall be of equal or greater quality as defined by the California Department of Conservation's Farmland Mapping and Monitoring Program (i.e, if Farmland of Statewide Importance is converted to solar then the agricultural land preserved must not be in a classification indicating a lower quality than Farmland of Statewide Importance).

MM AG-2: Prior to the issuance of a building permit, the applicant shall submit, for review and approval by the Kings County Community Development Agency, a Soil Reclamation Plan (Plan) for the restoration of the site at the end of the Project's useful life. The Plan shall contain an analysis of pre-project general pre-construction conditions of the Project site, and the site shall be photographically documented by the applicant prior to the start of construction. The Plan shall contain specific measures to restore the soil to approximate its pre-project condition within 18 months of the Project's decommissioning. The Plan shall include (1) removal of all above-ground and below-ground project fixtures, equipment, and non-agricultural driveways, (2) tilling to restore the subgrade material to a density and depth consistent with its pre-project condition, (3) revegetation using a Kings County-approved grasses and forbs seed mixture designed to maximize revegetation with noninvasive species shall be broadcast or drilled across the Project site, and (4) application of weed-free mulch spread, as needed, to stabilize the soil until germination occurs and young plants are established to facilitate moisture retention in the soil. Whether the Project area has been restored to pre-construction conditions shall be assessed by Kings County staff. Additional seedlings and applications of weed-free mulch shall be applied to areas of the Project.

MM AG-3: Prior to the issuance of a building permit, the developer shall post a performance or cash bond, submit a Certificate of Deposit, submit a letter of credit, or provide such other financial assurances acceptable to the County, in an amount provided in an Engineer's Cost Estimate, approved by the CDA, to ensure completion of the activities under the Soil Reclamation Plan. An updated Engineer's Cost Estimate shall be submitted to the CDA every five years to determine if the financial assurance instrument is still adequate to cover the Soil Reclamation Plan. If after review the financial assurances are determined to be inadequate, then the financial assurance shall be adjusted.

MM AG-4: To ensure that solid waste generated during project construction, operation, and decommissioning is properly disposed of or recycled, prior to issuance of building permits, the applicant shall prepare a Solid Waste Management Plan acceptable to the County pursuant to Section 1112.B.2.g of the Development Code. The nonhazardous waste generated during construction and operation will be segregated on-site for recycling or disposal at a Class III landfill. Hazardous wastes generated during project construction, operation, and decommissioning will be either recycled or disposed of at a Class I disposal facility, as required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.2b – Would the Project conflict with existing zoning for agricultural use or a Williamson Act contract?

The site is zoned AG-20. Article 4 of the Kings County Development Code allows for solar energy electrical generators within the General Agriculture zone with the approval of CUP 23-02. In addition, the General Plan encourages the development of alternative energy sources by tailoring its zoning and subdivision ordinances and building standards to reflect alternative energy guidelines published by the California State Energy Commission.

According to the County of Kings Agricultural Preserves Williamson Act Map (2013), the parcel is subject to a Williamson Act contract. The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting the use of those lands to agricultural or compatible uses. There are two types of contracts available, including Land Conservation contracts, which have a term of 10 years, and Farmland Security Zone contracts, which have a term of 20 years. The Williamson Act stipulates that local governments adopt rules governing the administration of agricultural preserves, including rules related to compatible uses, provided the rules are consistent with the following principles of compatibility (Gov. Code Section 51231).

Gov. Code Section 51238.1 (a) states uses approved on contracted lands shall be consistent with all of the following principles of compatibility:

(1) The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in agricultural preserve.

(2) The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations on the subject contracted parcel or parcels may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping.

The operation of a PV solar facility is not considered consistent with a Williamson Act land use contract. The applicant will file a petition for cancellation of the contracts pursuant to Section 51282(a)(1) that the cancellation is consistent with the purposes of the Williamson Act findings and Section 51282(a)(1), requiring that the cancellation be in the public interest. The lead agency notes that a Williamson Act contract cancellation is an option under the limited circumstances and conditions set forth in Government Code Section 51280 et seq. In such cases, landowners may petition a board/council for Williamson Act contract cancellation. The board/council may grant tentative cancellation only if it makes the

required statutory findings (Government Code Section 51282(a)). To determine that the cancellation is in the public interest, the board/council must find (1) that other public concerns substantially outweigh the objectives of the Williamson Act and (2) that there is no proximate noncontracted land that is both available and suitable for the proposed use or that development of the contracted land would provide more contiguous patterns of urban development (Government Code Section 51282(c)). The Kings County Board of Supervisors will consider the petitions for early cancellation of the Williamson Act land use contracts and make a determination based on the data offered.

An analysis of proximate parcels to substantiate the findings necessary to cancel the contract was prepared, and is included in Appendix C of this document. The analysis shows that no noncontracted properties are available within the vicinity of the Project. The close proximity of the POI and PG&E substation makes the proposed Project parcel ideal for the development of a solar facility. According to available records, there are seven parcels within a 1-mile radius of the Project site that are not under Williamson Act contract (Figure 3). All the adjacent parcels are themselves subject to a land use contract and therefore are not more suitable for solar development. In addition, based on available property owner data, the majority of these parcels are also owned by the Santa Rosa Rancheria Indian Community or the US Department of the Interior- Bureau of Indian Affairs. Thus, these parcels are not available for sale to a private solar developer. It is also noted that the limitation of reliable water availability and impairment of soil quality due to high salinity makes the Project site ill suited for sustaining long-term agricultural crop production, and a reasonably foreseeable agricultural use.

Although there are parcels in a one-mile radius that could accommodate the Project, there are also environmental factors that could negatively impact the Project's viability should it be sited on the identified parcels. These factors include the location of the POI and development of a generation tie line, and environmental impacts including the presence of wetlands, wildlife species habitat, or agricultural use. Additionally, the Project proponent has no site control over any other property in the area to develop the solar facility. If a different site were to be chosen, it would require long-term negotiations between the property owners, energy providers, and approvals from the County.

This analysis supports justification for supporting the cancellation based on the required public benefit findings. The analysis also points to public concerns related to energy supply, water availability, energy security, global climate change as well as the economic benefits within Kings County. Therefore, cancellation of the Williamson Act contracts would substantially outweigh the objectives of the Williamson Act. As such, the finding set forth in Government Code Section 51282(c)(1) will be prepared.

The long-term productive agricultural capability of the Project site after decommissioning of the solar generating facility would be ensured through implementation of Mitigation Measure MM AG-2 which requires implementation of a Soil Reclamation Plan and contains detailed provisions on decommissioning, soil conditioning, revegetation, waste disposal, monitoring, and follow-up measures to ensure that the site has been effectively restored to pre-project conditions. Mitigation Measure MM AG-3 requires the provision of financial

assurances for implementation of the Soil Reclamation Plan and Mitigation Measure MM AG-4 requires compliance with a Solid Waste Management Plan, that would reduce potential impacts.

Solar facility operations would generally involve low levels of on-site activity consisting mainly of occasional visits by maintenance crews, and periodic visits by panel cleaning and vegetation maintenance crews. Traffic generation would be very light, thus minimizing the potential for conflicts with agricultural vehicles and equipment on public roadways. Dust generation during Project operations would not occur since the Project would include no exposed soils that could be mobilized as windborne dust and would be covered by impervious surfaces of equipment pads, battery storage facilities, and the paved Project entries and parking areas.

Article 11, Section 1112.B.2 of the Kings County Development Code requires that the granting of CUPs for solar PV electrical facilities shall be subject to certain specified findings. Failure to meet the required findings would result in a potentially significant impact related to compatibility with the agricultural zoning designation. As such, the required findings, and the Project's consistency with the findings, are addressed below.

a. The proposed site shall be located in an area designated as either "Very Low Priority," "Low Priority," or "Low-Medium Priority" land according to Figure RC-13 Priority Agricultural Land (2035 Kings County General Plan, Resource Conservation Element, Page RC-20). "Medium Priority" land may be considered when comparable agricultural operations are integrated, the standard mitigation requirement is applied, or a combination thereof.

   The General Plan Resource Conservation Element (Figure RC-13) shows that the Project site is mapped as "Medium" Priority (Kings County, 2010). As noted in the Development Code finding, lands designated as "Medium Priority" may be considered for solar PV facilities when comparable agricultural operations are integrated or mitigation is applied, or a combination. Mitigation Measure MM AG-1 would require the Project proponent to mitigate the loss of agricultural land at a ratio of 1:1 for land of similar agricultural quality or higher. The mitigation would require reserving land for exclusively agricultural purposes for the life of the Project, and the land that would be placed under a farmland easement as a result of the mitigation. . Therefore, with implementation of the proposed mitigation, potential impacts would be reduced to below a level of significance.

b. The proposed site shall be located within one mile of an existing 60 kV or higher utility electrical line. Small community commercial solar projects (less than or equal to three MW) may be located more than one mile from a 60 kV or higher transmission line subject to the following findings:

   - The Project site is located on low or very low-priority farmland.
   - The Project site is not restricted by a Williamson Act or Farmland Security Zone contract.

- The Project will connect to existing utility infrastructure without building new power lines.
- The Project will not result in any additional easements on agricultural land, other than access easements or easements within the public right-of-way.

An existing 12 kV utility line is located on 18th Avenue, approximately 150 feet north of the Project site.

c. Agricultural mitigation shall be proposed for every acre of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance converted for a commercial solar facility. The agricultural mitigation shall preserve at a ratio of 1:1 an equal amount of agricultural acreage of equal or greater quality in a manner acceptable to the County for the life of the Project. Agricultural mitigation on land designated "Medium-High" or higher priority land shall preserve an equivalent amount of agricultural acreage at a ratio of 2:1.

The entire Project site is mapped as Farmland of Statewide Importance under the FMMP. However, under Mitigation Measure MM AG-1 would require the Project proponent to mitigate the loss of agricultural land at a ratio of 1:1 for land of similar agricultural quality or higher. The mitigation would require reserving land for exclusively agricultural purposes for the life of the Project, and the land that would be placed under a farmland easement as a result of the mitigation for the life of the Project. Mitigation Measures MM AG-2 and MM AG-3 would ensure that soils of the Project site are reclaimed to pre-project conditions upon decommissioning of the solar facility. With the proposed mitigation, this finding would be satisfied.

d. The Project shall include a reclamation plan and financial assurance acceptable to the County that ensures the return of the land to a farmable state after completion of the project life and retains surface water rights.

As discussed above, Mitigation Measures MM AG-2 and MM AG-3 would require a Soil Reclamation Plan and Financial Assurance that ensures the return of the land to a farmable state after completion of the Project life and retains surface water rights. An updated Engineer's Cost Estimate shall be submitted to the CDA every five years to determine if the financial assurance instrument is still adequate to cover the Soil Reclamation Plan. If after review the financial assurances are determined to be inadequate, then the financial assurance shall be adjusted. The soil reclamation plan and financial assurance would be subject to approval by the County Community Planning Agency prior to the issuance of building permits. Based on these facts, the Project would satisfy this finding.

e. The Project shall include a Pest Management Plan and Weed Abatement Plan to protect adjacent farmland from nuisances and disruption. As required under the County Development Code, the Project would include implementation of a Pest Management and Weed Abatement Plan. The Pest Management Plan would reduce the potential for pests to inhabit the Project site. The Pest Management Plan would set action thresholds, identify pests, specify prevention methods as a first course of

action, specify control methods as a second course of action, and establish a quantitative performance goal of nuisance reduction to adjacent farmland. Rodenticide would be selected and used in a manner that minimizes impacts to protected biological species.

The Weed Abatement Plan would specify that native seed mixes used to revegetate the Project site are free of weeds. The plan would also ensure that combustible vegetation on and near the Project boundary would be actively managed during the construction and operational phases to minimize fire risk. Vegetation height would be kept low to the ground through sheep grazing and by mowing and trimming with mechanical equipment. Herbicides would be applied if warranted by site conditions as specified in the Weed Abatement Plan but would be restricted to those considered environmentally safe. Since the Project would implement these measures under the Pest Management Plan and Weed Abatement Plan for the Project, this standard would be met.

f. The Project shall space internal access driveways per Kings County Fire Department standards.

   As shown in Appendix B- Site Plan, the Project includes internal access driveways with a minimum width of 20 feet and would be maintained to facilitate on-site circulation for emergency vehicles during all weather conditions. Therefore, the Project would conform to this standard.

g. The Project shall include a Solid Waste Management Plan for site maintenance and disposal of trash and debris.

   To satisfy this finding, a Solid Waste Management Plan would be prepared for the Project to prescribe internal procedures for site maintenance and collection and disposal of solid waste during project construction, operation, and decommissioning per Mitigation Measure MM AG-4.

h. The Project site shall not be located on Williamson Act or Farmland Security Zone contracted land unless it meets the principles of compatibility under Gov. Code Section 51238.1(a). Otherwise, the contract shall be proposed for cancellation.

As discussed above, the developer will submit a petition to cancel a 40 acre portion of the Williamson Act contract for the public benefit, which would be imposed as a Condition of Approval for CUP 23-02. As such, the proposed Project would satisfy all of the Williamson Act principles of compatibility, as further defined by the Resolution of the Kings County Board of Supervisors, for land use proposed for lands under Williamson Act contracts. In summary, the proposed Project is consistent with the zoning for the site and would satisfy all of the specific findings required in the Kings County Development Code for the granting of CUPs for solar generating facilities. With implementation of the proposed mitigation, potentially significant impacts would be reduced to a level of less than significant.

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM AG-1 through MM AG-4.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.2c – Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?

There is no forest land, timberland, or timberland-zoned timberland production on the Project site or the surrounding area. The property is devoid of trees, and therefore, the Project would not result in the loss of forest or timberland land or the conversion of forest land to non-forest use.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

Impact #3.4.2d – Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

See discussion of Impact #3.4.2c above. Currently, the Project site is undeveloped agricultural land.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

Impact #3.4.2e – Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The Project site is zoned AG-20, as are the surrounding properties. Farmland conversion is caused primarily by urbanization; other chief causes for the loss of Farmland include the development of low-density rural residences and ecological restoration projects, such as wetlands and wildlife habitat (County of Fresno, 2020). The proposed Project does not fall

into either of these categories and would not result in any new infrastructure that could promote growth or remove development barriers. Furthermore, the Project is not physically able to expand its footprint to the surrounding parcels for technical reasons; the Project's approved interconnection capacity to the PG&E grid is limited to its current footprint. As such, there is no possibility of expanding the Project to other adjacent parcels and therefore no possibility that this Project could result in adjacent lands converting to a non-agricultural use.

Finally, several of the adjacent or nearby parcels are designated as Farmland of State Importance and are also under Williamson Act contracts. These parcels would be required to remain in agricultural use for at least a 10-year period unless the contracts are petitioned for cancellation by the landowners, subject to approval by the County Board of Supervisors. Conversion of these parcels to non-agricultural use would therefore require further discretionary review and approval before they could be taken out of agricultural use, which would be speculative to assume at this time, as there are no pending applications for such actions. As noted above, this project will not be a trigger for any potential additional conversion request due to restrictions on expansion of its physical footprint. Therefore, impacts related to conversion of agricultural lands to non-agricultural uses would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact

3.4.3 - AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:

a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard?	☐	☐	☒	☐
c.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion

An Air Quality and Greenhouse Gas Impact Analysis was prepared for the Project (QK, 2023a) and is included in Appendix D.

Impact #3.4.3a – Would the Project Conflict with or obstruct implementation of the applicable air quality plan?

The SJVAB is designated nonattainment of State and federal health-based air quality standards for ozone and $PM_{2.5}$. The SJVAB is designated nonattainment of State PM_{10}. To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- 2016 Ozone Plan.
- 2007 PM_{10} Maintenance Plan and Request for Redesignation.
- 2016 Moderate Area Plan for the 2012 Standard $PM_{2.5}$.

The SJVAPCD's AQAPs account for projections of population growth and vehicle miles traveled (VMT) provided by the Council of Governments (COG) in the SJVAB and identify strategies to bring regional emissions into compliance with federal and State air quality standards. It is assumed that the existing and future pollutant emissions computed in the AQAPs were based on land uses from area general plans that were prepared prior to the AQAPs' adoption. Because population growth and VMT projections are the basis of the

AQAPs' strategies, a project will conflict with the plans if it results in more growth or VMT than the plans' projections.

The primary air pollutants that would be emitted by the Project include ozone (O_3) precursors (NOx and ROG), carbon monoxide (CO), and suspended particulate matter (PM_{10} and $PM_{2.5}$). Other regulated (or "criteria") pollutants, such as lead (Pb) and sulfur dioxide (SO_2), would not be substantially emitted by the proposed Project or Project-generated traffic, and air quality standards for them are being met throughout the San Joaquin Valley Air Basin.

However, regardless of the level of significance, all projects within SJVAPCD's jurisdiction are required to implement applicable rules and regulations. Therefore, all construction-related activities would be required to comply with Regulation VIII in order to comply with the applicable air quality plan's mitigation assumptions. Because Regulation VIII is not contained in the Project design features, it is possible that construction activities could be potentially significant without implementation of Regulation VIII.

In order to reduce emissions of ozone precursors (i.e., ROG and NOx) and PM_{10} from new land use development projects, and achieve the attainment plans for each pollutant, the SJVAPCD adopted the Indirect Source Review Rule (ISR or Rule 9510) in 2005. The rule requires projects to reduce both construction and operational period emissions by specified amounts by applying the SJVAPCD-approved mitigation measures and/or paying fees to support off-site mitigation programs that reduce emissions. Fees apply to the unmitigated portion of the emissions and are based on estimated costs to reduce the emissions from other sources plus expected costs to cover administration of the program. Off-site emission reduction projects to be funded through ISR include retrofitting heavy-duty engines, replacing agricultural machinery and pumps, paving unpaved roads and road shoulders, trading out combustion-powered lawn and agricultural equipment with electrical and other equipment, as well as a number of other projects that result in quantifiable emissions reductions of PM_{10} and NOx. In accordance with ISR, the Project applicant will submit an application for approval of an Air Impact Assessment (AIA) to the SJVAPCD.

The Project will not result in population growth nor create excessive VMT. Construction of the Project is expected to be approximately three months and the majority of the crew will be from the local area. Once constructed, the solar facility will be monitored remotely, with minimal routine maintenance conducted. As the Project would be unmanned and therefore not generate any daily operational traffic, beyond occasional visits by security and maintenance staff, the Project would not impede the implementation of any measures in the plan.

While the proposed Project is not specifically identified in the County's General Plan, it would not generate new homes or significant employment opportunities that would change the County's population projections, and the proposed land use is conditionally permitted within the existing. The solar power generation system of the proposed Project could also function to reduce the air pollutant emissions within the SJVAB to the extent that the power generated is used to offset power production from fossil-fueled power plants within (or contribute to) the SJVAB. This power production is not projected within the existing air quality plans, so

the solar facility could further aid in reducing air pollutant emissions and increase the potential. Additionally, the Project would generate a negligible amount of operational-period traffic to the site.

The proposed Project is anticipated to operate for 30 to 35 years, after which the land would be converted to other uses. At such time as the facility is decommissioned, equipment operation and site restoration activities would result in impacts to air quality. Short-term decommissioning emissions are anticipated to be less than short-term construction emissions due to labor being less intensive, materials being recycled or discarded locally without additional transport, and equipment in future years having significantly lower emissions than current equipment.

As the estimated construction, operational, and decommissioning emissions from the proposed Project would be less than significant, no specific mitigation measures would be required. However, to ensure that the proposed Project is in compliance with all applicable SJVAPCD rules and regulations and emissions are further reduced, the applicant would be required to implement and comply with a number of measures by regulation that would result in further emission reductions through their inclusion in Project construction and long-term design. These measures would be required for decommissioning activities.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant.*

Impact #3.4.3b – Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard?

The SJVAPCD has adopted maximum emission thresholds (tons per year) for the criteria pollutants during construction and operation of a project which can be seen in Table 3.4.3-1. While incremental regional air quality impacts of an individual project are generally very small and difficult to measure, SJVAPCD's regional maximum emission thresholds set standards to reduce the burden of SJVAPCD to attain and maintain ambient air quality standards.

The facility will be unmanned during operations, with only occasional site visits for security, maintenance, and repairs. A maintenance crew would access the site about once a month and 5-10 panel washers would be utilized once a quarter. The Project conservatively analyzed one trip a day to account for the irregular trips. The Project intends to use BESS facilities. The BESS system would be connected to the power grid and could be charged by the Project and/or charged by energy from the electrical grid. The BESS facilities would not have any additional mobile trips, solid waste, or water usage attributed to them. The BESS operation emissions were calculated using CalEEMod.

At such time as the Project is decommissioned, equipment operation and site restoration activities would result in impacts to air quality. Given the assumption that much of the construction equipment necessary to construct the Project would also be required to decommission the site, it is reasonable to assume that decommissioning activities would be similar in nature to activities associated with construction of the Project. It should be noted that this does not take into account any future improvement in technology or subsequent reductions in air emissions. Project decommissioning is projected to be approximately the same time in duration (approximately three to four months) as construction. Therefore, decommissioning is assumed to be the same as the predicted construction emissions.

Table 3.4.3-1
SJVAPCD Emissions Significance Thresholds

Air Pollutant	Maximum Emissions (tons/years)	
	Construction	Operation
ROGs	10	10
NOx	10	10
CO	100	100
SOx	27	27
PM_{10}	15	15
$PM_{2.5}$	15	15

Source: Appendix C

Table 3.4.3-2 shows emissions generated during construction and Table 3.4.3-3 shows operational emissions.

Table 3.4.3-2
Construction Emission Estimates

Construction Activity	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
2021	0.16	1.43	1.21	0.00	0.37	0.18
SJVAPCD Significance Thresholds	10	10	100	27	15	15
Threshold Exceeded?	No	No	No	No	No	No

Table 3.4.3-3
Operational Emission Estimates

Operational Activity	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Area	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.01	0.00	0.00	0.00
Total Project Operational Emissions	0.00	0.00	0.01	0.00	0.00	0.00
SJVAPCD Significance Thresholds	10	10	100	27	15	15
Threshold Exceeded?	No	No	No	No	No	No

As shown in the tables above, none of the significance thresholds are exceeded during construction or operations. Therefore, a less-than-significant impact related to the violation of an air quality standard or a substantial contribution to an existing or projected air quality violation would occur from implementation of the proposed Project.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.3c – Would the Project expose sensitive receptors to substantial pollutant concentrations?

According to the SJVAPCD 2015 *Guidance for Assessing and Mitigating Air Quality Impacts*, sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential dwelling unit(s). The location of sensitive receptors is needed to assess toxic impacts on public health. The closest potentially sensitive receptor is a single-family residential home that is about 250 feet away the Project boundary. The Project would not exceed any applicable criteria pollutant thresholds during construction and ongoing operational activities. Therefore, the potentially sensitive receptors would not experience a significant air quality impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.3d – Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The Project site is surrounded by similar agricultural uses and operations. In the GAMAQI, Table 6: Screening Levels for Potential Odor Sources lists the following land uses that are generally associated with odor complaints:

- Wastewater Treatment Facilities
- Sanitary Landfill
- Transfer Station
- Composting Facility
- Petroleum Refinery
- Asphalt Batch Plant

- Chemical Manufacturing
- Fiberglass Manufacturing
- Painting/Coating Operations
- Food Processing Facility
- Feed Lot/Dairy
- Rendering Plant

The Project does not fit under any of those land uses; therefore, the distance thresholds do not apply. Potential odor sources could occur during construction with the usage of construction equipment. Standard construction equipment would reduce the odor from the exhaust and would be temporary and intermittent. The operation of the Project would consist of routine maintenance work and sporadic panel washing that do not contribute any substantive odors. Finally, the Project would be required to comply with the SJVAPCD Rule 4102 to prevent occurrences of public nuisances. Therefore, with compliance with Rule 4102 and the temporary nature of odor-causing construction activities, the Project would have a less-than-significant odor impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.4 - BIOLOGICAL				
Would the Project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. 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?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan?	☐	☐	☐	☒

Discussion

A reconnaissance survey of the Project site was conducted and Biological Assessment (QK, 2023b) was prepared for the Project, which can be found in Appendix E.

General Site Conditions

The parcel is situated at approximately 195 feet elevation within the San Joaquin Valley. Agricultural production land use surrounds the study area. The town of Stratford is approximately three miles to the southwest. The road that borders the site, 18th Avenue, is paved. Power lines border the site to the west. All the surrounding parcels are under active agricultural production. The 119-acre study area consists of highly disturbed agricultural lands. There is no evidence of recent disking within or adjacent to the site, per the site visit or aerial photo review. The active production of grain sorghum is the dominant vegetation on the site. No stick nests that could support nesting of this species were present within 500 feet of the Project site, but suitable nesting substrates were present in the tree canopy of surrounding native and ornamental trees and in the immediate vicinity.

The soils consist of Grangeville sandy loam saline-alkali, Boggs sandy loam, partially drained, and Lakeside loam, partially drained. Existing vegetation is non-native annuals and annual grasses.

Impact #3.4.4a – Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

A review of relevant database and literature sources, including the California Natural Diversity Database (CNDDB 2023), maintained by the California Department of Fish and Wildlife (CDFW), the California Native Plant Society's Rare Plant Program Inventory (CNPS 2023), the Information for Planning and Consultation (iPaC; USFWS 2023a), maintained by U.S. Fish and Wildlife Service (USFWS), the National Hydrography Dataset (USGS 2023) and the National Wetlands Inventory (NWI; USFWS 2023b) was conducted to determine the potential for special status biological resources and waters or wetlands that may occur on the Project site.

The database searches indicate that several State and/or federally listed plant and wildlife species are known to occur on or in the vicinity of the site. Qualified biologists conducted a reconnaissance survey of the Project site on February 23, 2023, to determine the presence or absence of these special-status species and other biological resources on or near the Project site.

The reconnaissance survey consisted of a windshield and pedestrian survey of meandering transects throughout the entire parcel, which included the Project site to document site conditions, habitat present, and biological resources present on site. The survey included a 50-foot buffer, known as the Biological Survey Area (BSA). Current land use, plant, and wildlife including sign (burrows, tracks, scat, etc.) were documented to determine the presence or absence of sensitive biological resources within the BSA. Locational data were recorded using ESRI ArcGIS Collector installed on an iPad.

The habitat assessment determined no potential for rare plants to exist on site. The land has been historically used for agriculture and is currently in cultivation. Sprouting wheat is

present throughout the flood irrigated field along with other ruderal grasses and forbs including fiddleneck (*Amsinckia intermedia*), pepper grass (*Lepidium densiflorum*), and tumble mustard (*Sisymbrium altissimum*).

Plants

Queries of the CNDDB, iPaC and the CNPS database yielded records for nine special-status plant species documented within 10 miles of the Project site. These species include recurved larkspur (*Delphinium recurvatum*), Hoover's eriastrum (*Eriastrum hooveri*), alkali-sink goldfields (*Lasthenia chrysantha*), Ferris' goldfields (*Lasthenia ferrisiae*), San Joaquin woollythreads (*Monolopia congdonii*), mud nama (*Nama stenocarpa*), California alkali grass (*Puccinellia simplex*), Sanford's arrowhead (*Sagittaria sanfordii*), and San Joaquin bluecurls (*Trichostema ovatum*). None of the nine special-status species were observed during the survey, and there are no records of the species occurring on the BSA. Although floristic surveys were not conducted during the optimal surveying window, it is highly unlikely these special-status plant species would occur on the site due to the historic cultivation use, lack of suitable habitat (species elevation restrictions, required soil types, plant associations), and site conditions documented during the survey. The site has a low potential for special-status plant species to occur.

Wildlife

Queries of the CNDDB and iPaC databases yielded records for 26 special-status wildlife species within 10 miles of the Project. Habitat for most of these species does not occur on the site, however, highly mobile species may occur as transient foragers, including, Swainson's hawk (*Buteo swainsoni*), San Joaquin kit fox (*Vulpes macrotis mutica;* SJKF), American badger (*Taxidea taxus;* AMBA), and burrowing owl (*Athene cunicularia;* WEBO). There are CNDDB-recorded occurrences for SJKF within four miles of the Project site and no CNDDB records for AMBA or WEBO within 10 miles of the Project site. None of these species or their diagnostic (scat, burrows, dens, etc.) were present during the survey and the disturbed nature of the BSA provides little suitable habitat to support occupation. The buffer contained a minimal amount of California ground squirrel burrows that appeared to be inactive. No suitable burrows that could support special-status small mammal species were present in the Project site and there were no dens or burrows that could support SJKF, AMBA, or WEBO. Additionally, the Project site is flood irrigated, which precludes most burrowing species from becoming established. Therefore, there is little prey base to support species such as SWHA, SJKF, or AMBA. However, these species, as well as WEBO, could be on the site as a transient forager.

All special-status wildlife bird species have potential to occur on the Project site as transient foragers. However, to comply with the Migratory Bird Treaty Act and Fish and Game Code 3503.5 any construction initiated during nesting season (February 15–August 15), will have a disturbance buffer for all active nests. No nests were present during the survey.

CONCLUSION

The property is heavily disturbed by ongoing agricultural activities. There is little to no suitable habitat on the Project site or surrounding area to support most special-status species as outlined above. Based on the review of relevant databases and the results of the completed reconnaissance survey, it is our opinion that biological resources known to be in the area are unlikely to inhabit the site, and therefore will not be impacted by this Project. There is a possibility that several special-status species, such as SJKF, AMBA, and WEBO might appear as transient foragers. There is also potential for nesting migratory birds and nesting raptors to be present on and near the Project site. Compliance with Mitigation Measures MM BIO-1 through MM BIO-5 would protect, avoid, and minimize impacts to special-status wildlife species and nesting migratory birds and nesting raptors. When implemented, these measures would reduce impacts to these species to below-significant levels.

MITIGATION MEASURE(S)

MM BIO-1: Within 14 days of the start of Project construction activities, a pre-construction survey should be conducted by a qualified biologist knowledgeable in the identification of these species. The pre-construction survey should include walking transects to identify the presence of burrowing owls and their burrows, American badgers and their dens, and desert kit foxes and their dens. The pre-activity survey shall be spaced at close enough intervals to provide 100 percent coverage of the Project site and a 250-foot buffer for American badger, and desert kit fox, and a 250-foot buffer for nesting burrowing owl. If no evidence of these special-status species is detected, no further action is required.

MM BIO-2: If dens or burrows that could support any of these species are discovered during the pre-activity survey conducted under Measure BIO-5, the avoidance buffers outlined below should be established, and den or burrow monitoring will be conducted in accordance with the California Department of Fish and Game (CDFG) *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012) and USFWS *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS, 2011b). No work would occur within these buffers unless the biologist approves and monitors the activity.

Burrows and dens may be excavated by a qualified biologist once it is determined that the burrow or den is not occupied. To determine occupation, each den should be monitored for three consecutive days/nights using tracking medium and/or remote cameras fitted with a motion detector and/or infrared triggering system. In addition, prior to excavation of burrows or dens, one-way doors may be installed (only in non-breeding season), and the burrows or dens will be scoped with optic cameras to ensure no occupation of wildlife are present. All excavations would be accomplished by hand or backhoe under the direct supervision of a qualified biologist.

Burrowing Owl (active burrows only)

In addition, impacts to occupied burrowing owl burrows shall be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: (1) the birds have not begun egg laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

If burrowing owl are found to occupy the Project site, and avoidance is not possible, burrow exclusion may be conducted by qualified biologists only during the non-breeding season, before breeding behavior is exhibited, and after the burrow is confirmed empty through non-invasive methods (surveillance). Replacement of occupied burrows shall consist of artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1). Ongoing surveillance of the Project site during construction activities shall occur at a rate sufficient to detect burrowing owl if they return.

American Badger and Desert Kit Fox Natal/Pupping Season

- American Badger
  - Breeding Season: Late Summer – Early Fall
  - Pregnancy (Delayed Implantation): December through February
  - Pups are Born: March through April
  - Pup Dispersal: June through August
- San Joaquin Kit Fox
  - Mate Pairing: October through November
  - Mating: December through January (possibly into February)
  - Pups are Born: February or March
  - Pup Dispersal: July

American Badger and San Joaquin Kit Fox

- Potential or Atypical den: 50 feet
- Known den: 100 feet
- Natal or pupping den: 200 feet

MM BIO-3: If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys should be conducted 14 days prior to the start of construction at the construction site plus a 250-foot buffer (avoidance buffer) for songbirds and a 500-foot buffer for raptors (other than Swainson's hawk). The surveys

should be phased with the construction of the Project. If no active nests are found, no further action is required.

However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress. If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 250 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. Full-time monitoring of an active nest may be needed when activities are occurring at the fringe of a buffer to determine whether activities are affecting nesting birds. Results of the monitoring may indicate a need to expand the size of avoidance buffer areas. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist should have the ability to stop construction if nesting adults show any sign of distress.

MM BIO-4: The following measures shall be implemented to reduce potential impacts to Swainson's hawk: Nesting surveys for the Swainson's hawks shall be conducted in accordance with the protocol outlined in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's hawk Technical Advisory Committee, 2011). If potential Swainson's hawk nests or nesting substrates are located within 0.5 miles of the Project site, then those nests or substrates must be monitored for activity on a routine and repeating basis throughout the breeding season, or until Swainson's hawks or other raptor species are verified to be using them. The protocol recommends that the following visits be made to each nest or nesting site: one visit from January 1–March 20 to identify potential nest sites, three visits from March 20–April 5, three visits from April 5–April 20, and three visits during June 10–July 30. To meet the minimum level of protection for the species, surveys shall be completed for at least the two survey periods immediately prior to Project-related ground-disturbance activities. If Swainson's hawks are not found to nest within the survey area, then no further action is warranted.

If Swainson's hawks are not found to be present, then no action is warranted. If Swainson's hawks are found to nest within the survey area, active Swainson's hawk nests shall be avoided by 0.5 miles during the nesting period unless this avoidance buffer is reduced through consultation with the CDFW and/or a qualified biologist with expertise in Swainson's hawk issues. If a construction area falls within this nesting area, construction must be delayed until the young have fledged (left the nest). The 0.5-mile radius no-construction zone may be reduced in size but in no case shall be reduced to less than 500 feet except where a qualified biologist concludes that a smaller buffer area is sufficiently protective. A qualified biologist must conduct construction monitoring on a daily basis, inspect the nest on a daily basis, and ensure that construction activities do not disrupt breeding behaviors.

MM BIO-5: The following avoidance and minimization measures should be implemented during all phases of the Project to reduce the potential for impacts. These are modified from the *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the*

Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 2011b), but they can be applied equally to protect all three species.

a. Project-related vehicles should observe a daytime speed limit of 20 mph throughout the site in all Project areas, except on County roads and State and federal highways.
b. All Project activities should occur during daylight hours, but if work must be conducted at night, then a night-time construction speed limit of 10 mph should be established.
c. Off-road traffic outside of designated Project areas should be prohibited.
d. To prevent inadvertent entrapment of kit foxes or other animals during construction of the project, all excavated, steep-walled holes or trenches more than two feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps spaced at a minimum distance of 100 feet and constructed of earthen-fill or wooden planks should be installed.
e. Before holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the CDFW should be contacted before proceeding with the work.
f. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape.
g. All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes, American badgers, and burrowing owls before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the animal vacates the pipe of its own accord. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox, badger, or burrowing owl has escaped.
h. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Project site.
i. No pets, such as dogs or cats, should be permitted on the Project site unless permitted in accordance with the American Disabilities Act.
j. Project-related use of rodenticides and herbicides should be restricted.
k. A representative should be appointed by the Project proponent, who will be the contact source for any employee or contractor who might inadvertently kill or injure one of these species or who finds a dead, injured, or entrapped animal. The representative should be identified during the employee education program, and their name and telephone number should be provided to the CDFW.
l. Upon completion of the Project, all areas subject to temporary ground disturbances (including storage and staging areas, temporary roads, pipeline corridors, etc.) should be recontoured and revegetated to promote restoration of the area to pre-project conditions following a revegetation plan approved by the County. An area subject to "temporary" disturbance means any area that is disturbed during the Project, but after Project completion, will not be subject to further disturbance and has the potential to be revegetated.

m. Any Project personnel who are responsible for inadvertently killing or injuring one of these species should immediately report the incident to their representative. This representative should contact the CDFW immediately in the case of a dead, injured, or entrapped kit fox, American badger, or western burrowing owl.
n. New sightings of American badger or western burrowing owl shall be reported to the CNDDB.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated.*

Impact #3.4.4b – Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Riparian habitat is defined as lands that are influenced by a river, specifically the land area that encompasses the river channel and its current or potential floodplain. There is no riparian habitat present on the Project site and the Project would not impact riparian habitat.

The Project site is highly disturbed, and it does not contain any sensitive natural community. The Project would not result in impacts to any sensitive natural community.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

Impact #3.4.4c – Would the Project 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?

The United States Army Corps of Engineers (USACE) has regulatory authority over the Clean Water Act (CWA), as provided for by the EPA. The USACE has established specific criteria for the determination of wetlands based on the presence of wetland hydrology, hydric soils, and hydrophilic vegetation. There are no federally protected wetlands or vernal pools that occur within the Project site.

Wetlands, streams, reservoirs, sloughs, and ponds typically meet the criteria for federal jurisdiction under Section 404 of the CWA and State regulatory authority under the Porter-Cologne Water Quality Control Act. Streams and ponds typically meet the criteria for State regulatory authority under Section 1602 of the California Fish and Game Code.

The NHD/NWI indicates two water features within the Project site; an irrigation ditch was present along the southern and western boundary of the Project site (QK, 2023b). However,

the other water feature that was shown to run through the Project site was not observed and is no longer present on the site. There was no sign of hydrophilic plants that would indicate a water feature. The Project will not impact the irrigation canal, which is outside the footprint of the site. There are no features on the Project site that would meet the criteria for either federal jurisdiction or State regulatory authority.

There are no federally protected wetlands or vernal pools that occur within the Project site. There also are no State-regulated wetlands or waters present on the Project site. There would be no impact to federally protected wetlands or waterways or State wetlands or waters.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.4d – Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife migratory corridors are described as linear stretches of land that connect two open pieces of habitat that would otherwise be unconnected. These routes provide shelter and sufficient food resources to support wildlife species during migratory movements. Movement corridors generally consist of riparian, woodlands, or forested habitats that span contiguous acres of undisturbed habitat and are important elements of resident species' home ranges.

The Project and surrounding area do not occur within a known essential connectivity area identified by the Essential Habitat Connectivity Project (Spencer, W.D., et al, 2010).

The site is relatively isolated due to surrounding agriculture land use and paved roads. Due to the active agriculture practices no natural wildlife corridors are present it is not anticipated that the project development will have a significant impact to wildlife corridors. The surrounding agriculture fields may act as human-made corridors but the small size of this parcel and presence of surrounding agriculture fields should not have a significant impact on wildlife corridors.

The Project does not occur within a terrestrial migration route, significant wildlife corridor, or wildlife linkage area as identified in the *Recovery Plan for Upland Species in the San Joaquin Valley* (U.S. Fish and Wildlife Service, 1998). There was no evidence of a wildlife nursery or important migratory habitat being present on the Project site. Migratory birds and raptors could use habitat on or near the Project for foraging and/or as stopover sites during migrations or movement between local areas.

The Project would not substantially affect migrating birds or other wildlife. The Project will not restrict, eliminate, or significantly alter a wildlife movement corridor, wildlife core area, or Essential Habitat Connectivity area, either during construction or after the Project has been constructed. Project construction will not substantially interfere with wildlife movements or reduce breeding opportunities.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant.*

Impact #3.4.4e – Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project site is located within Kings County and must comply with provisions contained in the 2035 Kings County General Plan. The General Plan includes goals, objectives, and policies (III. Resource Conservation Policies D and E) to address the protection of special status wildlife and their habitats (Kings County, 2010). More specifically, Policies D1.1.1 and E.1.1 require that land use applications evaluate the potential for impacts to specially listed species and habitats. If impacts may be present, the Project shall provide appropriate mitigation, as provided within this section. With implementation of MM BIO-1 through MM BIO-5, impacts would be less than significant.

Therefore, the Project would not conflict with any local policies or ordinances protecting biological resources. The Kings County General Plan Resource Conservation Element outlines policies to conserve native oaks and native trees associated with the County's rivers, creeks, and streams. However, the Project site does not contain any trees within or adjacent to the site. The Project would not conflict with any local policies or ordinances protecting biological resources.

MITIGATION MEASURE(S)

Implementation of MM BIO-1 through MM BIO-5.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.4f – Would the Project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan?

There are no adapted Habitat Conservation Plans or Natural Community Conservation Plans that would apply to this Project site. The Project site is not located within the boundaries of

any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or any other local, regional, or State conservation plan. Therefore, implementation of the proposed Project would have no conflict related to an adopted Habitat Conservation Plan or Natural Community Conservation Plan.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact

3.4.5 - CULTURAL RESOURCES

Would the Project:

a.	Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
c.	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion

This section is based on a Cultural Resources Technical Memo (QK, 2023c), that is included as Appendix F of this document.

Impact #3.4.5a – Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

A cultural resources records search (#23-087) was conducted for the project at the Southern San Joaquin Valley Information Center (IC) at California State University, Bakersfield. The purpose of the search was to determine whether any known cultural resources were located on or near the proposed Project that might be impacted by Project development and/or activities.

The records search covered an area within one-half mile of the Project and included a review of the National Register of Historic Places, California Points of Historical Interest, California Registry of Historic Resources, California Historical Landmarks, California State Historic Resources Inventory, and a review of cultural resource reports on file.

The records search indicated that the subject property had never been surveyed for cultural resources and it is not known if any exist on it. One cultural resource study has been conducted within a half mile of the Project (QK, 2023c).

One historic era cultural resource, a segment of the Lemoore Canal (primary no. P-16-000129), has been recorded within a half mile of the Project. No further cultural resources, either historical or prehistoric, have been identified or recorded within a half mile.

The County General Plan states that the County has a number of historical sites, four of which are included on the National Register of Historic Places, three are designated as California

Historical Landmarks, and the remaining are identified as being historic sites of local importance (Kings County, 2010). The Project is located within a predominantly agricultural area and does not contain any listed historic resources nor is it located within an identified historic district.

However, there is still a possibility that historical or archaeological materials may be exposed during construction. Grading and trenching, as well as other ground-disturbing actions, have the potential to damage or destroy these previously unidentified and potentially significant cultural resources within the project area, including historical or archaeological resources. Disturbance of any deposits that have the potential to provide significant cultural data would be considered a significant impact. To reduce the potential impacts of the Project on cultural resources, the following measures are recommended to be included as a note on all Construction Plans. With implementation of CUL-1, the Project would have a less-than-significant impact related to historic cultural resources.

MITIGATION MEASURE(S)

MM CUL-1: a) Prior to the issuance of building permits, a Cultural Resources Alert must be noted on any plans that require ground disturbing excavation that there is a potential to expose buried cultural resources; and b) If historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. Implementation of the mitigation measure below would ensure that the proposed Project would not cause a substantial adverse change in the significance of a historical resource.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.5b – Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

A Sacred Lands File request was also submitted to the Native American Heritage Commission (NAHC). A response dated March 23, 2023, indicates negative results (QK, 2023c). The NAHC also provided a list of tribal groups to contact pursuant to AB 52. To date, no tribal groups have commented on the Project.

Although considered unlikely since there is no indication of any historic resources on the Project site, subsurface construction activities associated with the Project could potentially damage or destroy previously undiscovered archaeological resources. This is considered a potentially significant impact. Mitigation is proposed requiring implementation of standard

inadvertent discovery procedures to reduce potential impacts to previously undiscovered subsurface historic and archaeological resources. Mitigation Measure MM CUL-2 requires the Project applicant to retain the Santa Rosa Rancheria cultural staff to provide pre-construction Cultural Sensitivity Training to construction staff and any excavation contractor regarding the discovery of cultural resources and the potential for discovery during ground-disturbing activities. Mitigation Measure MM CUL-3 requires the Project applicant to offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground-disturbing activities during both construction and decommissioning.

MITIGATION MEASURE(S)

MM CUL-2: The Project applicant shall retain the Santa Rosa Rancheria cultural staff to provide pre-construction Cultural Sensitivity Training to construction staff and any excavation contractor regarding the discovery of cultural resources and the potential for discovery during ground-disturbing activities, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. Evidence of compliance shall be submitted to the Kings County CDA prior to the ground-disturbing activity.

MM CUL-3: Prior to any ground disturbance, the Project applicant shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground-disturbing activities during both construction and decommissioning of the Project.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.5c – Would the Project disturb any human remains, including those interred outside of formal cemeteries?

As previously noted, a search of the California NAHC Sacred Lands File search revealed no records of known sensitive cultural resources in the vicinity of the Project area. Human remains are not known to exist within the Project area. Existing regulations in the Health and Safety Code, Public Resources Code, and California Code of Regulations establish a procedure for the proper handling of unidentified human remains.

However, construction would involve earth-disturbing activities, and it is still possible that human remains may be discovered, possibly in association with archaeological sites. Mitigation Measure MM CUL-4 has been included in the unlikely event that human remains are found during ground-disturbing activities. Impacts would be less than significant with implementation of MM CUL-4.

MITIGATION MEASURE(S)

MM CUL-4: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the

California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.6 - ENERGY				
Would the Project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion

Impact #3.4.6a – Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

The Project would utilize energy from construction and decommissioning activities by use of construction equipment and construction workers traveling to and from the Project site. It is assumed that the construction workers would be from the area and carpool as was feasible. The amount of energy used on a daily basis would vary, depending on the intensity and types of construction activities occurring and the equipment that is being utilized. However, construction activities would be limited and of short duration, approximately three to four months. It is not anticipated that construction-related fuel consumption as a result of implementation of the proposed Project would result in inefficient, wasteful, or unnecessary energy use compared with other similar projects.

Also detailed in Impact #3.4.8, *Greenhouse Gas Emissions*, the amount of energy (shown in terms of GHG emissions) generated from construction activities would be limited and would not have the potential to result in a significant impact on the environment.

Operation of the Project involves the generation of five MW of renewable energy to be supplied to the regional power grid. The solar facility will be monitored remotely, and only routine maintenance would require staff to travel to the site. Based on the minimal number of trips, the negligible fuel use, and the cleaning of panels on an as-needed basis, the Project would not result in wasteful, inefficient, or unnecessary consumption of transportation fuels. Overall, impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant.*

Impact #3.4.6b – Would the Project Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

As described previously, the Project involves the generation of five MW of renewable energy for the regional power grid. The Project aids in meeting the renewable energy mandates established by the State's Renewable Portfolio Standards (RPS). The RPS requires retail sellers and publicly owned utilities to procure 60 percent of their electricity from eligible renewable energy resources by 2030 and requires all of the State's retail electricity supply to consist of zero-carbon resources by 2045. In addition, the Project would assist the State in its goals for renewable energy as set forth by AB 32. Therefore, the Project would have a positive impact on meeting state and local plans for renewable energy or energy efficiency.

The Project will not conflict with plans for energy efficiency and promotion of renewable energy. It will promote these goals. Additionally, the Project does not conflict with the energy policies of the County General Plan.

The proposed Project is proposed to produce five MW of electricity, which amounts to approximately 13,688-megawatt hours (MWh) per year. Megawatt hours are calculated by multiplying the MW produced by assumed hours of daylight (7.5 hours) and the number of days in a year (365).

Project net GHG emissions are based on the energy used during operations and construction emissions. Pacific Gas & Electric (PG&E) has a CO_2 intensity factor of 641.35 pounds per MWh for projects served by the utility. Therefore, the project would displace about 3,369 $MTCO_2e$ of GHG.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant.*

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.7 - GEOLOGY AND SOILS				
Would the Project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. 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? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☒	☐	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c. 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- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. 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?	☐	☒	☐	☐
e. 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?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Discussion

Impact #3.4.7a(i) – Would the Project 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?

Kings County has no known major fault systems within its territory (Kings County, 2010). The Project site is not mapped within an Alquist-Priolo Earthquake Fault Zone, and there is no other evidence of a known fault within the Project site. Therefore, there would be no impact related to the exposure of people or structures to substantial adverse effects from the rupture of a known earthquake fault. The Project site is not located within an Alquist-Priolo Earthquake Fault Zone. According to the *2035 Kings County General Plan*, there are no known major fault systems within Kings County. The greatest potential for geologic disaster in Kings County is posed by the San Andres Fault, which is located approximately four miles west of the Kings County boundary line with Monterey County (Kings County, 2010). The distance from the nearest active faults precludes the possibility of fault rupture on the Project site. Therefore, there would be no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.7a(ii) – Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

The Project will not expose people or structures to any risks. There will be no structures, only solar panels. According to the Seismic Safety Map contained within the Health and Safety Element of the *2035 Kings County General Plan* (Figure HS-2, page HS-10), the Project site is located within an area designated as Zone V_1 or Valley Zone 1, which is identified as the area of least expected seismic shaking by the Kings County Seismic Zone Description in the 2035 General Plan (Kings County, 2010). The potential for ground shaking is discussed in terms of the percent probability of exceeding peak ground acceleration (% g) in the next 50 years (Kings County, 2010). The Project site's exceedance probability in the next 50 years is between 20–30 percent, which is the lowest within the County. Although the Project area could potentially experience ground shaking, the magnitude of the hazard would not be severe as indicated by the Health and Safety Element of the 2035 Kings County General Plan through the implementation and compliance with the California Building Code during building permit review prior to construction. Therefore, a less-than-significant impact would occur.

The proposed Project would be an unmanned facility and would not include any habitable structures. Further, the structures installed on the site would comply with the applicable standards of the California Building Code and County development standards.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.7a(iii) – Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

The potential for liquefaction is recognized throughout the San Joaquin Valley where unconsolidated sediments and a high water table coincide (Kings County Emergency Operations Plan, 2015). However, the risk and danger of liquefaction and subsidence occurring within the County is considered to be minimal. In addition, the site is not mapped within a liquefaction zone. Structures installed on the site would comply with the applicable standards of the California Building Code.

The Project does not include the construction of structures and the potential for liquefaction is unlikely. Implementation of Mitigation Measures MM GEO-1 would require the preparation of a geotechnical study that would include recommendations to engineer the site's soils to prevent potential liquefaction in the future. With implementation of this mitigation measure, the Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure including liquefaction. Therefore, the impact would be less than significant with mitigation incorporated.

MITIGATION MEASURE(S)

MM GEO-1: Prior to the issuance of building permits, preparation of a Geotechnical and Soils Report by a qualified registered civil engineer, based on soil borings or excavations, would be prepared to determine the potential for soils expansion and to prepare recommendations for corrective actions to mitigate potential damage to project structures due to potential soils expansion is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.7a(iv) – Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Landslides are the downslope movement of geologic materials. The stability of slopes is related to a variety of factors, including the slope's steepness, the strength of geologic materials, and the characteristics of bedding planes, joints, faults, vegetation, surface water, and groundwater conditions. The Project area consists of relatively flat terrain where landslides have not historically occurred. Based on these factors, impacts related to seismic-related landslide hazards would not occur.

There will be minimal grading required to place or install the solar panels. There will be no structures. The stability of slopes is related to a variety of factors, including the slope's steepness, the strength of geologic materials, and the characteristics of bedding planes, joints, faults, vegetation, surface water, and groundwater conditions. The Project area consists of relatively flat terrain where landslides have not historically occurred. Based on these factors, impacts related to seismic-related landslide hazards would not occur and there would be no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.7b – Would the Project result in substantial soil erosion or the loss of topsoil?

The dominant soil component is identified as "Grangeville." This soil type is described as loam surface texture with very slow infiltration rates. They are soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. Only minimal surface grading will be necessary to install the solar panels.

Construction activities associated with the proposed Project would disrupt surface vegetation and soils and would expose these disturbed areas to erosion by wind and water. National Pollutant Discharge Elimination System (NPDES) stormwater permitting programs regulate stormwater quality from construction sites, which includes erosion and sedimentation. Under the NPDES permitting program, the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) are required for construction activities that would disturb an area of one acre or more. A SWPPP must identify potential sources of erosion or sedimentation that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement best management practices (BMPs) that ensure the reduction of these pollutants during stormwater discharges. Typical BMPs intended to control erosion include sandbags, retention basins, silt fencing, storm drain inlet protection, street sweeping, and monitoring of water bodies. Mitigation Measure MM GEO-1 requires the approval of a SWPPP to comply with the NPDES General Construction Permit from the Central Valley Regional Water Quality Control Board (RWQCB).

In the long term and after construction activities have been completed on the Project site, the ground surface will have impermeable surfaces as well as permeable surfaces. The impermeable surfaces would include the inverters, BESS units, storage structures, and support structure footings. The permeable surfaces would include the ground underneath the panels, the internal gravel roadways, which would allow rainwater to percolate into the aquifer.

Additionally, the Project site would continue to be used for crop cultivation and sheep grazing, therefore, there would be minimal exposed soil during operation. Overall, the development of the Project would not result in conditions where substantial surface soils would be exposed to wind and water erosion. The Project would not result in substantial soil erosion or the loss of topsoil. Impacts would be less than significant with the incorporation of Mitigation Measure MM GEO-2.

MITIGATION MEASURE(S)

MM GEO-2: Prior to construction, the District shall submit: (1) the approved Stormwater Pollution Prevention Plan (SWPPP) and (2) the Notice of Intent (NOI) to comply with the General National Pollutant Discharge Elimination System (NPDES) from the Central Valley Regional Water Quality Control Board. The requirements of the SWPPP and NPDES shall be incorporated into design specifications and construction contracts. Recommended best management practices for the construction phase may include the following:

- Stockpiling and disposing of demolition debris, concrete, and soil properly.
- Protecting existing storm drain inlets and stabilizing disturbed areas.
- Implementing erosion controls.
- Properly managing construction materials.
- Managing waste, aggressively controlling litter, and implementing sediment controls.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.7c – Would the Project 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- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

The proposed Project would be an unmanned solar facility and would not include any habitable structures. Structures installed on the site would comply with the applicable standards of the California Building Code.

Ground subsidence is typically caused when overdrafts of a groundwater basin reduce the upward hydraulic pressure that supports the overlying land surface, resulting in consolidation/settlement of the underlying soils. Subsidence has the potential to damage local, state, and federal infrastructure, including reducing the freeboard and flow capacity of the California Aqueduct and irrigation delivery canals and pipelines, as well as causing structural damage to bridges, roads, flood control facilities, and other structures. Large areas

of the San Joaquin Valley, including the Project area, have been subject to subsidence from groundwater use for many years. Mapping by the U.S. Bureau of Reclamation (USBR) shows that from the years 1926 to 1970, the land at the Project site subsided by more than 10 feet (USBR, 2017). From 2007 to 2011, the land at the site subsided between 0.5 and 1.0 feet (California Water Foundation, 2014). The overpumping of groundwater and resulting subsidence is the cumulative result of water withdrawals from many agricultural wells. The Project would use a small fraction of the groundwater that is typically used for agricultural irrigation over an equivalent area of farmland. Therefore, the Project would have a beneficial impact in that it would help alleviate the ongoing cumulative subsidence impacts by causing a reduction in overall groundwater use in the valley. Impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.7d – Would the Project 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?

The dominant soil component is identified as "Grangeville." This soil type is described as loam surface texture with very slow infiltration rates. They are soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

The Kings County General Plan *Health and Safety Element* does not identify soils on the Project Site as having very low expansion potential (Kings County, 2010). The proposed Project would be an unmanned facility and would not include any habitable structures. Structures installed on the site would comply with the applicable standards of the California Building Code.

Additionally, Mitigation Measure MM GEO-1 has been incorporated into the Project to require the preparation of a soils report by a qualified registered civil engineer prior to the issuance of building permits. With the application of Mitigation Measure MM GEO-1, impacts related to expansive soils would be less than significant.

MITIGATION MEASURE(S)

Implementation of Mitigation Measure MM GEO-1.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

Impact #3.4.7e – Would the Project 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?

The Project does not include a habitable structure or office. No septic tanks or alternative wastewater disposal systems are proposed. Therefore, no impacts related to the use of such facilities would occur from implementation of the Project.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.7f – Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The geological unit mapped within the Project area is comprised of Quaternary alluvium dating from the Holocene to Pleistocene. These sediments are considered to have a low paleontological potential at the surface, however the potential increases with depth if older Pleistocene-aged sediments are encountered.

The Project area has a low potential for impacts related to paleontological resources at the surface in the Holocene-aged deposits and a moderate potential in Pleistocene-aged deposits in the subsurface. To minimize any potential for impacts to paleontological resources that may be discovered during ground disturbance, the implementation of Mitigation Measure MM GEO-3 is required. MM GEO-3 requires that if unknown paleontological resources are discovered during construction activities, work within a 25-foot buffer would cease until a qualified paleontologist determined the appropriate course of action. With implementation of Mitigation Measure MM GEO-3, the Project will impacts are less than significant.

MITIGATION MEASURE(S)

MM GEO-3: During any ground-disturbance activities, if paleontological resources are encountered, all work within 25 feet of the find shall halt until a qualified paleontologist, as defined by the Society of Vertebrate Paleontology *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (2010), can evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the Natural History Museum of Los Angeles County or another appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations, and fossil recovery may be required to mitigate adverse impacts from Project implementation. If avoidance is not

feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, they shall be avoided to ensure no adverse effects or such effects must be mitigated. Construction in that area shall not resume until the resource-appropriate measures are recommended, or the materials are determined to be less than significant. If the resource is significant and fossil recovery is the identified form of treatment, then the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact

3.4.8 - GREENHOUSE GAS EMISSIONS

Would the Project:

a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b.	Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

An Air Quality and Greenhouse Gas Impact Analysis was prepared for the Project (QK, 2023a) and is included in Appendix C.

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHGs), play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Emissions of gases that induce global warming are increased by human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses.

Section 15364.5 of the California Code of Regulations defines GHGs to include but is not limited to carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Transportation is responsible for 27 percent of the State's greenhouse gas emissions, followed by electricity generation (25 percent). Emissions of CO_2 and N_2O are byproducts of fossil fuel combustion. Methane (11 percent of the State's greenhouse gas emissions), results from natural gas systems, raising of livestock, and natural wetlands. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean.

SJVAPCD has not adopted thresholds of significance for GHG emissions from an individual project. The Air Resources Board (ARB) is currently using existing data from the industrial sector to formulate a proposed threshold. At this time, a significance threshold of 7,000 metric tons of CO_2 (Mt CO_2e) per year is being used for operational emissions. SJVAPCD supports the use of interim thresholds as established by CARB when adopted thresholds are not applicable.

Construction activities associated with the proposed Project would result in emissions of CO2 and CH4 from construction activities. SJVAPCD's Climate Change Action Plan (CCAP) identified best performance standards (BPS) expecting to equal or exceed a 29 percent reduction in GHG emissions from stationary sources and development projects.

Impact #3.4.8a – Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction and Decommissioning

Construction activities produce combustion emissions from various sources, such as site grading, heavy-duty construction vehicles onsite, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions from onsite construction activities would vary daily as construction activity levels change. The CalEEMod2020.4.0 computer model estimated that the construction and decommissioning activities for the proposed Project would generate a total of 315 $MTCO_2e$.

Operations

Project operations would generate GHG emissions primarily as a result of worker vehicle trips. Additionally, the Project's construction-related GHG emissions amortized over 30 years, are added to the operational emissions estimate in order to determine the Project's total annual GHG emissions. As shown in Table 3.4.8-1, the Project's total annual GHG emissions would be approximately 16 $MTCO_2e$ per year. This is below the threshold of 7,000 $MTCO_2e$ per year. In addition, as the Project would displace electricity generation from GHG-generating facilities such as natural gas power plants, the Project would result in a net reduction of GHG emissions of 760 $MTCO_2e$. Therefore, the Project would have a positive impact on the environment by reducing greenhouse gas emissions. Therefore, the Project would displace about 3,369 $MTCO_2e$ of GHG. As shown in Table 3.4.8-1, the Project GHG emissions are -3,350 $MTCO_2e$ per year, below the 7,000 MTCO2e per year. Therefore, the Project would have a positive impact by reducing GHG emissions.

Table 3.4.8-1
Estimated Annual Greenhouse Gas Emissions

Consumption Source	$MTCO_2e$ per year
Operations	5
Construction (amortized over 30 years	11
Subtotal	16
Displaced Electricity Generation	-760
Total Net Generation	**-744**
Threshold Exceeds Threshold?	7,000

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.8b – Would the Project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

According to the First Update to the Climate Change Scoping Plan – Building on the Framework Pursuant to AB 32, there are many GHG emission reduction and carbon sequestration opportunities that could be realized in the agriculture sector. However, because of limited research, and the wide variety of farm sizes, animals, and crops produced, there are few one-size-fits-all emission reductions or carbon sequestration strategies for the agriculture sector.

Recent research has shown that GHG emissions from urban areas are much greater than those from agricultural lands on a per-acre basis. As California's population increases, pressures to convert agricultural croplands and rangelands to urban and suburban development also increase. Conservation of these lands will be important in meeting our long-term climate goals. Farmland and open space conservation can be an important policy to support the objectives of the Sustainable Communities Strategies, including reducing vehicle miles traveled. This could be accomplished by using incentives for conservation easements, supporting urban growth boundaries, and maintaining agricultural zoning (California Air Resource Board, 2014). Since the Project would support the notion of maintaining agricultural zoning of the existing site, it can be concluded that the Project would be consistent with the State Scoping Plan.

Additionally, the scoping plan contains recommended actions for reducing GHG emissions for the Agriculture Section, however, most are not feasible or applicable for this type of project, as they are geared towards state agencies. Because of these conditions, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.9 - HAZARDS AND HAZARDOUS MATERIALS				
Would the Project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b. 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?	☐	☒	☐	☐
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	☐	☐	☐	☒
f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

Discussion

Federal Law Hazardous Materials Transportation Act, Title 42, Section 11022 of the United States Code is the principal federal law in the United States regulating the transportation of hazardous materials. Its purpose is to "protect against the risks to life, property, and the

environment that are inherent in the transportation of hazardous material in intrastate, interstate, and foreign commerce."

State Law

California Health and Safety Code Chapter 6.95 establishes minimum statewide standards for Hazardous Materials Business Plans (HMBPs). HMBPs contain basic information on the location, type, quantity, and health risks of hazardous materials and/or waste. Each business is required to prepare a HMBP if that business uses, handles, or stores a hazardous material and/or waste or extremely hazardous material in quantities greater than or equal to the following:

- 55 gallons for a liquid.
- 500 pounds of a solid.
- 200 cubic feet for any compressed gas.
- Threshold planning quantities of an extremely hazardous substance.

Impact #3.4.9a – Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction and Decommissioning

Per the California Health and Safety Code and CCR, a business is required to provide a Hazardous Materials Business Plan (HMBP) to the California Environmental Reporting System (CERS) if they handle a listed hazardous material above a certain threshold. Specific hazardous chemicals reported to the CERS and a Certified Unified Program Agency (CUPA) and procedures specified in the SPCC would provide a system of addressing hazardous materials handled by the Project. The material threshold for this program is 55 gallons of liquid, 500 pounds of solid, 200 cubic feet of compressed gas, and/or applicable State/federal threshold quantity for extremely hazardous material.

Construction of the Project would involve the transport and use of minor quantities of hazardous materials such as fuels, oils, lubricants, hydraulic fluids, paints, and solvents. The types and quantities of hazardous materials to be used and stored onsite would not be of a significant amount to create a reasonably foreseeable upset or accident condition. The handling and transport of all hazardous materials onsite would be performed in accordance with all applicable federal, State, and local laws and regulations.

Construction activities would involve the use of hazardous materials such as gasoline, diesel fuels, oils, lubricants, solvents, detergents, degreasers, paints, welding and soldering supplies, pressurized gases, etc. All hazardous materials would be stored in containers that are specifically designed for the materials to be stored. Although these types of materials are not acutely hazardous, they are classified as hazardous materials and create the potential for accidental spillage, which could expose workers. The use, storage, transport, and disposal of hazardous materials for construction of the facility would be carried out in accordance with federal, State, and County regulations. No extremely hazardous substances (i.e., governed

under Title 40, Part 335 of the Code of Federal Regulations) would be used, stored, transported, or disposed of as a result of Project construction.

During the decommissioning and disposal process, it is anticipated that all project structures would be fully removed from the ground. Above-ground equipment that would be removed would include electrical wiring, equipment on the inverter pads, and the interconnection transformer pad and associated equipment. Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment offsite. Removal of the PV modules would include removal of the racks on which the solar panels are attached, and their placement in secure transport crates and a trailer for storage, for ultimate transportation to another facility or to be recycled. Once the PV modules have been removed, the racks would be disassembled, and the structures supporting the racks would be removed. All other associated site infrastructure would be removed, including fences, concrete pads that may support the inverters, transformers and related equipment, and underground conduit/electrical wiring. The fence and gates would be removed, and all materials would be recycled to the extent feasible. The area would be thoroughly cleaned and all debris removed. As discussed above, most panel materials would be recycled, with minimal disposal to occur in landfills in compliance with all applicable laws.

Additionally, as listed above GEO-2 requires an approved SWPPP during construction, which lists BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements would be prepared for the Project. The release of any spills to the environment would be prevented through the implementation of Mitigation Measure GEO-2 and BMPs included in the SWPPP. Thus, impacts related to construction would be less than significant.

Operations

Photovoltaic (PV) solar panels (known within the industry as "modules") that would be installed on the project site would consist of either crystalline silicon or cadmium telluride (CdTe) thin film technology. Crystalline silicon and thin film CdTe solar modules that would be installed on the project site may include small amounts of semiconductor or electrically conducting materials encapsulated within the modules that are considered to be hazardous such as lead or cadmium compounds. Because such materials are in a solid and non-leachable state, broken crystalline silicon and thin film CdTe solar modules would not be a source of pollution to surface water, stormwater, or groundwater. Crystalline silicon and thin film CdTe modules removed from the site (i.e., during project decommissioning) would be recycled or otherwise disposed of at an appropriate waste disposal facility. In addition, the energy storage systems would include industry-standard battery systems which contain chemical contents that are considered hazardous, such as lithium-ion batteries as well as lead acid, sodium-sulfur, and sodium or nickel hydride batteries.

The Project may regard CdTe thin-film modules, CdTe is generally bound to a glass sheet by a vapor transport deposition during the manufacturing process, followed by sealing the CdTe layer with a laminate material and then encapsulating it in a second glass sheet. It has been demonstrated that standard operation of CdTe PV systems does not result in cadmium

emissions to air, water, or soil. The modules meet rigorous performance testing standards demonstrating durability in a variety of environmental conditions. The PV modules with CdTe thin film technology conform to the International Electrotechnical Commission (IEC) test standards IEC 61646 and IEC61730 PV as tested by a third-party testing laboratory certified by the IEC. In addition, the PV modules also conform to Underwriters Laboratory (UL) 1703 a standard established by the independent product safety certification organization. In accordance with UL 1703, the PV modules undergo rigorous accelerated life testing under a variety of conditions to demonstrate safe construction and monitor performance. During normal operations, CdTe PV modules do not present an environmental risk. CdTe releases are also unlikely to occur during accidental breakage or fire due to the high chemical and thermal stability of CdTe. Disposal risks of end-of-life CdTe PV modules are minimized because of the low solubility of CdTe and because the modules can be effectively recycled at the end of their approximately 30-year life. Studies indicate that unless the PV module is purposefully ground to fine dust, use of CdTe in PV modules does not generate any emissions of CdTe. The Project includes operational and maintenance protocols that would be used to identify and remove damaged or defective PV modules during annual inspections. The PV module manufacturer created the first global and comprehensive module collection and recycling program in the PV industry in 2005. Therefore, the use of a CdTe PV system would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during normal operations (Sinha, P, et al, 2018).

Environmental risks of both crystalline silicon and thin film CdTe PV technologies have been evaluated by the International Energy Agency, using U.S. Environmental Protection Agency (USEPA) fate and transport methods for potential emissions to air, water, and soil from non-routine events such as fire and field breakage. Based on comparisons with USEPA health screening levels, crystalline silicon and thin film CdTe PV technologies do not present a health risk in the event of fire or breakage, with regards to their use of lead and cadmium compounds, respectively (Sinha, P, et al, 2018).

Project operations would require the use of transformer oil at the substations and the backup energy storage systems could contain battery acids, as well as lithium-ion, lead acid, sodium-sulfur, and sodium or nickel hydride. All transformers would be equipped with spill containment areas and battery storage would be in accordance with OSHA requirements such as the inclusion of ventilation, acid-resistant materials, and spill response supplies. All components would have a comprehensive SPCC plan, in accordance with all applicable federal, State, and local regulations. Dust palliatives and herbicides, if used during operations to control vegetation, may be transported to the project site. These materials would be stored in appropriate containers to prevent accidental release. SR-41 or SR 198 would be the likely designated route for the transport of hazardous materials located on or immediately adjacent to the Project site.

Operation of the Project may involve the transport, use, and disposal of minor amounts of hazardous materials including motor vehicle fuel, lubricants, inverter coolant, cleaning chemicals, paint, pesticides, herbicides, and fire suppressant. Such materials would be stored in temporary aboveground storage tanks or in secure sheds or fenced areas. During

operation, certain Project components, such as switchgear, transformers, and inverters, may contain small quantities of hazardous materials. Large quantities of hazardous substances would not be routinely transported or used during operation, except for transport, use, and disposal of transformer oil during major maintenance activities.

To ensure that impacts due to the use, transport, and disposal of hazardous materials would be less than significant, Mitigation Measure MM HAZ-1 is being incorporated to require the proponent to prepare and implement a HMBP. Implementation of Mitigation Measure MM HAZ-1 would reduce any impacts regarding the handling of substances and accidental releases to a less-than-significant level.

MITIGATION MEASURE(S)

MM HAZ-1: During the life of the Project, including decommissioning, the Project operator shall prepare and maintain a Hazardous Materials Business Plan (HMBP), as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 by submitting all the required information to the California Environmental Reporting System (CERS) at http://cers.calepa.ca.gov/ for review and acceptance by the Kings County Environmental Health Services Department. The HMBP shall:

a. Delineate hazardous material and hazardous waste storage areas.
b. Describe proper handling, storage, transport, and disposal techniques including which routes will be used to transport hazardous materials.
c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill.
d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction and operation.
e. Establish public and agency notification procedures for spills and other emergencies including fires.
f. Describe federal, State, or local agency coordination, as applicable, and clean-up efforts that would occur in the event of an accidental release.
g. Include procedures to avoid or minimize dust from existing residual pesticides and herbicides that may be present on the site.

The Project proponent shall ensure that all contractors working on the Project are familiar with the facility's HMBP as well as ensure that one copy is available at the Project site at all times. In addition, prior to the issuance of building permits, a copy of the accepted HMBP from CERS shall be submitted to Kings County for inclusion in the Project's permanent record.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.9b – Would the Project 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?

See Impact #3.4.9a above.

Some hazardous materials such as fuels, oils, and lubricants would be used during construction, operation, and decommissioning of the Project. Mitigation Measure MM HAZ-1 requires preparation and implementation of a HMBP to reduce potential impacts from minor spills or discharges of potentially hazardous materials due to improper handling, storage, and/or disposal.

Electromagnetic fields (EMFs) are associated with electromagnetic radiation, which is energy in the form of photons. Radiation energy spreads as it travels and has many natural and human-made sources. The electromagnetic spectrum, the scientific name given to radiation energy, includes light, radio waves, and x-rays, among other energy forms. Electric and magnetic fields are common throughout nature and are produced by all living organisms. Commonly known human-made sources of EMF are electrical systems, such as electronics and telecommunications, as well as electric motors and other electrically powered devices. Radiation from these sources is invisible, non-ionizing, and of low frequency.

The energy storage technology and design for the BESS has not been determined at this time but could include any commercially available battery technology, including but not limited to lithium-ion, lead acid, sodium-sulfur, and sodium or nickel hydride. Either way, the energy storage would occur as direct current (DC) which produces static EMFs and has not been associated with adverse health effects. Electric voltage (electric field) and electric current (magnetic field) from transmission lines create EMFs. Power frequency EMF is a natural consequence of electrical circuits and can be either directly measured using the appropriate measuring instruments or calculated using appropriate information. The project would construct off-site collection systems to interconnect into the California Independent System Operator (CAISO) grid at the Jacob Circuit substations, approximately 150 feet from the site.

Additionally, as outlined in GEO-2, a SWPPP, listing BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements would be prepared for the Project. The release of any spills to the environment would be prevented through the implementation of Mitigation Measure MM HAZ-1 and BMPs included in the SWPPP (PPP WQ-1).

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM GEO-2 and MM HAZ-1.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.9c – Would the Project emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There is no existing or proposed school within one-quarter mile of the Project site. The nearest schools are Neutra Elementary School, and Akers Elementary School, both of which are six miles north of the Project site. Thus, the Project would not result in an impact related to hazardous emissions or the handling of hazardous materials, substances, or waste near a school.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.9d – Would the Project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

As verified by the California Department of Toxic Substances Control Envirostor database (California Department of Toxic Substances Control, 2023), the Project Site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. There would be no significant hazard to the public or environment resulting from the site's presence on such a list. "Cortese" Hazardous Waste & Substances Sites List. The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites) (California Water Resources Control Board, 2023).

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.9e – Would the Project be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?

See also Impact #3.4.9(e). The Project site is not located within the Kings County Airport Land Use Compatibility Plan (County of Kings, 1994), or the Naval Air Station Lemoore Air Installations Compatible Use Zones (Department of the Navy, 2010), and is not within two miles of a public airport or public use airport and would not result in a safety hazard for people residing or working in the Project area. Therefore, there would be no impact.

Naval Air Station Lemoore located approximately 7.3 miles from the project site. Hanford Municipal Airport located approximately 10 miles northeast. According to the Kings County General Plan Health and Safety Element Airport Compatibility Map, the Project Site is not located within an airport compatibility hazard zones.

In addition, the Project Site would be unmanned and no workers would be exposed to excessive noise. Therefore, impacts related to a safety hazard or noise from airport operations would not occur from implementation of the Project. The implementation of Mitigation Measure MM HAZ-2 is required to comply with Federal Aviation Administration requirements for an Obstruction Evaluation of new structures.

MITIGATION MEASURE(S)

MM HAZ-2: FAA Obstruction Evaluation. Prior to issuance of a building permit, the developer shall provide evidence of a completed Obstruction Evaluation (Title 14, Code of Federal Regulations Part 77) by the Federal Aviation Administration.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

Impact #3.4.9f – Would the Project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

According to the Evacuation Routes identified within the Health and Safety Element of the *2035 Kings County General Plan* (Figure HS-20, page HS-33), the Project is not located along a State Highway or designated arterial, which is used as an emergency evacuation route. The nearest designated evacuation route is Kansas Avenue, located approximately 0.5 miles to the north of the Project site. The Project does not include any modifications to existing area roadways and would not add significant amounts of traffic that would interfere with emergency response or evacuation. The Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, no impact would occur.

The proposed Project is located within an existing parcel and would not modify any roadways servicing emergency response or evacuations. There would be no impact related to the impairing of or physical interference with an adopted emergency response plan or emergency evacuation plan.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

Impact #3.4.9g – Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The Project site is not located within the vicinity of wildlands and is in an area classified as having a fire hazard severity zone of non-wildland/non-urban and moderate (Cal Fire, 2012). The ground underneath the panels will have naturally occurring vegetation, to minimize exposed dirt. However, the vegetation will be routinely mowed to reduce potential fire hazards. In addition, to meet county Fire Department requirements, a 10,000 gallon, self-filling water storage tank that is connected to a water source will be installed on the site. Therefore, there would be no impact.

The Project site is not within an area designated by the California Department of Forestry and Fire Protection as a Fire Hazard Severity Zone. Furthermore, no Very High Fire Hazard Severity Zones are located nearby. The Project site is accessible by emergency personnel and vehicles in the event of a wildland fire. The Project would not include construction of structures for human habitation and there would be no permanent employees stationed at the site. For these reasons, this impact would be less than significant.

The Project would also include a BESS component. While these types of batteries generally burn with difficulty, they can in fact burn or become damaged by fire and generate fumes and gases that are extremely corrosive. Dry chemical, carbon dioxide, and foam are the preferred methods for extinguishing a fire involving batteries as water is not useful in extinguishing battery fires.

The BESS component manufacturer for the project could include any commercially available and proven large-scale battery technology, including but not limited to lithium-ion, sodium-sulfur, and sodium or nickel hydride. The batteries would be contained within enclosures or in individual containers, housed in open-air-style racking within its enclosed container. The containers would also have heating, ventilation, and air conditioning cooling to maintain energy efficiency and to protect the batteries.

The California Fire Code and associated standards require rigorous large-scale fire testing, such as UL 9540A, which requires these systems to pass performance-based criteria so that enclosures of BESS systems may not pose a fire or explosion risk to adjacent exposures. To achieve these results, BESS systems typically employ various types of active thermal runaway mitigation systems. Regardless of the design basis, these thermal runaway mitigation systems are required to be tested in order to manage fire and exposure risks. Some BESS systems comply with these performance-based requirements without the use of active suppression systems, rather, they use passive design features or thermal management features that prevent or limit thermal runaway. Either design-based or active thermal runaway mitigation approaches must achieve the UL 9540A criteria; accordingly, all systems must demonstrate that they pose no explosion or fire risk to adjacent exposures.

Project BESS would be designed, constructed, operated, and maintained in accordance with applicable best practices and regulatory requirements, including fire safety standards.

Batteries would be housed in an enclosure that contains integrated fire safety system and controls. If smoke, heat, or flammable gas were detected, an alarm would sound, strobes would flash, and any thermal runaway mitigation systems present would be activated. The BESS containers would have a fire rating, if required, based on large-scale fire test results. Final fire safety design would follow applicable codes and referenced standards and would be specific to the battery technology that is ultimately implemented. The BESS containers would have a fire rating in conformance with CEQA and County standards and specialized fire suppression systems. Final fire safety design would follow applicable standards and would be specific to the battery technology that is ultimately implemented.

Components of an integrated fire and safety system within a BESS enclosure include module-level monitoring and continuous control of the system, and internal cooling/HVAC system. The fire and safety system may include fire panels, aspirating hazard detection systems, smoke/heat detectors, gas ventilation and deflagrations systems, and suppression or thermal runaway systems. Over the long term, project operation and maintenance could introduce potential ignition sources such as maintenance vehicles used for project maintenance activities. The proposed inverters and solar panels may represent a potential ignition source; however, the potential for fire risk for these components is considered low as the Project will comply with the County Fire Department vegetation clearance requirements. Project vehicles will travel on roads that have been cleared of vegetation. As such, vegetation-related fires would be unlikely to occur on the site. All battery components for the project BESS would be installed within non-walking outdoor enclosures on electrically grounded concrete pads or foundations to minimize the potential for sparks or ignition to occur and include the integrated fire and safety systems within each enclosure as described above.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.10 - HYDROLOGY AND WATER QUALITY				
Would the Project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern 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?	☐	☒	☐	☐
i. Result in substantial erosion or siltation on- or off-site;	☐	☒	☐	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☒	☐	☐
iv. Impede or redirect flood flows?	☐	☒	☐	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	☐	☒	☐	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Discussion

Impact #3.4.10a – Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Construction and Decommissioning

Project construction would include clearing, mowing, excavation, and grading portions of the Project site. Grading may be used for PV array locations, access roads, parking areas, energy storage systems, building or equipment foundations, and laydown areas and would be performed selectively throughout the project site to minimize disturbance. There will be no operations and maintenance (O&M) building and the parking area and internal roadways will be graveled. The panels are not considered impervious surfaces; stormwater falling on the panels would drip off and infiltrate into the ground below. The stormwater runoff will be minimal and BMPs will be used during the construction phase to control stormwater drainage.

As noted in Impact #3.4.7b, the RWQCB requires an NPDES General Permit (No. 2012-0006-DWQ) for stormwater discharges associated with construction and land disturbance activities, the project developer must develop and implement a SWPPP that specifies BMPs to prevent construction pollutants from contacting stormwater, with the intent of keeping all products of erosion from moving offsite. The Project proponent is required to comply with the Construction General Permit because Project-related construction activities result in soil disturbances of at least one acre of total land area. MM GEO-2 requires the preparation and implementation of a SWPPP to comply with the Construction General Permit requirements. With implementation of MM GEO-2, the Project would not violate any water quality standards or waste discharge requirements (WDRs) during the construction or operational periods, and impacts would be less than significant.

Operations

Operation of the solar facility also would require limited use of certain hazardous materials for routine operations and maintenance. Accidental release of such materials could include fuels, paints, coatings, lubricants, and transformer oil, which would result in water quality degradation should the materials become entrained in stormwater. This would result in a potentially significant impact on water quality. However, as described above, implementation of MM HAZ-1 would require the implementation of a HMBP that would ensure the safe handling of hazardous materials onsite and provide the means for prompt cleanup in the event of an accidental hazardous material release. Implementation of Mitigation Measures MM HAZ-1 and MM GEO-1 would reduce any impacts regarding the handling of substances and accidental releases to a less-than-significant level.

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM GEO-1 and MM HAZ-1.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.10b – Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Water for construction and operation will come from a private well system or water being trucked into the site. The Project would require a temporary source of water during the construction process. It is estimated that the proposed Project would require a total of approximately six acre-feet of water during its three- to four-month construction period. On a per-acre basis, water demand for construction would represent a one-time use of approximately 0.15 acre-foot per acre, which would be far less than the average consumption of 2.6 acre-feet per acre per year for irrigated agriculture in the Westlands Water District (WWD).

During operations, the solar facility would be unmanned. There would be no restrooms needed for the solar facility and no process water would be required. Two-panel cleaning cycles per year would use approximately 98,000 gallons or 0.30 acre-feet of water. As discussed above, any water required for panel cleaning would be sourced from an onsite well or an offsite water purveyor. Water use would be a small fraction of that required for conventional agriculture.

During decommissioning, water would be used primarily for dust control. However, naturally occurring vegetation will be allowed to grow so there would be relatively little exposed dirt on the site. The vegatation will be routinely mowed and kept short to minimize fire hazards. Total water demand during decommissioning is anticipated to be less than the six acre-feet required during project construction. Therefore, the Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Therefore, impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.10c(i) – Would the Project substantially alter the existing drainage pattern 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 or siltation on- or off-site?

The rate and amount of surface runoff is determined by multiple factors, including the following: topography, the amount and intensity of precipitation, the amount of evaporation that occurs in the watershed, and the amount of precipitation and water that infiltrates to the groundwater. Although the Project site is substantially flat and without topography, it would alter the existing drainage pattern, which would have the potential to result in erosion or siltation on or offsite. The disturbance of soils onsite during construction could cause erosion, resulting in temporary construction impacts. In addition, the placement of permanent structures onsite could affect drainage in the long term.

As discussed in Impact #3.4.10a above, potential impacts on water quality arising from erosion and sedimentation are expected to be localized and temporary during construction and decommissioning. Construction-related erosion and sedimentation impacts, as a result of soil disturbance, would be less than significant after implementation of MM GEO-2, which requires approval of a SWPPP and BMPs required by the NPDES during construction. No drainages or other water bodies are present on the Project site, and therefore, the proposed Project would not change the course of any such drainages.

Once constructed, there would be minimal areas of impervious surface that might cause stormwater runoff during rain events; the majority of the site will allow rain to percolate to ground. However, the site will be graded in compliance with County requirements to direct stormwater to remain on site and impacts from stormwater would be considered less than significant.

With mitigation, the Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite. Therefore, the Project would have a less-than-significant impact with the incorporation of mitigation.

MITIGATION MEASURE(S)

Implementation of Mitigation Measure MM GEO-2.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.10c(ii) – Would the Project substantially alter the existing drainage pattern 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 in a manner which would result in flooding on- or off-site?

The Project footprint does not include a stream, river, or creek, and the Project would not involve any substantial alteration to the drainage pattern of the area. The existing Jacobs Canal runs along the western border of the site, however, that waterway will not be impacted by the Project, as it is outside the boundary of the Project footprint. The Project does not require significant grading. No major earth movement is required to place the support structure for the PV modules. Piles would be separated from each other and would therefore

avoid creating an impervious surface that would substantially re-route storm flows; rather, water would flow around each pile and continue in the same direction that currently prevails. Furthermore, the supports would not result in a substantial increase in impervious surfaces. The Project site is undeveloped and would remain pervious, with the exception of the BESS units and inverters, which represents approximately 12.5 percent of the entire site. Therefore, impacts related to alteration of the drainage pattern or an increase in runoff that results in flooding on- or off-site would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.10c(iii) – Would the Project substantially alter the existing drainage pattern 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 create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

See Impact #3.4.10a and #3.4.10c(i) above.

The Project site is located in a rural region with no existing or planned stormwater infrastructure. There are no existing stormwater drainage systems within the Project footprint, and no stormwater drainage systems are proposed as part of the Project. The Project would be required to adhere to Kings County Public Works stormwater requirements, which include measures to address stormwater controls on both management of runoff volume and water quality, including controlling erosion and protection of water quality of stormwater runoff. As described above under Impact #3.4.10c(i), a large amount of the project site would remain pervious and would continue to absorb runoff. This also would enable runoff produced by the new minor impervious surfaces to infiltrate within the Project site. Impacts related to stormwater drainage systems would be less than significant. The Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Implementation of MM HAZ-1 and MM GEO-2 would reduce any impacts regarding the handling of substances and accidental releases to a less-than-significant level.

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM HAZ-1 and MM GEO-2.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

Impact #3.4.10c(iv) – Would the Project substantially alter the existing drainage pattern 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?

See Impacts #3.4.10c(i) #3.4.10c(ii).

The proposed Project is located within a Federal Emergency Management Agency (FEMA) 100-year flood zone (A zone). The Project would introduce structures on the Project site such as the inverters, support structures, and BESS units that could impede or redirect flood flows. However, most of the improvements of the Project consist of solar panels, mounted on steel support posts that spread out across the Project site and would not substantially impede or redirect flood flows. Additionally, implementation of Mitigation Measure MM HYD-1 would require the preparation of a drainage plan that would design project facilities to have at least one foot of freeboard clearance above the 100-year flood depths for the solar arrays or the finished floor of any permanent structures, in accordance with Kings County design standards. Per MM HYD-1, grading for the Project would be designed so that water surface elevations during flood events would not be increased by more than one foot. Therefore, impacts related to flooding would be less than significant with implementation of MM HYD-1.

MITIGATION MEASURE(S)

MM HYD-1: Prior to the issuance of a building permit, the project proponent/operator shall complete a hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the project site. The study shall include, but is not limited to the following:

a. A numerical stormwater model for the Project site that evaluates existing and proposed (with Project) drainage conditions during storm events ranging up to the 100-year event.
b. The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the Project area that would result from Project implementation.
c. Engineering recommendations to be incorporated into the Project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the Project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite.
d. A specification that the final design of the solar arrays shall include one foot of freeboard clearance above the calculated maximum flood depths for the solar arrays or the finished floor of any permanent structures. Solar panel sites located within a 100-year floodplain shall be graded to direct potential flood waters without increasing the water surface elevations more than one foot or as required by Kings County's Floodplain Management Ordinance.

e. The hydrologic study and drainage plan shall be prepared in accordance with the Kings County Flood Damage Prevention Ordinance and Kings County Development Standards, and approved by the Kings County Public Works and Kings County Community Development Agency prior to the issuance of building permits.
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LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

Impact #3.4.10d – Would the Project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?

See Impact #3.4.10c(iv). The site is in the FEMA 100-year flood zone. The Project will be engineered in a way to minimize impacts from floodwaters with implementation of MM HYD-1.

According to the Flood Hazards Area map (Figure HS-7, page HS-16) included in the Health and Safety Element of the *2035 Kings County General Plan*, the Project site is located within the Pine Flat Dam inundation zone (Kings County, 2010). If Pine Flat Dam failed while at full capacity, its floodwaters would arrive in Kings County within approximately five hours (Kings County, 2010). This would give ample time to reach an area away from the inundation zone. Damaged structures because of an inundation event could be easily replaced at the Project site. Therefore, the Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding because of the failure of a levee or dam.

The Project site is not located near the ocean or a steep topographic feature (i.e., mountain, hill, bluff, etc.). Therefore, there is no potential for the site to be inundated by tsunami or mudflow.

MITIGATION MEASURE(S)

Implementation of Mitigation Measure MM HYD-1.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated.***

Impact #3.4.10e – Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The Project site is located within the Westside Basin, for which the Groundwater Sustainability Plan (GSP) (Westlands Water District, 2020). The purpose of the GSP is to concurrently optimize groundwater use and groundwater storage in the Westside Subbasin and meet the regulatory requirements set forth in the Sustainable Groundwater Management Act (SGMA). Minimal use of groundwater is proposed for the Project, and the

minimal impervious surface coverage added by the Project would have no discernable effect on groundwater recharge at the site. Therefore, the Project would not conflict with or obstruct implementation of the GSP for the Westside Subbasin.

As noted in Impact #3.3.10b, the Project would require a temporary source of water during the three- to four-month construction or decommissioning process. It is estimated that the proposed Project would require a total of approximately six acre-feet of water during short-term construction and approximately 0.30 acre-feet of water on an annual basis. This is much less water than would be needed to irrigate crops. This limited and minimal use of water would not have the potential to substantially deplete groundwater supplies or conflict with the GSP. Impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.11 - LAND USE AND PLANNING					
Would the Project:					
a.	Physically divide an established community?	☐	☐	☐	☒
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Discussion

Impact #3.4.11a – Would the Project physically divide an established community?

The physical division of an established community could occur if a major road (expressway or freeway, for example) were built through an existing community or neighborhood, or if a major development was built which was inconsistent with the land uses in the community such that it divided the community. The environmental effects caused by such a facility or land use could include lack of, or disruption of, access to services, schools, or shopping areas. It might also include the creation of blighted buildings or areas due to the division of the community.

The proposed Project is located on an approximately 119-acre, undeveloped parcel in a rural, unincorporated area of Kings County and does not propose any facilities that will be built through an established community. No established communities exist in the Project area; therefore, there is no potential for the Project to physically divide and established community. There would be no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.11b – Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Project site has a General Plan land use designation of General Agriculture and is zoned General Agriculture-20 District (AG-20). Pursuant to Kings County Development Code Article 4, solar energy electrical facilities are permitted within the AG Zone with the approval of a Conditional Use Permit. Thus, upon approval of CUP 23-02, the Project would not conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.12 - MINERAL RESOURCES					
Would the Project:					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	☐	☒
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Discussion

Impact #3.4.12a – Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

The proposed solar facility would be located in areas with agricultural uses that are not designated for mineral resource uses. Additionally, there are no active mining sites within the vicinity of the Project Site (Kings County 2010). Neither the Project site nor the surrounding area is designated as a Mineral Resources Zone (MRZ) by the State Mining and Geology Board, nor is it currently being utilized for mineral extraction. Thus, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the state, and impacts would not occur.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.12b – Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The General Plan states that few commercial mining and mineral extraction activities occur in the county and currently, only limited excavation of soil, sand and some gravel is used for commercial purposes (Kings County, 2010). Additionally, the General Plan does not designate the site for mineral and petroleum resources activities. The Project site and

surrounding lands are zoned for agricultural uses. No mining occurs in the Project area or in the nearby vicinity and there are no anticipated mineral extraction activities to be conducted in the future as a result of the Project. The Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan and would therefore have no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.13 - NOISE					
Would the Project result in:					
a.	Generation of 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?	☐	☒	☐	☐
b.	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c.	For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	☒

Discussion

Impact #3.4.13a – Would the Project result in generation of 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?

Noise would be generated during the construction, operation, and decommissioning phases of the Project. In accordance with the policies contained in the Noise Element of the General Plan, a significant noise impact would occur if the maximum noise level would exceed County standards, outlined in Table 3.4.13-1 (Kings County, 2010).

Table 3.4.13-1
Kings County Noise Standards

Land Use	Average (Leq)/Maximum (Lmax) Outdoor Area		Interior
	Daytime	Nighttime	Day/Night
All residences	55/75	50/70	35/55
Churches, Meeting Hall, Schools, and Libraries	55/75	--	35/55

Source: Table N-8 in the Noise Element of the 2035 Kings County General Plan (2010)
Leq = equivalent continuous sound level; Lmax = maximum noise level

The Project site is in an area utilized predominantly for agricultural uses. The closest sensitive receptor is an offsite residence west of 18th Avenue, approximately 250 feet from the boundary of the Project site (see Figure 3.14-1). There is also a residence approximately 1,300 feet east and another 1,390 feet south of the Project. A church is located approximately 350 feet north of the site, as well. However, the equipment being installed will be set back from the property boundary due to setback requirements as well as the internal 20 foot wide access road that will be installed along the perimeter of the site. As shown on Figure 3.13-1, The clostest equipment will be approximately 350 feet from the house, and the BESS units will be approximately 1,160 feet away. The potential for Project-generated noise to exceed applicable noise standards is discussed below.

Construction/Decommissioning

The proposed Project would create noise during the three-month construction process. The construction noise would be short-term and periodic in nature and generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators, and pile drivers. Pile driving and grading equipment would cause the loudest noise levels. Minimal grading would be required for the Proposed Project. Construction noise levels generated by commonly-used grading equipment (i.e., loaders, graders, and trucks) generate noise levels that are identified in Table 3.4.13-2.

Table 3.4.13-2
Estimated Noise Levels for Construction Equipment

	Individual Equipment Noise Levels (dBA)[a]		
Type of Equipment	100 Ft.	300 Ft.	500 Ft.
Backhoe	72	62	58
Compactor (ground)	77	67	63
Compressor (air)	72	62	58
Concrete Batch Plant	77	67	63
Concrete Mixer Truck	73	63	59
Concrete Saw	84	74	70
Crane	75	65	61
Dozer	76	66	62
Dump Truck	70	60	56
Flat Bed Truck	68	58	54
Excavator	75	65	61
Front End Loader	73	63	59
Generator	75	65	61
Grader	79	69	65
Impact or Vibratory Pile Driver	95	85	81
Jackhammer	83	73	69
Paver	71	61	57
Pneumatic Tools	79	69	65
Pumps	75	65	61

Type of Equipment	Individual Equipment Noise Levels (dBA)[a] 100 Ft.	300 Ft.	500 Ft.
Rollers	74	64	60
Tractor	78	68	64

Source: (Federal Highway Administration, 2006)
Notes: a. Based on estimated major noise-generating construction equipment. Not all equipment may be represented.

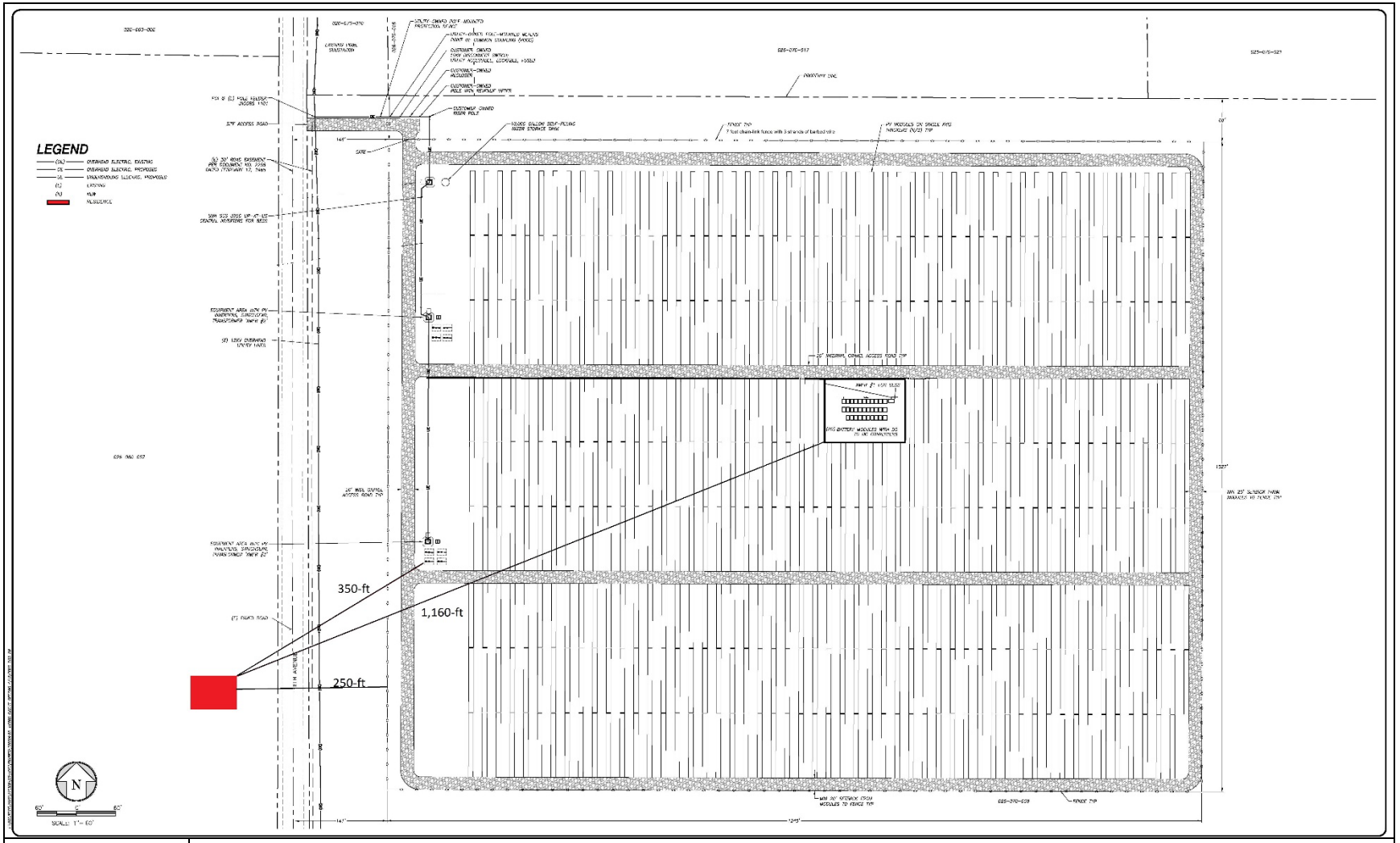

Figure 3.14-1
Distances from residence

Construction noise levels generated by commonly-used grading equipment (i.e., loaders, graders, and trucks) generate noise levels that are well below the threshold, but the use of pile drivers is identified in the highest noise level from the proposed construction equipment is estimated to be approximately 95 dBA at 100 feet, 85 dBA at 300 feet, and 81 dBA at 500 feet. However, as noted in the County General Plan Noise Element N Policy B1.1.3- noise associated with construction activities is considered temporary, but will adhere to applicable noise standards.

Project construction would include site preparation, solar panel system grading and installation, construction of the gen-tie transmission lines, testing, and site cleanup work. Temporary construction-related noise levels would be higher than existing ambient noise levels in the project area today but would not occur once construction is completed. Noise impacts associated with construction activities typically depend on the noise levels generated by the type of equipment in use, the duration of usage of the equipment and the distance at which the equipment is used in respect to nearby sensitive receptors. Noise impacts typically occur when construction activities occur beyond the limited hours of construction and/or within close proximity to sensitive receptors (residential land uses). However, noise levels associated with construction activities could be considered a short-term impact in regards to a temporary increase over existing ambient noise levels.

A construction-related noise level threshold is applied from the Criteria for Recommended Standard: Occupational Noise Exposure prepared by the National Institute for Occupational Safety and Health (NIOSH). A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. To evaluate whether the Project would generate potentially significant short-term noise levels at off-site sensitive receiver locations a construction-related NIOSH noise level threshold of 85 dBA Leq is used. To evaluate whether the Project would generate potentially significant short-term noise levels at off-site sensitive receiver locations a construction-related NIOSH noise level threshold of 85 dBA Leq is used. Noise levels generated by heavy construction equipment can range from approximately 66.5 dBA to 76.6 dBA when measured at 100 feet.

The Project site is surrounded by agricultural land, and the closest offsite sensitive receptor is a residential use located approximately 250 feet to the west. To ensure the Project complies with County noise requirements, Mitigation Measure MM NSE-1 that construction equipment be directed away from sensitive receptors, be located as far away as possible, and that all equipment will have manufacturer-approved mufflers and baffles. Mitigation Measure MM NSE-2 requires that a Noise Disturbance Coordinator be identified and that signs providing contact information be installed along the Project fence line in the event noise issues arise. It is anticipated that with implementation of NSE-1 and NSE-2, impacts related to construction noise would be less than significant.

Operations

As shown on the site plan, with the required setbacks from 18th Avenue, the actual solar equipment will be approximately 350 feet from the residence. During operations, noise would be generated by inverters located within the solar array, as well as the BESS units. Typical BESS inverters generate noise levels of less than 79 dBA at a distance of three meters

(10 feet). It is anticipated that based on the distance from the equipment, particularly the BESS units, noise will attenuate to the point that it should be negligible.

The BESS unit will be located in the center of arrays, approximately 1,160 feet from the nearest sensitive receptor. At this distance, the BESS and inverter noise would not be audible and would be below the maximum 65 dBA noise level criteria established by the County. Additionally, during operations, the facility would be unmanned, with no daily site visits by staff. Occasional visits by fewer than five staff persons for maintenance and twice annual cleaning would result in a negligible noise increase and would be short-term and transitory. Therefore, operational noise impacts would be less than significant.

The Project consists of the construction of solar panels. The only noise will be associated with the construction activity. The installation of the solar panels will produce minimal amounts of noise. No heavy equipment is required. No structures other than the solar panels will be erected. There are no noise-sensitive uses in the vicinity and the construction activity, which will not cause significant noise will be during normal construction hours.

MITIGATION MEASURE(S)

MM NSE-1: The following shall be implemented by the Project proponent for the duration of Project construction:

a. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site.
b. The construction contractor shall locate the pile driver such that the rear of the vibratory pile driver faces toward the noise-sensitive receptors when the machine is being utilized.
c. The construction contractor shall locate equipment staging in areas that will create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all Project construction.
d. The construction contractor shall ensure that all construction equipment is equipped with manufacturer-approved mufflers and baffles.
e. Project construction shall occur during the daytime hours (7:00 a.m. to 6:00 p.m. Monday through Friday).

MM NSE-2: Prior to the issuance of grading permits, the following shall be implemented:

a. A Noise Disturbance Coordinator shall be identified. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. This would include but not be limited to ensuring construction activities start no earlier than 7:00 am and end no later than 6:00pm during the week, inspecting and maintaining equipment, and minimizing idling of trucks on site, etc.

b. A sign that is legible at a distance of 50 feet shall also be posted at the construction site throughout construction, which includes the contact information for the Noise Disturbance Coordinator.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.13b – Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

As shown in Table 3.4.13-3, Representative Vibration Source Levels for Construction Equipment, the maximum groundborne vibration levels generated by project construction equipment would be 0.14 in/sec PPV at 100 feet and 300 feet from the source of activity. These would be the vibration levels from post-driving that are conservatively approximated as pile driving. Post-driving would only occur during construction of the PV modules on-site. Post drivers used during construction would be crawler or truck mounted, which generally result in less impact (i.e., lower vibration levels). At both 100 and 300 feet, these values are below the 0.2 in/sec PPV significance threshold for non-engineered timber and masonry buildings and the 0.4 in/sec PPV human annoyance criteria. Therefore, no sources of groundborne vibration would be expected to impact receptors outside of the work areas, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Groundborne vibration impacts resulting from Project construction would be less than significant.

Table 3.4.13-3
Representative Vibration Source Levels for Construction Equipment

Equipment	Approximate Peak Particle Velocity at 100 Feet (inches/second)	Approximate Peak Particle Velocity at 300 Feet (inches/second)
Large bulldozer	0.011	0.006
Loaded trucks	0.01	0.005
Small bulldozer	0.0004	0.00019
Jackhammer	0.005	0.002
Vibratory roller	0.03	0.013
Vibratory Pile Driver	0.14	0.14
Caisson Drilling	0.01	0.006

Source: Caltrans Transportation and Construction Vibration Guidance Manual

Projects that produce noise levels from 75 to 95 dba 50 feet from the source could potentially affect adjacent sensitive receptors (Kings County, 2009). Typically, ground-borne vibration generated by construction activity attenuates rapidly with distance from the source of the vibration. Therefore, vibration issues are generally confined to distances of less than 500 feet (U.S. Department of Transportation, 2005). The construction and installation of solar panels will not cause excessive groundborne vibration or significant noise levels.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.13c – For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

The Project site is not located within the Kings County Airport Land Use Compatibility Plan designated area, nor within two miles of a public airport or public use airport (County of Kings, 1994). The Naval Air Station Lemoore is located approximately 7.3 miles from the Project site. Hanford Municipal Airport is located approximately 10 miles northeast. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels, and there would be no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.14 - POPULATION AND HOUSING				
Would the Project:				
a. Induce substantial population unplanned growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

Impact #3.4.14a – Would the Project induce substantial population unplanned growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The Project does not include housing or business, which would directly induce growth. The Project includes installation and operation of a solar power facility, which is consistent with policies adopted by the State of California to replace fossil-fuel power generation with renewable energy generation. The Project would connect to the existing electricity grid and would not extend or expand infrastructure. Construction crews are expected to come from the region, and not require permanent housing during short-term construction. Thus, indirect growth would not occur. Overall, there are no features of the Project that would be expected to induce substantial population growth and there would be no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

Impact #3.4.14b – Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

As discussed, the Project would be constructed on undeveloped land in an undeveloped agricultural area. The Project would not displace existing housing or require replacement housing. There would be no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.15 - PUBLIC SERVICES				
Would the Project:				
a. 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 could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

Discussion

Impact #3.4.15a(i) – Would the Project 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 could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services - Fire Protection?

Fire protection for the Project area is provided by the Kings County Fire Department (KCFD), which operates 10 fire stations, and one headquarters office in Hanford with 88 full-time employees. The Fire Department responds to over 5,100 calls annually, averaging 14 calls daily (KCFD, 2020).

The nearest KCFD fire stations to the Project site are KCFD Station #7, approximately four miles north of the project site. A backup response would be provided by Station #5 (Armona), which would respond to a call from the site within the KCFD's 20-minute rural response time goal. The KCFD maintains mutual aid agreements with the fire departments of Lemoore and Hanford, and also with the NAS Lemoore Fire Department and Santa Rosa Rancheria Fire. The Potential Fire Hazards map of the Kings County General Plan Health and

Safety Element (General Plan Figure HS-9) shows most of the Project site as being "Moderate to High Threat." The Project site is not included in a Fire Hazard Severity Zone (FHSZ) as mapped by the California Department of Forestry and Fire Protection (Cal Fire, 2007a, Cal Fire, 2007b).

The proposed Project would construct and operate an unmanned solar facility. There would be no permanent onsite staffing that could require the need for emergency services. In addition, the Project includes comprehensive safety measures that comply with federal and State worker safety and fire protection codes and regulations that would be verified during the permitting process, which would minimize the potential for fires to occur during Project construction and operations. As noted in Impact #3.4.9g, a 10,000 gallon self-filling water storage tank connected to a water source will be installed on the site, Additionally, there will be a Condition of Approval that will require the Project developer/operator to pay for Kings County Fire and Kings County Sheriff services when those emergency services are provided to the Project site.

Additionally, the Project includes the preparation and implementation of a Pest Management Plan and Weed Abatement Plan, as required under the County Development Code. The plan would ensure that combustible vegetation on and near the Project boundary would be actively managed during the construction and operational phases to minimize fire risk. Vegetation height would be kept low to the ground through routine mowing and trimming with mechanical equipment. The gravel driveways to be constructed around the project perimeter would provide fire breaks. Therefore, impacts related to fire protection would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.15a(ii) – Would the Project 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 could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services – Police Protection?

Law enforcement services in the project area are provided by the Kings County Sheriff's Office (KCSO) from its headquarters at 1444 West Lacey Boulevard approximately nine miles northeast of the Project site. The Department currently has 148 sworn officers and 101 non-sworn personnel. The County is divided into six beat districts with five Sheriff's substations located throughout Kings County. The NAS Lemoore police station is approximately 7.5 miles west, and the Santa Rosa Rancheria security office is approximately 1.5 miles northeast of the site.

As described in the previous response, the Project site would be unmanned and would not have permanent staffing that could generate the need for sheriff services. As noted above, a 10,000 gallon self-filling water storage tank connected to a water source will be installed on the site, Additionally, there will be a Condition of Approval that will require the Project developer/operator to pay for Kings County Fire and Kings County Sheriff services when those emergency services are provided to the Project site. The Project would include 7-foot security fencing around the panels and 24-foot wide access gates would provide direct access for emergency equipment. The entry gates would have locks or similar devices to allow 24-hour access for emergency responders. Additionally, the Project would utilize sensors and cameras for remote security management before they send someone out to the site. Therefore, the proposed Project would not result in impacts related to police protection, and impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.15a(iii) – Would the Project 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 could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services – Schools?

Construction and operation of the Project would place no demand on school services because it would not involve the introduction of housing to the Project site, and the short-term demand for construction would not result in new residents to the area. In addition, the Project site would be an unmanned facility and would require limited maintenance-related employment needs. Thus, the Project would not result in impacts on schools.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.15a(iv) – Would the Project 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 could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services – Parks?

See Impact #3.4.15a(iii). The Project would not increase the number of residents in the County and there would be no impacts related to parks.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.15a(v) – Would the Project 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 could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services – Other Public Facilities?

See Impact #3.4.15a(iii). The Project would not increase the number of residents in the County and will not increase demand or generate new impacts on government or other facilities such as libraries and the court system. There would be no impacts.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.16 - RECREATION				
Would the Project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

Impact #3.4.16a – Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

See Impacts #3.4.15a(iii) and (iv). The Project will not increase the use of existing neighborhood and regional parks or other recreational facilities. The Project would have no impact on these services, and no mitigation would be required.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be *no impact*.

Impact #3.4.16b – Would the Project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

See Impacts #3.4.15 a (iii) and (iv). The Project will not require construction or expansion of recreational facilities. As such, the Project would have no impact and no mitigation would be required.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.17 - TRANSPORTATION					
Would the Project:					
a.	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b.	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d.	Result in inadequate emergency access?	☐	☐	☐	☒

Discussion

A Trip Generation Memo (QK, 2023d) was prepared for the Project, which is included in Appendix G of the document.

Impact #3.4.17a – Would the Project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The Kings County General Plan Circulation Element identifies SR 198 and SR 41 as principal arterials. Access to the Project site would be via 18th Avenue, which provides access to Kansas Avenue. These roadways are two-lane rural roads serving adjacent farms, residences, and other solar facilities. There are no significant traffic-generating land uses in the vicinity of the Project and therefore traffic volumes on the adjacent roadways are expected to be low. No direct access to SR 198 or SR 41 is planned. The Project would not require a new access point to any Circulation Element roads and would have no impact on either SR 198 or SR 41.

In addition, the Project would not modify any bicycle paths, pedestrian pathways, or transit facilities. Because the site would be unmanned, there would be no increase in demand for pedestrian or bicycle transportation. Overall, the Project would result in no impacts related to a conflict with any applicable plan, ordinance, or program addressing the circulation system.

The construction trip generation is shown in Table 3.4.17-1 and has been calculated for total trips and for passenger car equivalent (PCE).

Table 3.4.17-1
Construction Trip Generation

		Vehicle Trips			PCE Trips		
	PCE	Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour	PM Peak Hour
Phase 1 - Mobilization							
Workers (estimated 20 workers)	1.0	40	5	5	40	5	5
Flatbed Delivery Trucks	3.0	14	2	2	42	6	6
Porta Let Trucks	2.0	6	1	1	12	2	2
Phase 1 Total		**60**	**8**	**8**	**94**	**13**	**13**
Phase 2 - Site Preparation and Grading							
Workers (estimated 35 workers)	1.0	100	13	13	100	13	13
Water Trucks	2.0	10	1	1	20	2	2
Porta Let Trucks	2.0	6	1	1	12	2	2
Phase 2 Total		**116**	**15**	**15**	**132**	**17**	**17**
Phase 3 - On-Site Construction and Panel Installation							
Workers (estimated 60 workers)	1.0	160	20	20	160	20	20
Flatbed Delivery Trucks	3.0	16	2	2	48	6	6
Water Trucks	2.0	6	1	1	12	2	2
Porta Let Trucks	2.0	10	1	1	20	2	2
Phase 3 Total		**192**	**24**	**24**	**240**	**30**	**30**

Construction

As shown in Table 3.4.17-1, the phase with the highest construction trip generation would be during Phase 3 - the construction and installation of the solar modules, which would generate an estimated 192 daily and 24 peak-hour trips. When adjusted to account for PCE, Phase 3 would generate 240 daily and 30 peak-hour trips. However, this activity would be of short duration and would not impact area traffic.

It is anticipated that construction of the Project would occur Monday through Friday and that construction workers would arrive on-site before 7:00 a.m. to start work at 7:00 a.m. and would depart prior to the 4:00 p.m. to 6 p.m. peak commute period. However, the trip generation assumes that 25 percent of workers may arrive during the peak period between 7:00 a.m. and 9:00 a.m. and could depart between 4:00 p.m. and 6:00 p.m. Most construction and delivery trucks would arrive and depart the site throughout the day. For the trip generation, it has been assumed that at least one of each type of off-site construction vehicle would arrive or depart the site during peak hours. Based on this analysis, impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant.***

Impact #3.4.17b – Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

The CEQA Guidelines Section 15064.3(b) provides criteria for analyzing transportation impacts. For land use projects, such as the Proposed Project, CEQA Guidelines Section 15064.3(b) states that vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. In addition, it states that the analysis includes the evaluation of factors such as the availability of transit, proximity to other destinations, etc.

The County of Kings has not adopted VMT analysis guidelines; therefore, guidelines from the OPR *Technical Advisory on Evaluating Transportation Impacts In CEQA* (Office of Planning and Research, 2018), are applied. The OPR guidelines state that small projects that generate fewer than 110 average daily trips during project operation would be presumed to have a less than significant impact on VMT and are generally exempt from further analysis of VMT. Construction traffic is not included in the analysis of VMT, as these trips are temporary and of short duration.

The operation of the Project would generate approximately one to two trips per week, except for occasional panel cleaning which could generate 10 daily trips. For this reason, the Project would not result in a conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)

The Project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) Therefore, the impact would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.17c – Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project would utilize existing roadways and no new roads are being proposed as part of the Project design. The Project design does include a drive approach and approval of an encroachment permit, in order to provide improved access to the Project site. The new drive

approach and internal access roads would be designed according to all applicable County safety regulations and standards. Therefore, the Project would not substantially increase hazards due to a geometric design feature or incompatible uses and would have a less-than-significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

Impact #3.4.17d – Would the Project result in inadequate emergency access?

The Project's construction and operation would not interfere with emergency access for emergency vehicles or nearby uses as all activities would be done on the site and would not interfere with the adjacent street traffic. The solar facility would be constructed in compliance with Kings County Fire Department requirements to provide adequate access and circulation for emergency vehicles. In addition, the site would be unmanned, significantly reducing the potential need for emergency services onsite. Therefore, no impact would occur and no mitigation is required. The Project would not result in inadequate emergency access and would, therefore, result in no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.18 - TRIBAL CULTURAL RESOURCES				
Would the Project:				
a. Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
ii. 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 Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the Lead Agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Discussion

Impact #3.4.18a(i) – Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Please see Impacts #3.4.5a and b above. No National Register of Historic Places, California Register of Historical Resources, or local register eligible or listed historic properties/cultural resources have been identified in or adjacent to the Project site. There

will be no impact to any site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe that is listed in any historical register.

With implementation of Mitigation Measures MM CUL-1 through MM CUL-4 the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources.

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM CUL-1 through MM CUL-4.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

Impact #3.4.18a(ii) – Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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, and 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 Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the Lead Agency shall consider the significance of the resource to a California Native American tribe?

Please see Impacts #3.4.5a and b above. With implementation of Mitigation Measure MM CUL-1 through MM CUL-4, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource 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 Public Resources Code Section 5024.1.

MITIGATION MEASURE(S)

Implementation of Mitigation Measures MM CUL-1 through MM CUL-4.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant with mitigation incorporated***.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.19 - UTILITIES AND SERVICE SYSTEMS				
Would the Project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider that serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. 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?	☐	☒	☐	☐
e. Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	☐	☒	☐	☐

Discussion

Impact #3.4.19a – Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects?

Water

The majority of water use needed for the project would occur during the approximate 3-4 month peak construction period. Water for construction would primarily be used for dust suppression during construction. Smaller quantities of water would be required for preparation of the concrete required for foundations and other minor uses. As noted

previously, Water for dust-suppression is anticipated to use the most water but is not expected to exceed 6 acre-feet over the 4-month construction phase. It is assumed that water usage during decommissioning of the facility would use approximately the same amount of water that is estimated for construction purposes.

The project's operational water consumption would be approximately 98,000 gallons or 0.30 acre-feet per year. It is anticipated that panels would be washed up to two times a year, using small water trucks. Water would be supplied by the same supplier who has indicated there is adequate capacity to provide water for operation of the project. Therefore, operation of the project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects, and impacts would be less than significant.

Wastewater and Stormwater

On-site restroom facilities for the construction workers would be provided by portable units to be serviced by licensed providers; no connection to a public sewer system is required for project construction and decommissioning, and therefore, water for such purposes is not required. Nor will wastewater be generated by the project that would require connection to an existing wasatwater treatment plant.

There is no O&M building proposed for the project. No offsite sewage or disposal connections to a municipal sewer system exist or are proposed. Therefore, all wastewater operations would occur within areas proposed for disturbance or areas that are already in operation. Thus, operation of the project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be less than significant

Electrical, Telecommunications and Natural Gas

Project operation would generate a approximately 5 MW of renewable electrical energy including the associated energy storage systems in the BESS. The generated electrical energy would help to reduce and/or offset electricity on the state-wide utility grid. The proposed project also would result in the use and operation of generation tie in lines and up to 15 kV overhead line that would transmit electricity to the existing Jacobs substation to the north. Thus, the operation of the new or expanded energy infrastructure would not cause significant environmental effects. Impacts would be less than significant.

Telecommunication equipment including underground and overhead telephone, fiber optics and wireless communications infrastructure such as cellular, satellite, or microwave towers would be required to enable operation of the proposed project. This equipment will be both on-site and off-site and would be installed in areas proposed for disturbance within the project footprint. operation of the project would not require or result in the relocation or construction of new or expanded telecommunication facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be less than significant.

The project will not use natural gas during the operation phase. Therefore, operation of the project would not require or result in the relocation or construction of new or expanded natural gas facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be less than significant.

The project will not require the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects. Impacts are less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.19b – Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

As noted in Impact #3.4.10 (b), it is estimated that the proposed Project would require a total of approximately 6 acre-feet of water during its 3-4 month construction period and approximately 0.30 acre-feet of water annually for panel cleaning. During decommissioning, water would be used primarily for dust control. However, since naturally occuring vegetative cover would be maintained on the site during operations, there would be relatively little exposed soil that would require watering for dust suppression.

Total water demand during decommissioning is anticipated to be less than the 6 acre-feet required during project construction. On a per-acre basis, water demand for th proposed project would be considerably less than the average consumption of 2.6 acre-feet per acre per year for irrigated agriculture in the WWD. Based on the information provided the existing water supplies would be sufficient to serve the proposed project water demand, and impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.19c – Would the Project result in a determination by the wastewater treatment provider that serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

The proposed project would not generate a significant amount of wastewater. No offsite sewage or disposal connections to a municipal sewer system exist or are proposed for operations. The project does not include a habitable structure with restroom facilities. During construction, portable toilets and portable hand washing facilities would be serviced by truck (not served by septic system) and any wastewater would be disposed of at an approved off-site disposal facility. Therefore, wastewater generated would be negligible and would not exceed wastewater treatment capacity of any treatment providers. Impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.19d – Would the Project 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?

As described in Impact 3.4.2 (a), Mitigation Measure AG-4 requires preparation of a Solid Waste Management Plan pursuant to Section 1112.B.2.g of the County Development Code to ensure that solid waste generated during project construction, operation and decommissioning is properly disposed of and/or recycled. Nonrecyclable construction and operational waste would be disposed of at the Kettleman Hills Facility Landfill or other local landfill permitted to accept such waste.

The Kettleman Hills Facility Landfill is permitted to accept 4,500 tons per day of solid waste and is permitted to operate through 2046 (CalRecycle, 2023). The proposed project consists of short-term waste generation limited to minor quantities of construction debris, most of which would be recyclable. The landfill has the capacity to accommodate the limited solid waste from the 3-month construction process. The panels would eventually need to be disposed of (decommissioned). Most parts of the proposed solar system are recyclable. Panels typically consist of silicon, glass, and a metal frame. Panel structures typically consist of aluminum and concrete. These materials can be recycled. Concrete from deconstruction would be recycled through local recyclers. Metal and scrap equipment and parts that do not have free flowing oil would be sent for salvage. Equipment containing any freeflowing oil would be managed as hazardous waste and be evaluated before disposal at a properly-permitted disposal facility. Oil and lubricants removed from equipment would be managed as used oil and disposed in accordance with applicable hazardous waste disposal requirements. Therefore, impacts related to landfill capacity would be less than significant with the implementation of Mitigation Measure AG-4.

MITIGATION MEASURE(S)

Implementation of AG-4.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated.*

Impact #3.4.19e – Would the Project comply with federal, State, and local statutes and regulations related to solid waste?

The proposed project would generate solid waste during construction and decomissioning for the solar facility. Common construction waste may include metals, masonry, plastic pipe, rocks, dirt, cardboard, or green waste related to land development. AB 341 required Kings County to attain a waste diversion goals of 75 percent by 2020 through reduction, recycling, or composting. In addition, as part of compliance with CALGreen requirements, Kings County implements the following construction waste diversion by requiring the submittal of a Solid Waste Management Plan per mitigation measure AG-4.

Furthermore, the California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires expanded or new development projects to incorporate storage areas for recycling bins into the project design. Implementation of Mitigation Measure AG-4 would ensure compliance with waste diversion and recycling requirements by requiring recycling during construction, operation, and decommissioning of the project. The project would be required to comply with all federal, State, and local statutes and regulations related to the handling and disposal of solid waste. Therefore, implementation of the project would result in less-than-significant impacts regarding compliance with management and reduction statutes and regulations related to solid waste.

MITIGATION MEASURE(S)

Implementation of AG-4.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated.*

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	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.20 - WILDFIRE				
Would the Project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. 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?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Discussion

Impact #3.4.20a – Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

The Office of Emergency Management of Kings County oversees the implementation and adoption of various emergency and hazard mitigation plans, including the County's Multi-Jurisdictional Multi-Hazard Mitigation Plan (Kings County, 2007). The Proposed Project is located within an existing parcel and would not modify any roadways servicing emergency response or evacuations. There would be no impact related to the impairing of or physical interference with an adopted emergency response plan or emergency evacuation plan.

The Project as proposed would not disrupt the operations or implementation of the Emergency Operations Plan as it is located in the rural portion of unincorporated Kings County on private property, does not propose any unique obstructions, or generate excessive amounts of traffic which could disrupt response times of emergency personnel.

Therefore, the Project would have a less-than-significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.20b – Would the Project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

In most of Kings County, the California Department of Forestry and Fire Protection (Cal Fire) ranks fuel loading as low. Fuels are mainly crops and grasses. The project site is in an area with moderate fuel hazards. Most of Kings County is flat, sloping slightly towards a topographic low point in the Tulare Lake Basin, which reduces the fire hazard through much of the county. The project Site is not located within a high fire hazard severity zone and is not within a Local Responsibility Area (Cal Fire, 2023). In addition, the Project Site is vacant and relatively flat and does not contain a slope or other factors that could exacerbate wildfire risks. The Proposed Project would be an unmanned facility and would not include any habitable structures. Therefore, the Project would not involve any occupants that could be exposed to pollutant concentrations from a wildfire.

According to the Wildfire Hazards Map within the Local Hazard Mitigation Plan, the Project site is located within the Non-Wildland/Non-Urban Fire Hazard Severity Zone, as it is located in the flat, non-sloping region of Kings County where wildfire is unlikely. Therefore, the Project would have a less-than-significant impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant*.

Impact #3.4.20c – Would the Project 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?

See also Impact 3.4.9 (g) regarding the BESS unit.

The project site is located adjacent to agricultural lands and is not located within a high fire hazard severity zone The project would implement solar infrastructure and associated conduits and wires to convey the electricity generated onsite. However, this infrastructure would not exacerbate the fire risks of the area. The solar arrays would be above ground on

piles. The conduits and wires would be buried in trenches that run between rows and/or installed above-grade running along the backside of strings to connect the output of each string to the inverters. Additionally, the onsite naturally occurring vegetation would be regularly mowed to avoid interference with electrical equipment. The Project includes a 24-foot wide access gate and setbacks from the solar arrays that would provide direct access for emergency equipment. The entry gate would have a knox lock or similar device to allow 24-hour access for emergency responders. In addition, a 10,000 gallon water tank would be installed, as required by applicable County fire codes, to provide a water source for emergency fire access. Water would be sourced from an onsite well or an offsite water purveyor. Therefore, although the Project includes installation of infrastructure, it would not exacerbate fire risks. Thus, impacts would be less than significant.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

Impacts would be ***less than significant***.

Impact #3.4.20d – Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

As described in the previous responses, the Project would install solar infrastructure that would not exacerbate fire risks. In addition, the Project Site does not include or adjacent to any steep slopes or locations where landslides could occur. In addition, the Project Site would be unmanned and would not generate permanent onsite employees. Therefore, the Project would not expose people or structures to impacts related to post-fire slope instability or drainage changesThe Project is not located on any downslope or along a stream that would result in any runoff or slope instability to adjacent properties. Therefore, there is no impact.

MITIGATION MEASURE(S)

No mitigation is required.

LEVEL OF SIGNIFICANCE

There would be ***no impact***.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
3.4.21 - MANDATORY FINDINGS OF SIGNIFICANCE					
a.	Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b.	Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c.	Does the Project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

Impact #3.4.21a – Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

As discussed in Section 4.4. *Biological Resources*, the Project could result in potentially significant effects to several species including San Joaquin kit fox, burrowing owl, Swainson's hawk, migratory birds, and American badger. However, with the implementation of Mitigation Measures BIO-1 through BIO-5, these potential impacts would be reduced to less-than-significant levels. The developer will have a preconstruction suvey completed prior to grading, and if no special sstatus species are obseved, no further action is required. If special status species are noted on or near the site, specific measure will be taken, such as additional focused surveys for species such as Swainson's hawk, burrowing owls or San Joaquin kit fox

and/or construction monitory by a qualified biologist. With implementation of MM BIO-1 through BIO-5, the Project would have no impact or a less-than-significant impact on all other species and biological communities.

As discussed in Section 4.5. *Cultural Resources* and Section 4.X Tribal *Cultural Resources* , the Project Site does not contain any known historic or prehistoric attributes and would not eliminate important examples of the major periods of California history or prehistory. The Project could result in potentially significant effects to historic and prehistoric archaeological resources, including human burials. The Project will include a Cultural Resources Alert on all plans, and will coordinate activities with the Santa Rosa Rancheria cultural staff, and a Native American monitor may be on siste during ground disturbance activities. However, with the implementation of Mitigation Measures CUL-1 through CUL-6, these potential impacts would be reduced to less-than-significant levels.

In summary, with the implementation of mitigation measures to be incorporated into the Project, it is expected that the project would not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history. With the implementation of BIO-1 through BIO-5, and CUL-1 through CUL-6 impacts would be less than significant. .

MITIGATION MEASURE(S)

. Implementation of BIO-21 though BIO-X and CUL-1 through CUL- X.

LEVEL OF SIGNIFICANCE

Impacts would be *less than significant with mitigation incorporated*.

Impact #3.4.21b - Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)?

This discussion considers the potential impacts of the Project combined with the incremental effects of other past, present, and probable future projects in the vicinity. It is noted that past projects in the area comprise solar PV generating facilities. Most other projects that have been proposed and approved in Kings County over the past several years have consisted of minor projects such as cell towers, or projects with temporary or infrequent operation , Kelly Slater's Surf Ranch), or projects that are too far from the project area to contribute to any cumulatively significant effect (e.g., relocation of Baker Commodities facility east of Hanford; biogas pipeline projects and Pittman poultry farm projects in eastern Kings County, and Jackson Ranch Specific Plan in southern Kings County), or projects for which development applications have been formally withdrawn or closed due to inactivity (e.g., Quay Valley new

community project). As such, there is no potential that they would contribute to a cumulatively significant impact associated with the Project.

Similar projects in the area will be analyzed to determine their project specific impacts and would be subject to similar mitigation measures to reduce impacts to less than significant levels. Those projects would be subject to the same development standards, and be required to comply with applicable local and State regulations, codes as well. In summary, the incremental effects of the cumulative projects would not combine to produce a cumulatively significant impact, and the project contribution would not be considerable..

MITIGATION MEASURE(S)

Implementation of AG-1 though AG-4, BIO-1 though BIO-5 and CUL-1 through CUL- 4. GEO-1 through GEO-3, HAZ-1 and HAZ-2, HYD-1, and NSE1-and NSE-2 6. Level of Significance

Impacts would be ***less-than-significant impact with mitigation incorporated***.

Impact #3.4.21c - Does the Project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?

In addition to the mitigation measures outlined related to biological resources (BIO-1 thought BIO-5) and cultural/tribal resources (CUL-1 through CUL-4), the ways in which people can be subject to substantial adverse effects from projects include: loss of agricultural lands, potential exposure to significant potential exposure to seismic and flooding hazards; potential exposure to contamination from hazardous materials; potential exposure to traffic hazards, and; potential exposure to excessive noise levels. The risks from these potential hazards would be avoided or reduced to less than significant levels through compliance with existing laws, regulations, or requirements. Additional risks associated with the potential related to expansive soils, the loss of soil due to erosion or the release of polluted runoff during construction would be mitigated to less than significant by the implmenting MM GEO-1 and GEO-2 requiring the preparation of a Geotehcnical Study and the approval of a SWPPP. MM GEO-3 requires contacting a professional paleontologist if fossil remains are found during construction. MM HAZ-1 requires the Project operator shall prepare and maintain a HMBP. HAZ-2 requires a FAA Obstruction Evaluation prior to issuance of a building permit to reduce potential impacts of the Project. Because the Project is within the FEMA 100-year flood hazard zone, MM HYD-1 reqiores the operator to complete a hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the site. The Project is also required to implement MM NSE-1 and NSE-2, which requires the placement of stationary equipment as far away from sensitive receptors, all equipment would be maintained and include mufflers and baffles and limit construction during daylight hours (7:00 a.m. to 6:00 p.m. Monday through Friday). A sign that is legible at a distance of 50 feet will also be posted at the construction site providing contact information if noise issues arise. With the implementation of these measures to address potential impacts, it is expected that the project would not have the potential to result in significant effects which would cause substantial adverse effects on human beings, either directly or indirectly.

MITIGATION MEASURE(S)

Implementation of AG-1 though AG-4, BIO-1 though BIO-5 and CUL-1 through CUL- 4. GEO-1 through GEO-3, HAZ-1 and HAZ-2, HYD-1, and NSE1-and NSE-2 .

LEVEL OF SIGNIFICANCE

Impacts would be ***less-than-significant impact with mitigation incorporated***.

SECTION 4 - LIST OF PREPARERS

Lead Agency – Kings County Community Development

Chuck Kinney– Director

Alex Hernandez– Deputy Director

Noelle Tomlinson– Planner II

Consultant – QK

Jaymie Brauer – Prinicpal Planner/Author

Christopher Mynk – Prinicpal Planner/QAQC

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APPENDIX A
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
MM AG-1: Prior to issuance of a building permit, the project proponent shall provide written evidence of completion of the following measures to the Kings County Community Development Agency to mitigate the loss of agricultural land at a ratio of 1:1 for net acreage before conversion for the life of the Project. a) Cancel the existing Williamson Act land conservation contracts for the project footprint; and b) Mitigate for the loss of Farmland of Statewide Importance at a ratio of 1:1 with restrictive covenants. The agricultural land preserved under the restrictive covenants shall be of equal or greater quality as defined by the California Department of Conservation's Farmland Mapping and Monitoring Program (i.e, if Farmland of Statewide Importance is converted to solar then the agricultural land preserved must not be in a classification indicating a lower quality than Farmland of Statewide Importance).		Lead Agency		
MM AG-2: Prior to the issuance of a building permit, the applicant shall submit, for review and approval by the Kings County Community Development Agency, a Soil Reclamation Plan (Plan) for the restoration of the site at the end of the Project's useful life. The Plan shall contain an analysis of pre-project general pre-construction conditions of the Project site, and the site shall be photographically documented by the applicant prior to the start of construction. The Plan shall contain specific measures to restore the soil to approximate	Prior to issuance of building permits	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
its pre-project condition within 18 months of the Project's decommissioning. The Plan shall include (1) removal of all above-ground and below-ground project fixtures, equipment, and non-agricultural driveways, (2) tilling to restore the subgrade material to a density and depth consistent with its pre-project condition, (3) revegetation using a Kings County-approved grasses and forbs seed mixture designed to maximize revegetation with noninvasive species shall be broadcast or drilled across the Project site, and (4) application of weed-free mulch spread, as needed, to stabilize the soil until germination occurs and young plants are established to facilitate moisture retention in the soil. Whether the Project area has been restored to pre-construction conditions shall be assessed by Kings County staff. Additional seedlings and applications of weed-free mulch shall be applied to areas of the Project.				
MM AG-3: Prior to the issuance of a building permit, the developer shall post a performance or cash bond, submit a Certificate of Deposit, submit a letter of credit, or provide such other financial assurances acceptable to the County, in an amount provided in an Engineer's Cost Estimate, approved by the CDA, to ensure completion of the activities under the Soil Reclamation Plan. An updated Engineer's Cost Estimate shall be submitted to the CDA every five years to determine if the financial assurance instrument is still adequate to cover the Soil Reclamation Plan. If after review, the financial assurances are determined to be inadequate, then the financial assurance shall be adjusted.	Prior to issuance of building permits and every five years after	Lead Agency		
MM AG-4: To ensure that solid waste generated during project construction, operation, and decommissioning is properly disposed of	Prior to issuance of	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
or recycled, prior to issuance of building permits, the applicant shall prepare a Solid Waste Management Plan acceptable to the County pursuant to Section 1112.B.2.g of the Development Code. The nonhazardous waste generated during construction and operation will be segregated on-site for recycling or disposal at a Class III landfill. Hazardous wastes generated during project construction, operation, and decommissioning will be either recycled or disposed of at a Class I disposal facility, as required.	building permits			
MM BIO-1: Within 14 days of the start of Project construction activities, a pre-construction survey should be conducted by a qualified biologist knowledgeable in the identification of these species. The pre-construction survey should include walking transects to identify the presence of burrowing owls and their burrows, American badgers and their dens, and desert kit foxes and their dens. The pre-activity survey shall be spaced at close enough intervals to provide 100 percent coverage of the Project site and a 250-foot buffer for American badger, and desert kit fox, and a 250-foot buffer for nesting burrowing owl. If no evidence of these special-status species is detected, no further action is required.	Prior to construction	Lead Agency		
MM BIO-2: If dens or burrows that could support any of these species are discovered during the pre-activity survey conducted under Measure BIO-5, the avoidance buffers outlined below should be established, and den or burrow monitoring will be conducted in accordance with the California Department of Fish and Game (CDFG) *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012) and USFWS *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS,	Prior to construction	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial

2011b). No work would occur within these buffers unless the biologist approves and monitors the activity.

Burrows and dens may be excavated by a qualified biologist once it is determined that the burrow or den is not occupied. To determine occupation, each den should be monitored for three consecutive days/nights using tracking medium and/or remote cameras fitted with a motion detector and/or infrared triggering system. In addition, prior to excavation of burrows or dens, one-way doors may be installed (only in non-breeding season), and the burrows or dens will be scoped with optic cameras to ensure no occupation of wildlife are present. All excavations would be accomplished by hand or backhoe under the direct supervision of a qualified biologist.

Burrowing Owl (active burrows only)

In addition, impacts to occupied burrowing owl burrows shall be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: (1) the birds have not begun egg laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial

If burrowing owl are found to occupy the Project site, and avoidance is not possible, burrow exclusion may be conducted by qualified biologists only during the non-breeding season, before breeding behavior is exhibited, and after the burrow is confirmed empty through non-invasive methods (surveillance). Replacement of occupied burrows shall consist of artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1). Ongoing surveillance of the Project site during construction activities shall occur at a rate sufficient to detect burrowing owl if they return.
 	
American Badger and Desert Kit Fox Natal/Pupping Season
 	
• American Badger
  o Breeding Season: Late Summer – Early Fall
  o Pregnancy (Delayed Implantation): December through February
  o Pups are Born: March through April
  o Pup Dispersal: June through August
• San Joaquin Kit Fox
  o Mate Pairing: October through November
  o Mating: December through January (possibly into February)
  o Pups are Born: February or March
  o Pup Dispersal: July
 	
American Badger and San Joaquin Kit Fox
 	
• Potential or Atypical den: 50 feet
• Known den: 100 feet				

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
• Natal or pupping den: 200 feet				
MM BIO-3: If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys should be conducted 14 days prior to the start of construction at the construction site plus a 250-foot buffer (avoidance buffer) for songbirds and a 500-foot buffer for raptors (other than Swainson's hawk). The surveys should be phased with the construction of the Project. If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress. If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 250 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. Full-time monitoring of an active nest may be needed when activities are occurring at the fringe of a buffer to determine whether activities are affecting nesting birds. Results of the monitoring may indicate a need to expand the size of avoidance buffer areas. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist should have the ability to stop construction if nesting adults show any sign of distress.	Prior to construction	Lead Agency		
MM BIO-4: The following measures shall be implemented to reduce potential impacts to Swainson's hawk: Nesting surveys for the	Prior to construction	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
Swainson's hawks shall be conducted in accordance with the protocol outlined in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's hawk Technical Advisory Committee, 2011). If potential Swainson's hawk nests or nesting substrates are located within 0.5 miles of the Project site, then those nests or substrates must be monitored for activity on a routine and repeating basis throughout the breeding season, or until Swainson's hawks or other raptor species are verified to be using them. The protocol recommends that the following visits be made to each nest or nesting site: one visit from January 1–March 20 to identify potential nest sites, three visits from March 20–April 5, three visits from April 5–April 20, and three visits during June 10–July 30. To meet the minimum level of protection for the species, surveys shall be completed for at least the two survey periods immediately prior to Project-related ground-disturbance activities. If Swainson's hawks are not found to nest within the survey area, then no further action is warranted. If Swainson's hawks are not found to be present, then no action is warranted. If Swainson's hawks are found to nest within the survey area, active Swainson's hawk nests shall be avoided by 0.5 miles during the nesting period unless this avoidance buffer is reduced through consultation with the CDFW and/or a qualified biologist with expertise in Swainson's hawk issues. If a construction area falls within this nesting area, construction must be delayed until the young have fledged (left the nest). The 0.5-mile radius no-construction zone may be reduced in size but in no case shall be reduced to less than 500 feet except where a qualified biologist concludes that a smaller buffer area is sufficiently protective. A qualified biologist must conduct construction monitoring on a daily basis, inspect the nest on a daily				

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
basis, and ensure that construction activities do not disrupt breeding behaviors.				
MM BIO-5: The following avoidance and minimization measures should be implemented during all phases of the Project to reduce the potential for impacts. These are modified from the *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011b), but they can be applied equally to protect all three species. a. Project-related vehicles should observe a daytime speed limit of 20 mph throughout the site in all Project areas, except on County roads and State and federal highways. b. All Project activities should occur during daylight hours, but if work must be conducted at night, then a night-time construction speed limit of 10 mph should be established. c. Off-road traffic outside of designated Project areas should be prohibited. d. To prevent inadvertent entrapment of kit foxes or other animals during construction of the project, all excavated, steep-walled holes or trenches more than two feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps spaced at a minimum distance of 100 feet and constructed of earthen-fill or wooden planks should be installed. e. Before holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the CDFW should be contacted before proceeding with the work.	During Construction	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
f. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape. g. All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes, American badgers, and burrowing owls before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the animal vacates the pipe of its own accord. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox, badger, or burrowing owl has escaped. h. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Project site. i. No pets, such as dogs or cats, should be permitted on the Project site unless permitted in accordance with the American Disabilities Act. j. Project-related use of rodenticides and herbicides should be restricted. k. A representative should be appointed by the Project proponent, who will be the contact source for any employee or contractor who might inadvertently kill or injure one of these species or who finds a dead, injured, or entrapped animal. The representative should be identified during the employee				

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
education program, and their name and telephone number should be provided to the CDFW. l. Upon completion of the Project, all areas subject to temporary ground disturbances (including storage and staging areas, temporary roads, pipeline corridors, etc.) should be recontoured and revegetated to promote restoration of the area to pre-project conditions following a revegetation plan approved by the County. An area subject to "temporary" disturbance means any area that is disturbed during the Project, but after Project completion, will not be subject to further disturbance and has the potential to be revegetated. m. Any Project personnel who are responsible for inadvertently killing or injuring one of these species should immediately report the incident to their representative. This representative should contact the CDFW immediately in the case of a dead, injured, or entrapped kit fox, American badger, or western burrowing owl. n. New sightings of American badger or western burrowing owl shall be reported to the CNDDB.				
MM CUL-1: a) Prior to the issuance of building permits, a Cultural Resources Alert must be noted on any plans that require ground disturbing excavation that there is a potential to expose buried cultural resources; and b) If historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If	a) Prior to issuance of building permits b) During construction	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. Implementation of the mitigation measure below would ensure that the proposed Project would not cause a substantial adverse change in the significance of a historical resource.				
MM CUL-2: The Project applicant shall retain the Santa Rosa Rancheria cultural staff to provide pre-construction Cultural Sensitivity Training to construction staff and any excavation contractor regarding the discovery of cultural resources and the potential for discovery during ground-disturbing activities, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. Evidence of compliance shall be submitted to the Kings County CDA prior to the ground-disturbing activity.	Prior to construction	Lead Agency		
MM CUL-3: Prior to any ground disturbance, the Project applicant shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground-disturbing activities during both construction and decommissioning of the Project.	Prior to the issuance of building permits	Lead Agency		
MM CUL-4: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and	During construction	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.				
MM GEO-1: Prior to the issuance of building permits, preparation of a Geotechnical and Soils Report by a qualified registered civil engineer, based on soil borings or excavations, would be prepared to determine the potential for soils expansion and to prepare recommendations for corrective actions to mitigate potential damage to project structures due to potential soils expansion is required.	Prior to issuance of building permits	Lead Agency		
MM GEO-2: Prior to construction, the District shall submit: (1) the approved Stormwater Pollution Prevention Plan (SWPPP) and (2) the Notice of Intent (NOI) to comply with the General National Pollutant Discharge Elimination System (NPDES) from the Central Valley Regional Water Quality Control Board. The requirements of the SWPPP and NPDES shall be incorporated into design specifications and construction contracts. Recommended best management practices for the construction phase may include the following: • Stockpiling and disposing of demolition debris, concrete, and soil properly. • Protecting existing storm drain inlets and stabilizing disturbed areas. • Implementing erosion controls. • Properly managing construction materials.	Prior to issuance of building permits	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
• Managing waste, aggressively controlling litter, and implementing sediment controls.				
MM GEO-3: During any ground-disturbance activities, if paleontological resources are encountered, all work within 25 feet of the find shall halt until a qualified paleontologist, as defined by the Society of Vertebrate Paleontology *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (2010), can evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the Natural History Museum of Los Angeles County or another appropriate facility regarding any discoveries of paleontological resources. If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations, and fossil recovery may be required to mitigate adverse impacts from Project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, they shall be avoided to ensure no adverse effects or such effects must be mitigated. Construction in that area shall not resume until the resource-appropriate measures are recommended, or the materials are determined to be less than significant. If the resource is significant and fossil recovery is the identified form of treatment, then the fossil shall be deposited in an accredited and permanent scientific institution.	During construction	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
Copies of all correspondence and reports shall be submitted to the Lead Agency.				
MM HAZ-1: During the life of the Project, including decommissioning, the Project operator shall prepare and maintain a Hazardous Materials Business Plan (HMBP), as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 by submitting all the required information to the California Environmental Reporting System (CERS) at http://cers.calepa.ca.gov/ for review and acceptance by the Kings County Environmental Health Services Department. The HMBP shall: a. Delineate hazardous material and hazardous waste storage areas. b. Describe proper handling, storage, transport, and disposal techniques including which routes will be used to transport hazardous materials. c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill. d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction and operation. e. Establish public and agency notification procedures for spills and other emergencies including fires. f. Describe federal, State, or local agency coordination, as applicable, and clean-up efforts that would occur in the event of an accidental release.	Ongoing during construction and operations Prior to the issuance of building permits	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
g. Include procedures to avoid or minimize dust from existing residual pesticides and herbicides that may be present on the site. The Project proponent shall ensure that all contractors working on the Project are familiar with the facility's HMBP as well as ensure that one copy is available at the Project site at all times. In addition, prior to the issuance of building permits, a copy of the accepted HMBP from CERS shall be submitted to Kings County for inclusion in the Project's permanent record.				
MM HAZ-2: FAA Obstruction Evaluation. Prior to issuance of a building permit, the developer shall provide evidence of a completed Obstruction Evaluation (Title 14, Code of Federal Regulations Part 77) by the Federal Aviation Administration.	Prior to issuance of building permits	Lead Agency		
MM HYD-1: Prior to the issuance of a building permit, the project proponent/operator shall complete a hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the project site. The study shall include, but is not limited to the following: a. A numerical stormwater model for the Project site that evaluates existing and proposed (with Project) drainage conditions during storm events ranging up to the 100-year event. b. The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the Project area that would result from Project implementation.	Prior to issuance of building permits	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
c. Engineering recommendations to be incorporated into the Project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the Project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite. d. A specification that the final design of the solar arrays shall include one foot of freeboard clearance above the calculated maximum flood depths for the solar arrays or the finished floor of any permanent structures. Solar panel sites located within a 100-year floodplain shall be graded to direct potential flood waters without increasing the water surface elevations more than one foot or as required by Kings County's Floodplain Management Ordinance. **e.** The hydrologic study and drainage plan shall be prepared in accordance with the Kings County Flood Damage Prevention Ordinance and Kings County Development Standards, and approved by the Kings County Community Development Agency prior to the issuance of building permits.				
MM NSE-1: The following shall be implemented by the Project proponent for the duration of Project construction: a. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site.	During construction	Lead agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
b. The construction contractor shall locate the pile driver such that the rear of the vibratory pile driver faces toward the noise-sensitive receptors when the machine is being utilized. c. The construction contractor shall locate equipment staging in areas that will create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all Project construction. d. The construction contractor shall ensure that all construction equipment is equipped with manufacturer-approved mufflers and baffles. e. Project construction shall occur during the daytime hours (7:00 a.m. to 6:00 p.m. Monday through Friday).				
MM NSE-2: Prior to the issuance of building permits, the following shall be implemented: a. A Noise Disturbance Coordinator shall be identified. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. This would include but not be limited to ensuring construction activities start no earlier than 7:00 am and end no later than 6:00 pm during the week, inspecting and maintaining equipment, and minimizing idling of trucks on site, etc. b. A sign that is legible at a distance of 50 feet shall also be posted at the construction site throughout construction, which	Prior to issuance of building permit	Lead Agency		

Mitigation Measure	Timeframe	Responsible Monitoring Agency	Date	Initial
includes the contact information for the Noise Disturbance Coordinator.				

APPENDIX B
SITE PLAN

LEGEND

(OE)	OVERHEAD ELECTRIC, EXISTING
OE	OVERHEAD ELECTRIC, PROPOSED
UE	UNDERGROUND ELECTRIC, PROPOSED
(E)	EXISTING
(N)	NEW

026-060-006

026-070-010

EXISTING PG&E SUBSTATION

026-070-018

UTILITY-OWNED POLE-MOUNTED PROTECTION DEVICE

UTILITY-OWNED POLE-MOUNTED METERS POINT OF COMMON COUPLING (POCC)

CUSTOMER-OWNED 15KV DISCONNECT SWITCH; UTILITY ACCESSIBLE, LOCKABLE, FUSED

CUSTOMER-OWNED RECLOSER

CUSTOMER-OWNED POLE WITH REVENUE METER

CUSTOMER-OWNED RISER POLE

026-070-017

PROPERTY LINE

026-070-021

POI @ (E) POLE FEEDER: JACOBS 1101

SITE ACCESS ROAD

69'

146'

GATE

10,000 GALLON SELF-FILLING WATER STORAGE TANK

FENCE TYP
7 foot chain-link fence with 3 strands of barbed wire

PV MODULES ON SINGLE AXIS TRACKERS (N/S) TYP

68'

(E) 30' ROAD EASEMENT PER DOCUMENT NO. 2256 DATED FEBRUARY 17, 1965

SMA SCS 3950 UP-XT-US CENTRAL INVERTERS FOR BESS

EQUIPMENT AREA WITH PV INVERTERS, SWITCHGEAR, TRANSFORMER 'XMFR #2'

(E) 12KV OVERHEAD UTILITY LINES

20' INTERNAL GRAVEL ACCESS ROAD TYP

XMFR #1 FOR BESS

(29) BATTERY MODULES WITH DC TO DC CONVERTERS

026-060-007

1027'

MIN 20' SETBACK FROM MODULES TO FENCE TYP

20' WIDE GRAVEL ACCESS ROAD TYP

EQUIPMENT AREA WITH PV INVERTERS, SWITCHGEAR, TRANSFORMER 'XMFR #3'

(E) PAVED ROAD

18TH AVENUE

MIN 20' SETBACK FROM MODULES TO FENCE TYP

026-070-009

FENCE TYP

141'

1245'

N

60' 0' 60'

SCALE: 1"= 60'

L:\PROJECTS\2023\220309.03\ACAD\DWGS\220309.03 JACOBS CIRCUIT SITE.DWG 4/12/2023 3:03 PM

PROJECT NO.:	220309.03
DRAWN BY:	KK
QA/QC BY:	PLH
SCALE:	AS SHOWN
SHEET NO.:	2 OF 2

CONCEPTUAL SITE PLAN

Kings CSG 1, LLC

Kings CSG 1 Solar

SECTION 2, T.20S, R.20E., M.D.M.

QK
WWW.QKINC.COM
1-800-606-7599
BAKERSFIELD, CLOVIS, HANFORD, MERCED, PORTERVILLE, VISALIA

APPENDIX C
FINDINGS FOR WILLIAMSON ACT CANCELLATION

MEMO

Date: December 1, 2022 **Project No.:** 220011.02.11

To: Kings County Planning and Natural Resources Department

From: Jaymie L. Brauer, Principal Planner, QK

Subject: Conditional Use Permit. KINGS CSG 1 LLC –Reponses to substantiate the Findings for Williamson Act Cancellation for the Public Benefit

Project Background: The applicant, Kings CSG 1, LLC is proposing to construct and operate a 5 MW photovoltaic (PV) solar facility (Kings CSG 1 Solar) to generate and distribute renewable electrical energy (Project).

The location of the solar project is in an agriculture area of unincorporated area of Kings County and includes approximately 40-acre portion of a 119-acre parcel (APN 0042-110-380). The Project is consistent with the county General Plan and requires the approval of a CUP to operate a solar facility within the AG-20 zone district. The Project site is subject to a Williamson Act Land Use contract (WALUC).

The Project Site has previously been used for agricultural purposes and is zoned as General Agriculture (AG-20). The site is designated as Farmland of Statewide Importance according to the most recent mapping prepared by California Department of Conservation's Farmland Mapping and Monitoring Program (California Department of Conservation, 2023). Development of the proposed Project would result in the conversion of the Project to a utility-scale solar generation land use.

The proposed Project will participate in PG&Es Disadvantaged Communities (DAC) Program and would ensure that subscribing residential customers have access to 100% of solar power generated from the participating projects in their local community at a subsidized rate. With consideration of the Project's development of a solar facility and participation in PG&Es DAC Program, the cancellation of the WALUC on 28.22 acres will be in the public interest.

Finding 1: That other public concerns substantially outweigh the objectives of Chapter 7.

The Project proposes the development of a solar generation facility and associated infrastructure that will participate in PG&Es DAC Program, which offers subsidized rates to disadvantaged communities. PG&E implemented their DAC Program as a result of Assembly Bill 327 (AB 327) to meet renewable energy resource generation goals and serve the needs of electric customers who are unable to pay their electric bills and satisfy eligibility criteria for assistance. In addition, Senate Bill (SB) 100 aims to increase California's Renewable Portfolio Standard and established the State's intention to have zero-carbon and eligible renewable energy resources supply 100 percent of the State's retail electricity sales by the year 2045. The Project's primary objectives are to meet the objectives outlined in AB 327 and SB 100. Additional public benefits related to energy supply, energy security, global climate change, and employment is also anticipated as a result of the Project. California has passed AB 32 and SB 32, the California Global Warming Solutions Act (Assembly Bill 32) and greenhouse gas emissions reduction objectives by developing and constructing new California RPS-qualified, solar power generation facilities. The Project will result in the public benefit of further achieving or exceeding the State' goals for renewable energy development and GHG emissions reductions.

The Project has been sited to take advantage of its proximity to an existing substation and its condition as an undeveloped parcel. A point of interconnection (POI) is available and is located adjacent to the Project site. This results in no development of a generation tie line that could impact adjacent properties, some of which are in active agricultural production.

Finding 2: That there is no proximate non-Contracted land which is both available and suitable for the use to which it is proposed the Contracted land be put, or, that development of the Contracted land would provide more contiguous patterns of urban development than development of proximate non-contracted land.

The site frontage is on 18th Ave. To the west, there are a number of solar facilities making this a logical extension of that pattern of development. To the north there is a church and to the west, across the street, is a commercial chicken ranch. Other parcels to the north, the south and the east are in agriculture, making them less suitable for solar development.

The POI is located on the northwest boundary of the Project site and would connect to the adjacent PG&E substation. The POI connection to the grid would be the most cost effective and negate the need for development of a generation tie line that might impact biological resources on the surrounding undeveloped land and/or require conversion of active agricultural lands. The close proximity of the POI and PG&E substation makes the proposed Project parcel ideal for the development of a solar facility.

According to available records, there are seven parcels within a 1-mile radius of the Project site that are not under a Williamson Act contract (Figure 3). All the adjacent parcels are themselves subject to a land use contract and therefore are not more suitable for solar development. In addition, based on available property owner data, the majority of these parcels are also owned by the Santa Rosa Rancheria Indian Community or the US Department of the Interior- Bureau of Indian Affairs. Thus, these parcels are not available for sale to a private solar developer.

Although there are parcels in a one-mile radius that could accommodate the Project, there are also environmental factors that could negatively impact the Project's viability should it be sited on the identified parcels. These factors include the location of the POI and development of a generation tie line, and environmental impacts including the presence of wetlands, wildlife species habitat, or agricultural use. Additionally, the Project proponent has no site control over any other property in the area to develop the solar facility. If a different site were to be chosen, it would require long-term negotiations between the property owners, energy providers, and approvals from the County.

Since no other parcels have the specific attributes or characteristics to meet the needs of the Project, it is unlikely that adjacent lands would be viable alternatives to the subject property. Given the particular characteristics and attributes of subject property, there are no viable, proximate non-Contracted lands that are both available and suitable for the use to which it is proposed by the Project. Based on this analysis, the facts as outlined herein substantiate that the County can make the necessary findings to approve the cancellation of the WALUC .

Additionally, there is substantial evidence that the Project site is subject to reduced surface water availability limitations due to groundwater quality and availability, and impaired soil conditions.

The Project site is dependent upon imported Central Valley Project (CVP) deliveries through WWD (WWD 2013). For a number of years, the WWD has been subject to curtailment of delivered water, ongoing drought conditions, environmental regulations.

According to the CA Department of Water Resources (DWR) and Central Valley Regional Water Quality Control Board (CVRWQCB), groundwater in the Project area has high concentrations of sodium, chloride, boron, carbonates and bicarbonates, which limit the volumes that can be applied given the limited tolerance of crops to these elements (CA DWR 2003, CVRWQCB 2004). Therefore, growing crops utilizing solely groundwater is not feasible. Soil Conditions: According to the Natural Resources Conservation Service (NRCS) Soil Survey of Kings County, the native soils of Project area have naturally high salt levels and have been exacerbated by poor natural drainage (NRCS 1986). The short supply of high-quality imported water limits the amount of surface water that can be applied to pre-irrigate the soil to leach out some salts. Long term soil salinity conditions are expected to increase due to lack of a subsurface drainage system and a sustainable leachate disposal outlet. Due to the limitation of reliable water availability and impairment of soil quality due to high salinity, the Project site is not suitable for sustaining long-term agricultural crop production, and a reasonably foreseeable agricultural use.

The proposed solar facility and the cancellation of the Agricultural Preserve Contract will not induce owners of adjacent lands to remove their contracted lands from agricultural use due to newly available roadways. Further, the proposed Project would not provide nor require urban services and therefore would not encourage the growth of urban development on adjacent contracted lands. In summary, the proposed Project would be consistent with the Williamson Act principles of compatibility.

Figure 1
Project Area

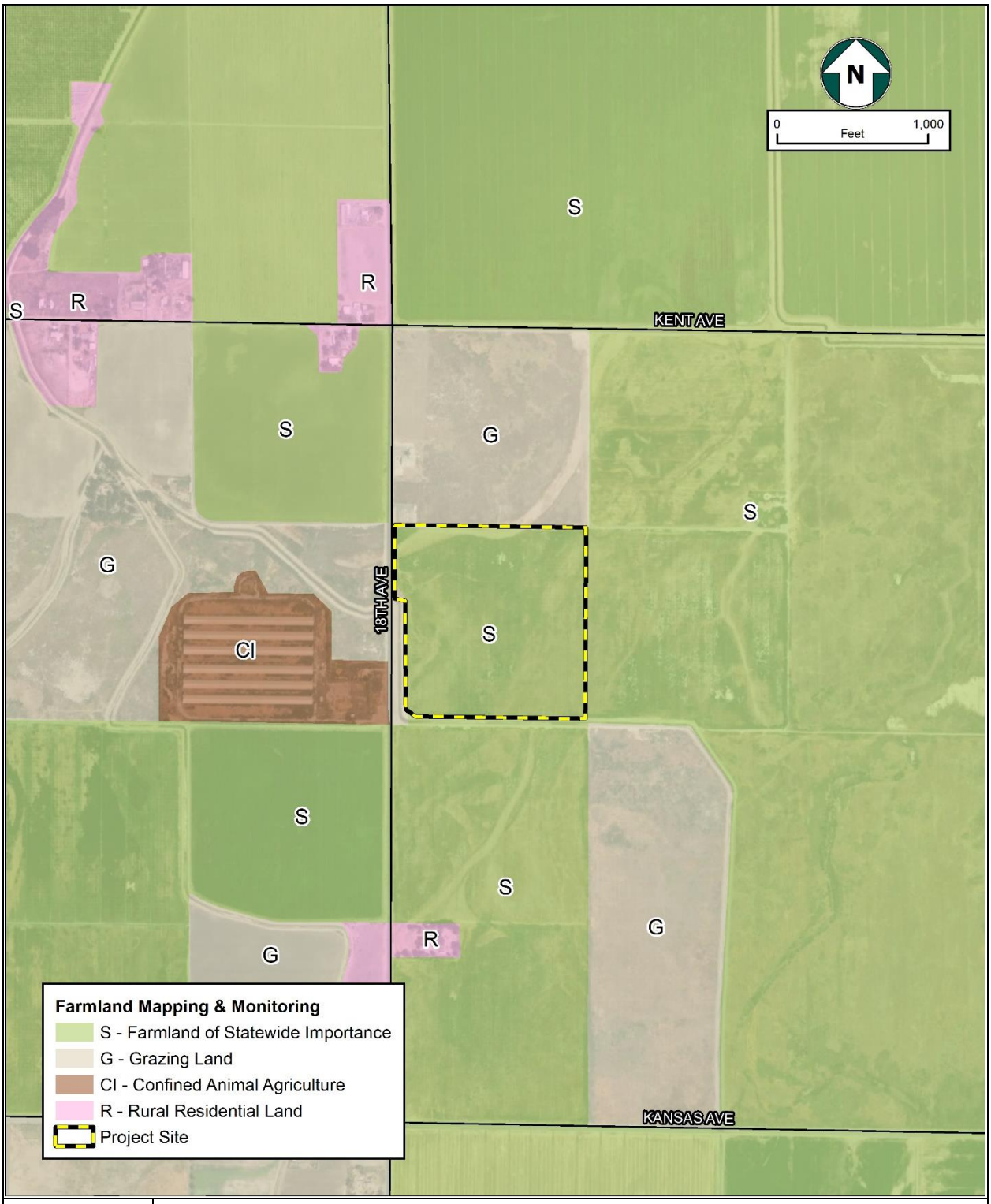


Figure 2
Farmland Mapping and Monitoring Program

Figure 3
Williamson Act Contracted Parcels within a One-Mile Radius

APPENDIX D
AIR QUALITY MEMO

TECHNICAL MEMORANDUM

Date: June 2, 2023

Project: Kings CSG 1 Solar Project by Kings CSG Solar LLC (QK Project #220309.03) Kings County, CA

To: Jaymie Brauer, Principal Planner

From: Christopher Mynk, AICP

Subject: **Air Quality and Greenhouse Gas Impact Analysis**

Background

This technical memorandum presents an analysis of the air quality and greenhouse gas (GHG) impact for the proposed Kings CSG 1 Solar Project (project), located at APN 026-070-009 in the County of Kings. The project proposes the construction of a 5 mw (AC) solar facility with battery storage on a 40 acre portion of a 119-acre parcel.

The project is located in the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the site is currently undeveloped. To support the CEQA analysis for the proposed project, this report analyzes the proposed project's construction and operational impacts to air quality (emission of criterial pollutants) emissions using the California Emissions Estimator Model (CalEEMod) land use emission model. The SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) (March 19, 2015) was used for guidance and thresholds for this analysis.

Project Location

The project is located approximately 2.5 miles northeast of the town of Stratford, on the east side of 18th Avenue in unincorporated Kings County. The Project site is within Section 2, T.20S, R.20E, MDB&M. The site has been historically used for crop cultivation and is disturbed.

Project Description

Kings CSG LLC is proposing to develop an approximately 5-MWac photovoltaic solar energy generation facility with a battery energy storage system and associated power line (the Project) on approximately 30 acres of a 119-acre parcel. The project includes a point of connection to the power grid, at the Jacobs Substation, located immediately north of the project parcel, which would be connected with a gen-tie of about 150 feet in length. The project will generate renewable energy utilizing. photovoltaic panels, which will be interconnected to the adjacent Pacific Gas & Electric distribution system. The project will require approval of a Conditional Use Permit and the cancellation of 40 acres of a Williamson Act Land Use contract.

Summary of Air Quality and GHG Impact

The project's maximum daily emissions (regional and local) for construction and operation of the project would not exceed SJVAPCD's regional thresholds of significance. Projects that do not exceed the regional thresholds are assumed to not have a significant impact on a project level and cumulative level. Therefore, the proposed project would have less than significant air quality impacts. In addition, the proposed project results in a net reduction in GHG emissions and supports the implementation of statewide policies to reduce emissions causing climate change.

Regional Emissions

The SJVAPCD has adopted maximum emission thresholds (tons per year) for the criteria pollutants during construction and operation of a project which can be seen in Table 1. While incremental regional air quality impacts of an individual project are generally very small and difficult to measure, SJVAPCD's regional maximum emission thresholds set standards to reduce the burden of SJVAPCD to attain and maintain ambient air quality standards. The construction of the project would be done in three phases:

1. Mobilization: 10 Days
2. Site Improvements & Grading: 20 Days
3. Panel Installation: 45 Days

The facility will be unmanned during operations, with only occasional site visits for security, maintenance, and repairs. A maintenance crew would access the site about once a month and 5-10 panel washers would be utilized once a quarter. The project conservatively analyzed 1 trip a day to account for the irregular trips.

Table 2: Regional Construction Emissions Estimates and Table 3: Regional Operational Emissions Estimates show the project impacts generated from CalEEMod. The CalEEMod print out sheets can be found attached. As can be seen in Table 2 and Table 3, the project would have less than significant regional air quality impacts.

Table 1. SJVAPCD Regional Emissions Significance Thresholds

Air Pollutant	Maximum Emissions (tons/year)	
	Construction	Operation
ROGs	10	10
NOx	10	10
CO	100	100
SOx	27	27
PM-10	15	15
PM-2.5	15	15

Table 2. Regional Construction Emission Estimates

Construction Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO_x	CO	SO_x	PM-10	PM-2.5
2021	0.16	1.43	1.21	0.00	0.37	0.18
SJVAPCD Significance Thresholds	10	10	100	27	15	15
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Table 3. Regional Operational Emission Estimates

Operational Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO_x	CO	SO_x	PM-10	PM-2.5
Area	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.01	0.00	0.00	0.00
Total Project Operational Emissions	0.00	0.00	0.01	0.00	0.00	0.00
SJVAPCD Significance Thresholds	10	10	100	27	15	15
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Potential Impacts to Sensitive Receptors

A sensitive receptor is defined as an individual who is most susceptible to negative health affects when exposed to air pollutants including children, the elderly, and adults with chronic health issues. Such receptors include residences, schools, elderly care centers, and hospitals. The closest potentially sensitive receptor is a single-family residential home that is about 280 feet away. The project would not exceed any applicable criteria pollutant thresholds during construction and on-

going operational activities. Therefore, the potential sensitive receptors would not experience a significant air quality impact.

Odors

In the GAMAQI, Table 6: Screening Levels for Potential Odor Sources lists following land uses that are generally associated with odor complaints:

- Wastewater Treatment Facilities
- Sanitary Landfill
- Transfer Station
- Composting Facility
- Petroleum Refinery
- Asphalt Batch Plant
- Chemical Manufacturing
- Fiberglass Manufacturing
- Painting/Coating Operations
- Food Processing Facility
- Feed Lot/Dairy
- Rendering Plant

The project does not fit under any of those land uses; therefore, the distance thresholds do not apply. Potential odor sources could occur during construction with the usage of construction equipment and the application of asphalt and architectural coating. Standard construction equipment would reduce the odor from the exhaust and the application of asphalt and architectural coating would be temporary and intermittent. The operation of the project would consist of maintenance work and panel washing that do not contribute any substantive odors. Finally, the project would be required to comply with the SJVAPCD Rule 4102 to prevent occurrences of public nuisances. Therefore, with compliance of Rule 4102 and temporary nature of odor causing construction activities, the project would have a less than significant odor impact.

Greenhouse Gases

In the GAMAQI Section 8.9: Thresholds of Significance – Greenhouse Gas Emissions, State the August 2008 Climate Change Action Plan (CCAP) and the December 17, 2009, The Final Staff Report – Climate Change Action Plan: Addressing GHG Emissions Impacts Under CEQA are the guiding documents to analyze Greenhouse Gas Emissions. The CCAP directed the Air Pollution Control Officer to develop guidance documents, which lead to the 2009 Final Staff Report. The Final Staff Report sets the GHG threshold at 7,000 $MTCO_{2e}$/year. To analyze the project's impact, the construction GHG emissions are amortized over 30 years and added to the project's operational GHG emissions.

The project's construction GHG emissions are shown in Table 4: Project Construction GHG Emissions, and the overall construction and operational emissions are shown in Table 5: Project GHG Emissions. These emissions were calculated using the CalEEMod Model. The proposed project is

proposed to produce 5 MW of electricity, which amounts to approximately 13,688 megawatt hours (MWh) per year. Megawatt hours are calculated by multiplying the MW produced by assumed hours of daylight (7.5 hours) and number of days in a year (365).

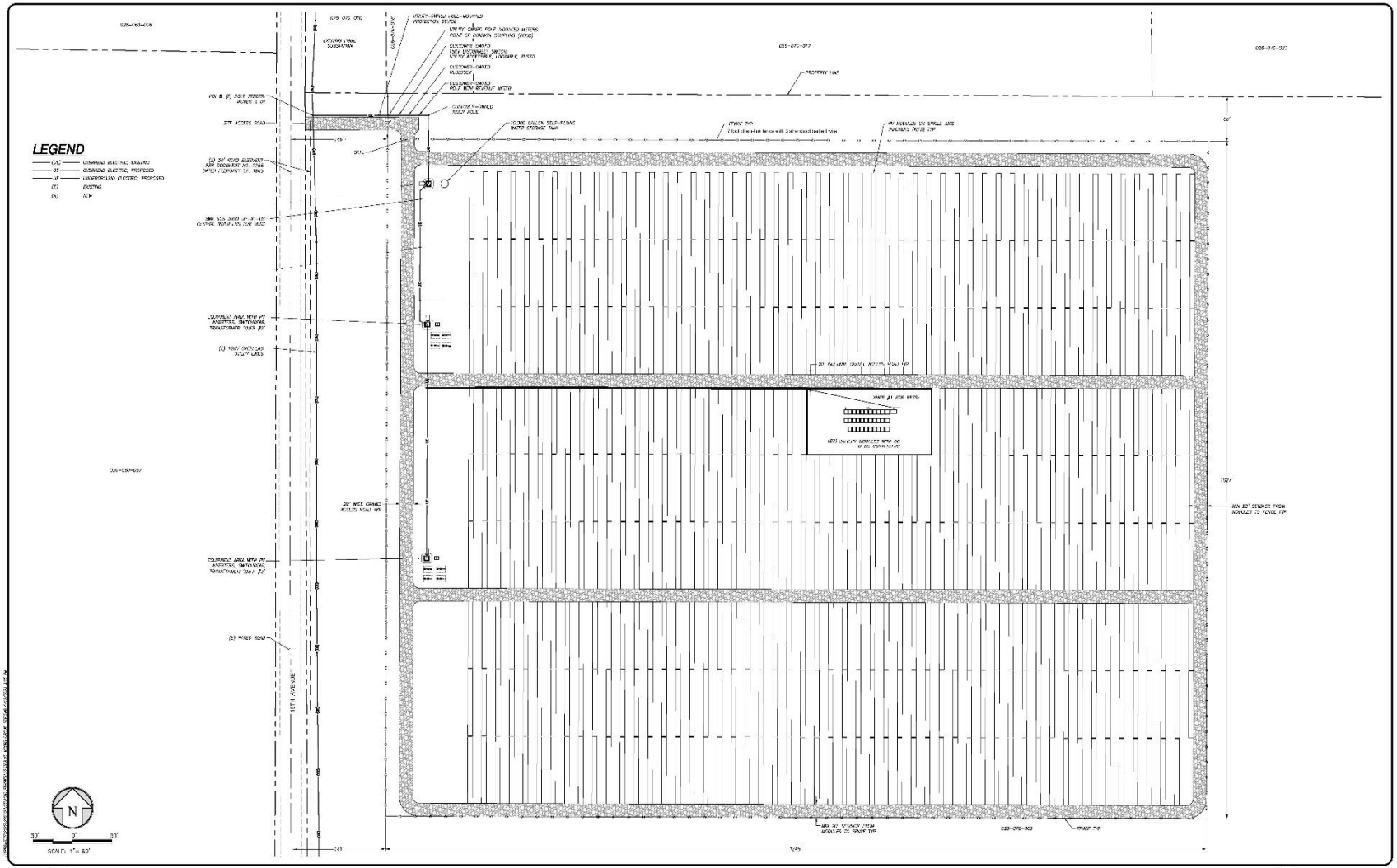
Project net GHG emissions are based on the energy used during operations and construction emissions. Pacific Gas & Electric (PG&E) has a CO_2 intensity factor of 641.35 pounds per MWh for projects served by the utility. Therefore, the project would displace about 3,369 $MTCO_{2e}$ of GHG. As shown in Table 5, the project GHG emissions are -3,350 MTCO2e per year, below the 7,000 MTCO2e per year. Therefore, the project would have no negative impacts on GHG emissions.

Table 4. Project Construction GHG Emissions

Activity	Annual GHG Emissions ($MTCO_{2e}$)
2023	329
Total Emissions Amortized Over 30 Years	11

Table 5. Project Net GHG Emissions

Activity	Annual GHG Emissions ($MTCO_{2e}$)
Project Operational Emissions	
Area	0
Energy	0
Mobile	8
Waste	0
Water	0
Total Project Gross Operation Emissions	8
Project Construction Emissions	11
Total Emissions	19
CO_{2e} Emissions Displaced	-3,369
Net Emissions	-3,350
Significance Threshold	7,000
Threshold Exceeded?	**No**



CONCEPTUAL SITE PLAN
Kings CSG 1, LLC
Kings CSG 1 Solar
SECTION 2, T.20S, R.20E, M.D.M.

CalEEMod Modeling

Jacobs Solar

Kings County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	23.00	User Defined Unit	23.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	37
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot Acreage from the Project Site Plan fenced in area.

Construction Phase - Based of solar projects of similar size in the San Joaquin Valley Air Basin.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Based of an 8hr work day.

Trips and VMT - Based of the Project's Trip Generation Analysis (EPD Solutions, 2021)

Vehicle Trips - Since the project trips are irregular as seen in the project Trip Generation Memo (EPD Solutions, 2021), 1 trip a day is analyzed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	370.00	45.00
tblConstructionPhase	NumDays	35.00	20.00
tblLandUse	LotAcreage	0.00	23.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripLength	6.60	40.00
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	32.00
tblTripsAndVMT	WorkerTripLength	16.80	40.00
tblTripsAndVMT	WorkerTripLength	16.80	40.00
tblTripsAndVMT	WorkerTripLength	16.80	40.00
tblTripsAndVMT	WorkerTripNumber	18.00	30.00
tblTripsAndVMT	WorkerTripNumber	20.00	70.00
tblTripsAndVMT	WorkerTripNumber	0.00	120.00
tblVehicleTrips	CW_TL	14.70	40.00
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.04
tblVehicleTrips	SU_TR	0.00	0.04
tblVehicleTrips	WD_TR	0.00	0.04

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1614	1.4321	1.2102	3.6200e-003	0.3182	0.0554	0.3736	0.1239	0.0515	0.1754	0.0000	327.7417	327.7417	0.0430	0.0000	328.8157
Maximum	**0.1614**	**1.4321**	**1.2102**	**3.6200e-003**	**0.3182**	**0.0554**	**0.3736**	**0.1239**	**0.0515**	**0.1754**	**0.0000**	**327.7417**	**327.7417**	**0.0430**	**0.0000**	**328.8157**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1614	1.4321	1.2102	3.6200e-003	0.3182	0.0554	0.3736	0.1239	0.0515	0.1754	0.0000	327.7415	327.7415	0.0430	0.0000	328.8156
Maximum	**0.1614**	**1.4321**	**1.2102**	**3.6200e-003**	**0.3182**	**0.0554**	**0.3736**	**0.1239**	**0.0515**	**0.1754**	**0.0000**	**327.7415**	**327.7415**	**0.0430**	**0.0000**	**328.8156**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-24-2021	5-23-2021	1.0568	1.0568
2	5-24-2021	8-23-2021	0.5264	0.5264
		Highest	1.0568	1.0568

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	8.7000e-004	9.5800e-003	0.0136	9.0000e-005	5.6700e-003	5.0000e-005	5.7200e-003	1.5300e-003	5.0000e-005	1.5700e-003	0.0000	7.9185	7.9185	2.5000e-004	0.0000	7.9248
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9000e-004**	**9.5800e-003**	**0.0138**	**9.0000e-005**	**5.6700e-003**	**5.0000e-005**	**5.7200e-003**	**1.5300e-003**	**5.0000e-005**	**1.5700e-003**	**0.0000**	**7.9189**	**7.9189**	**2.5000e-004**	**0.0000**	**7.9252**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	8.7000e-004	9.5800e-003	0.0136	9.0000e-005	5.6700e-003	5.0000e-005	5.7200e-003	1.5300e-003	5.0000e-005	1.5700e-003	0.0000	7.9185	7.9185	2.5000e-004	0.0000	7.9248
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9000e-004**	**9.5800e-003**	**0.0138**	**9.0000e-005**	**5.6700e-003**	**5.0000e-005**	**5.7200e-003**	**1.5300e-003**	**5.0000e-005**	**1.5700e-003**	**0.0000**	**7.9189**	**7.9189**	**2.5000e-004**	**0.0000**	**7.9252**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mobilization	Site Preparation	3/24/2021	4/6/2021	5	10	
2	Site Improvements & Grading	Grading	4/7/2021	5/4/2021	5	20	
3	Panel Installation & Connection	Building Construction	5/5/2021	7/6/2021	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mobilization	Rubber Tired Dozers	3	8.00	247	0.40
Mobilization	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Improvements & Grading	Excavators	2	8.00	158	0.38
Site Improvements & Grading	Graders	1	8.00	187	0.41
Site Improvements & Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Improvements & Grading	Scrapers	2	8.00	367	0.48
Site Improvements & Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Panel Installation & Connection	Cranes	1	8.00	231	0.29
Panel Installation & Connection	Forklifts	3	8.00	89	0.20
Panel Installation & Connection	Generator Sets	1	8.00	84	0.74
Panel Installation & Connection	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Panel Installation & Connection	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mobilization	7	30.00	20.00	0.00	40.00	40.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Improvements & Grading	8	70.00	16.00	0.00	40.00	40.00	20.00	LD_Mix	HDT_Mix	HHDT
Panel Installation & Connection	9	120.00	32.00	0.00	40.00	40.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Mobilization - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Mobilization - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2100e-003	0.0313	6.4700e-003	1.2000e-004	3.6400e-003	1.7000e-004	3.8000e-003	1.0500e-003	1.6000e-004	1.2100e-003	0.0000	11.8037	11.8037	3.5000e-004	0.0000	11.8125
Worker	1.8000e-003	1.5500e-003	0.0141	4.0000e-005	4.4600e-003	3.0000e-005	4.4900e-003	1.1800e-003	2.0000e-005	1.2100e-003	0.0000	3.5918	3.5918	1.1000e-004	0.0000	3.5946
Total	**3.0100e-003**	**0.0329**	**0.0206**	**1.6000e-004**	**8.1000e-003**	**2.0000e-004**	**8.2900e-003**	**2.2300e-003**	**1.8000e-004**	**2.4200e-003**	**0.0000**	**15.3955**	**15.3955**	**4.6000e-004**	**0.0000**	**15.4071**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.2 Mobilization - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2100e-003	0.0313	6.4700e-003	1.2000e-004	3.6400e-003	1.7000e-004	3.8000e-003	1.0500e-003	1.6000e-004	1.2100e-003	0.0000	11.8037	11.8037	3.5000e-004	0.0000	11.8125
Worker	1.8000e-003	1.5500e-003	0.0141	4.0000e-005	4.4600e-003	3.0000e-005	4.4900e-003	1.1800e-003	2.0000e-005	1.2100e-003	0.0000	3.5918	3.5918	1.1000e-004	0.0000	3.5946
Total	**3.0100e-003**	**0.0329**	**0.0206**	**1.6000e-004**	**8.1000e-003**	**2.0000e-004**	**8.2900e-003**	**2.2300e-003**	**1.8000e-004**	**2.4200e-003**	**0.0000**	**15.3955**	**15.3955**	**4.6000e-004**	**0.0000**	**15.4071**

3.3 Site Improvements & Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0360	0.0000	0.0360	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0419	0.4640	0.3088	6.2000e-004		0.0199	0.0199		0.0183	0.0183	0.0000	54.4950	54.4950	0.0176	0.0000	54.9356
Total	**0.0419**	**0.4640**	**0.3088**	**6.2000e-004**	**0.0867**	**0.0199**	**0.1066**	**0.0360**	**0.0183**	**0.0542**	**0.0000**	**54.4950**	**54.4950**	**0.0176**	**0.0000**	**54.9356**

3.3 Site Improvements & Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9400e-003	0.0501	0.0104	2.0000e-004	5.8200e-003	2.7000e-004	6.0800e-003	1.6800e-003	2.5000e-004	1.9300e-003	0.0000	18.8859	18.8859	5.6000e-004	0.0000	18.9000
Worker	8.4200e-003	7.2300e-003	0.0660	1.9000e-004	0.0208	1.2000e-004	0.0209	5.5300e-003	1.2000e-004	5.6400e-003	0.0000	16.7617	16.7617	5.3000e-004	0.0000	16.7750
Total	**0.0104**	**0.0574**	**0.0763**	**3.9000e-004**	**0.0266**	**3.9000e-004**	**0.0270**	**7.2100e-003**	**3.7000e-004**	**7.5700e-003**	**0.0000**	**35.6476**	**35.6476**	**1.0900e-003**	**0.0000**	**35.6750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0360	0.0000	0.0360	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0419	0.4640	0.3088	6.2000e-004		0.0199	0.0199		0.0183	0.0183	0.0000	54.4949	54.4949	0.0176	0.0000	54.9355
Total	**0.0419**	**0.4640**	**0.3088**	**6.2000e-004**	**0.0867**	**0.0199**	**0.1066**	**0.0360**	**0.0183**	**0.0542**	**0.0000**	**54.4949**	**54.4949**	**0.0176**	**0.0000**	**54.9355**

3.3 Site Improvements & Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9400e-003	0.0501	0.0104	2.0000e-004	5.8200e-003	2.7000e-004	6.0800e-003	1.6800e-003	2.5000e-004	1.9300e-003	0.0000	18.8859	18.8859	5.6000e-004	0.0000	18.9000
Worker	8.4200e-003	7.2300e-003	0.0660	1.9000e-004	0.0208	1.2000e-004	0.0209	5.5300e-003	1.2000e-004	5.6400e-003	0.0000	16.7617	16.7617	5.3000e-004	0.0000	16.7750
Total	**0.0104**	**0.0574**	**0.0763**	**3.9000e-004**	**0.0266**	**3.9000e-004**	**0.0270**	**7.2100e-003**	**3.7000e-004**	**7.5700e-003**	**0.0000**	**35.6476**	**35.6476**	**1.0900e-003**	**0.0000**	**35.6750**

3.4 Panel Installation & Connection - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0455	0.4219	0.3976	6.5000e-004		0.0231	0.0231		0.0217	0.0217	0.0000	55.8472	55.8472	0.0138	0.0000	56.1917
Total	**0.0455**	**0.4219**	**0.3976**	**6.5000e-004**		**0.0231**	**0.0231**		**0.0217**	**0.0217**	**0.0000**	**55.8472**	**55.8472**	**0.0138**	**0.0000**	**56.1917**

3.4 Panel Installation & Connection - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.7300e-003	0.2257	0.0466	9.0000e-004	0.0262	1.1900e-003	0.0274	7.5500e-003	1.1400e-003	8.6900e-003	0.0000	84.9865	84.9865	2.5300e-003	0.0000	85.0498
Worker	0.0325	0.0279	0.2545	7.2000e-004	0.0803	4.8000e-004	0.0808	0.0213	4.4000e-004	0.0218	0.0000	64.6522	64.6522	2.0600e-003	0.0000	64.7036
Total	**0.0412**	**0.2535**	**0.3011**	**1.6200e-003**	**0.1065**	**1.6700e-003**	**0.1081**	**0.0289**	**1.5800e-003**	**0.0305**	**0.0000**	**149.6386**	**149.6386**	**4.5900e-003**	**0.0000**	**149.7533**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0455	0.4219	0.3976	6.5000e-004		0.0231	0.0231		0.0217	0.0217	0.0000	55.8471	55.8471	0.0138	0.0000	56.1916
Total	**0.0455**	**0.4219**	**0.3976**	**6.5000e-004**		**0.0231**	**0.0231**		**0.0217**	**0.0217**	**0.0000**	**55.8471**	**55.8471**	**0.0138**	**0.0000**	**56.1916**

3.4 Panel Installation & Connection - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.7300e-003	0.2257	0.0466	9.0000e-004	0.0262	1.1900e-003	0.0274	7.5500e-003	1.1400e-003	8.6900e-003	0.0000	84.9865	84.9865	2.5300e-003	0.0000	85.0498
Worker	0.0325	0.0279	0.2545	7.2000e-004	0.0803	4.8000e-004	0.0808	0.0213	4.4000e-004	0.0218	0.0000	64.6522	64.6522	2.0600e-003	0.0000	64.7036
Total	**0.0412**	**0.2535**	**0.3011**	**1.6200e-003**	**0.1065**	**1.6700e-003**	**0.1081**	**0.0289**	**1.5800e-003**	**0.0305**	**0.0000**	**149.6386**	**149.6386**	**4.5900e-003**	**0.0000**	**149.7533**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.7000e-004	9.5800e-003	0.0136	9.0000e-005	5.6700e-003	5.0000e-005	5.7200e-003	1.5300e-003	5.0000e-005	1.5700e-003	0.0000	7.9185	7.9185	2.5000e-004	0.0000	7.9248
Unmitigated	8.7000e-004	9.5800e-003	0.0136	9.0000e-005	5.6700e-003	5.0000e-005	5.7200e-003	1.5300e-003	5.0000e-005	1.5700e-003	0.0000	7.9185	7.9185	2.5000e-004	0.0000	7.9248

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	1.01	1.01	1.01	14,735	14,735
Total	1.01	1.01	1.01	14,735	14,735

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	40.00	6.60	6.60	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.503527	0.027411	0.149893	0.110100	0.017112	0.004226	0.011648	0.165560	0.001710	0.001695	0.005548	0.000922	0.000648

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Unmitigated	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Total	**2.0000e-005**	**0.0000**	**2.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.0000**	**4.4000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Total	**2.0000e-005**	**0.0000**	**2.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.0000**	**4.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX E
BIOLOGICAL ASSESSMENT

MEMO

Date: February 23, 2023 **Project No.:** 220309.03

To: Abby Reed

From: Eric Madueno, William Ryan, and Dave Dayton

Subject: Biological Assessment of the Proposed Kings CSG 1 Solar Project.

The Kings CSG 1 Solar Project (Project), a Battery Energy Storage System (BESS) and associated infrastructure on an approximately 40 acre portion of a 119-acre parcel (APN 026-070-009) located two miles east of State Route 41 (SR 41), 5 miles south of SR 198, approximately 4 miles south of Lemoore, Kings County, California.

A review of relevant database and literature sources, including the California Natural Diversity Database (CNDDB 2023), maintained by the California Department of Fish and Wildlife (CDFW), the California Native Plant Society's Rare Plant Program Inventory (CNPS 2023), the Information for Planning and Consultation (iPaC; USFWS 2023a), maintained by U.S. Fish and Wildlife Service (USFWS), the National Hydrography Dataset (USGS 2023) and the National Wetlands Inventory (NWI; USFWS 2023b) was conducted to determine the potential for special status biological resources and waters or wetlands that may occur on the Project site.

The database searches indicate that several State and/or federally listed plant and wildlife species are known to occur on or in the vicinity of the site. QK Environmental Scientists Eric Madueno and William Ryan conducted a reconnaissance survey of the Project site on February 23, 2023, to determine the presence or absence of these special-status species and other biological resources on or near the Project site.

The reconnaissance survey consisted of a windshield and pedestrian survey of meandering transects throughout the entire parcel, which included the Project site to document site conditions, habitat present, and biological resources present on site. The survey included the a 50-foot buffer, known as the Biological Survey Area (BSA), and presented in Figure 1. Current land use, plant and wildlife including sign (burrows, tracks, scat, etc.) were documented to determine the presence or absence of sensitive biological resources within the BSA. Locational data were recorded using ESRI ArcGIS Collector installed on an iPad. Representative photographs of the Project were taken to document current site conditions and any biological resources observed and are included in this document.

Survey Results

The BSA is located on the San Joaquin Valley floor on farmland that is relatively flat and exhibits little topographic variation. The land has been historically used for agriculture and is currently in cultivation. Sprouting wheat is present throughout the flood irrigated field along with other ruderal grasses and forbs including fiddleneck (*Amsinckia intermedia*), pepper grass (*Lepidium densiflorum*), and tumble mustard (*Sisymbrium altissimum*). The surrounding land consists of agricultural, fallow land and similar agrarian uses (Figure 1).

Plants

Queries of the CNDDB, iPaC and the CNPS database yielded records for 9 special-status plant species documented within 10 miles of the Project site. These species include recurved larkspur (*Delphinium recurvatum*), Hoover's eriastrum (*Eriastrum hooveri*), alkali-sink goldfields (*Lasthenia chrysantha*), Ferris' goldfields (*Lasthenia ferrisiae*), San Joaquin woollythreads (*Monolopia congdonii*), mud nama (*Nama stenocarpa*), California alkali grass (*Puccinellia simplex*), Sanford's arrowhead (*Sagittaria sanfordii*), and San Joaquin bluecurls (*Trichostema ovatum*). None of the 9 special-status species were observed during the survey, and there are no records of the species occurring on the BSA. Although floristic surveys were not conducted during the optimal surveying window, it is highly unlikely these special-status plant species would occur on the site due to the historic cultivation use, lack of suitable habitat (species elevation restrictions, required soil types, plant associations), and site conditions documented during the survey. The site has low potential for special-status plant species to occur.

Wildlife

Queries of the CNDDB and iPaC databases yielded records for 26 special-status wildlife species within 10 miles of the Project. Habitat for most of these species does not occur on the site, however highly mobile species may occur as transient foragers, including, Swainson's hawk (*Buteo swainsoni*), San Joaquin kit fox (*Vulpes macrotis mutica;* SJKF), American badger (*Taxidea taxus;* AMBA), and burrowing owl (*Athene cunicularia;* WEBO). There are CNDDB recorded occurrences for SJKF within four miles of the Project site and no CNDDB records for AMBA or WEBO within ten miles of the Project site. None of these species or their diagnostic (scat, burrows, dens, etc.) were present during the survey and the disturbed nature of the BSA provides little suitable habitat to support occupation. The buffer contained a minimal amount of California ground squirrel burrows which appeared to be inactive. No suitable burrows that could support special-status small mammal species were present in the Project site and there were no dens or burrows that could support SJKF, AMBA, or WEBO. Additionally, the Project site is flood irrigated which precludes most burrowing species from becoming established. However, these SJKF, AMBA or WEBO could be on the site as a transient forager.

All special-status wildlife bird species have potential to occur on the Project site as transient foragers. However, to comply with the Migratory Bird Treaty Act and Fish and Game Code 3503.5 any construction initiated during nesting season (February 15-August 15), will have a disturbance buffer for all active nests. No nests were present during the survey.

Aquatic Resources

The NHD/NWI indicates two water features in the Project site; one was present along the southern and western boundary of the Project site (Figure 1). However, the other water feature that was shown to run through the Project site was absent. Impact to any aquatic resource that falls under State or federal jurisdiction may require additional consultation with the following agencies California Department of Fish and Wildlife, Regional Water Quality Control Board and United States Army Core of Engineers. If the water feature is not impacted by construction of the Project, no additional permitting would be required.

Conclusions

The property is heavily disturbed by ongoing agricultural activities. There is little to no suitable habitat on the Project site or surrounding area to support most special status species as outlined above. Based on the review of relevant databases and the results of the completed reconnaissance survey, it is our opinion that biological resources known to be in the area are unlikely to inhabit the site, and therefore will not be impacted by this project. There is a possibly that several special status species, such as SJKF, AMBA and WEBO might appear as transient foragers.

To ensure there are no impacts to biological resources, the following avoidance and minimization measures are recommended.

BIO-1 Within 14 days of the start of Project construction activities, a pre-construction survey should be conducted by a qualified biologist knowledgeable in the identification of these species. The pre-construction survey should include walking transects to identify the presence of burrowing owls and their burrows, American badgers and their dens, and desert kit foxes and their dens. The pre-activity survey shall be spaced at close enough intervals to provide 100 percent coverage of the Project site and a 250-foot buffer for American badger, and desert kit fox, and a 250-foot buffer for nesting burrowing owl. If no evidence of these special-status species is detected, no further action is required.

BIO-2 If dens or burrows that could support any of these species are discovered during the pre-activity survey conducted under Measure BIO-5, the avoidance buffers outlined below should be established, and den or burrow monitoring will be conducted in accordance with the California Department of Fish and Game (CDFG) *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) and USFWS *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011b). No work would occur within these buffers unless the biologist approves and monitors the activity.

Burrows and dens may be excavated by a qualified biologist once it is determined that the burrow or den is not occupied. To determine occupation, each den should be monitored for three consecutive days/nights using tracking medium and/or remote cameras fitted with a motion detector and/or infra-red triggering system. In addition, prior to excavation of burrows or dens, one-way doors may be installed (only in non-breeding season), and the burrows or dens will be scoped with optic cameras to ensure no occupation of wildlife are present. All excavations would be accomplished by hand or backhoe under the direct supervision of a qualified biologist.

Burrowing Owl (active burrows only)

- Non-breeding season (September 1 – January 31): 160 feet
- Breeding season (February 1 – August 31): 250 feet

American Badger and Desert Kit Fox Natal/Pupping Season

- American Badger
  - Breeding Season: Late Summer – Early Fall
  - Pregnancy (Delayed Implantation): December through February
  - Pups are Born: March through April
  - Pup Dispersal: June through August
- San Joaquin Kit Fox
  - Mate Pairing: October through November
  - Mating: December through January (possibly into February)
  - Pups are Born: February or March
  - Pup Dispersal: July

American Badger and San Joaquin Kit Fox

- Potential or Atypical den: 50 feet
- Known den: 100 feet
- Natal or pupping den: 200 feet

BIO-3 If Project activities must occur during the nesting season (February 1 to September 15), pre-activity nesting bird surveys should be conducted 14 days prior to the start of construction at the construction site plus a 250-foot buffer (avoidance buffer) for songbirds and a 500-foot buffer for raptors (other than Swainson's hawk). The surveys should be phased with the construction of the Project. If no active nests are found, no further action is required. However, existing nests may become active, and new nests may be built at any time prior to and throughout the nesting season, including when construction activities are in progress. If active nests are found during the survey or at any time during construction of the Project, an avoidance buffer ranging from 250 feet to 500 feet may be required, with the avoidance buffer from any specific nest being determined by a qualified biologist. Full-time monitoring of an active nest may be needed when activities are occurring at the fringe of a buffer to determine whether activities are affecting nesting birds. Results of the monitoring may indicate a need to expand the size of avoidance buffer areas. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the adults or the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist, but full-time monitoring may be required. The biologist should have the ability to stop construction if nesting adults show any sign of distress.

BIO-4 The following avoidance and minimization measures should be implemented during all phases of the Project to reduce the potential for impacts. These are modified from the *U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011b), but they can be applied equally to protect all three species.

- Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all Project areas, except on County roads and State and federal highways.
- All Project activities should occur during daylight hours, but if work must be conducted at night, then a night-time construction speed limit of 10-mph should be established.
- Off-road traffic outside of designated Project areas should be prohibited.
- To prevent inadvertent entrapment of kit foxes or other animals during construction of the project, all excavated, steep-walled holes or trenches more than two feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps spaced at a minimum distance of 100 feet and constructed of earthen-fill or wooden planks should be installed.
- Before holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the CDFW should be contacted before proceeding with the work.
- In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape.
- All construction pipes, culverts, or similar structures with a diameter of four inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes, American badgers, and burrowing owls before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the animal vacates the pipe of its own accord. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity until the fox, badger, or burrowing owl has escaped.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Project site.
- No pets, such as dogs or cats, should be permitted on the Project site unless permitted in accordance with the American Disabilities Act.
- Project-related use of rodenticides and herbicides should be restricted.
- A representative should be appointed by the Project proponent, who will be the contact source for any employee or contractor who might inadvertently kill or injure one of these species or who finds a dead, injured, or entrapped animal. The representative should be identified

during the employee education program, and their name and telephone number should be provided to the CDFW.

- Upon completion of the Project, all areas subject to temporary ground disturbances (including storage and staging areas, temporary roads, pipeline corridors, etc.) should be recontoured and revegetated to promote restoration of the area to pre-project conditions following a revegetation plan approved by the County. An area subject to "temporary" disturbance means any area that is disturbed during the Project, but after Project completion, will not be subject to further disturbance and has the potential to be revegetated.
- Any Project personnel who are responsible for inadvertently killing or injuring one of these species should immediately report the incident to their representative. This representative should contact the CDFW immediately in the case of a dead, injured, or entrapped kit fox, American badger, or western burrowing owl.
- New sightings of American badger or western burrowing owl shall be reported to the CNDDB.

Please feel free to give us a call at (661) 616-2600 if you have any questions or would like to discuss our findings.

Attachments –Figure 1 and Representative Photographs (see following pages)

REFERENCES

California Department of Conservation. 2023. Williamson Act Program. Accessed February 2023 from https://www.conservation.ca.gov/dlrp/lca.

California Department of Fish and Wildlife. 2023. California Natural Diversity Database. Accessed February 2023 from https://map.dfg.ca.gov/rarefind/view/RareFind.aspx.

California Native Plant Society. 2023. Inventory of Rare and Endangered Plants. V.7-08c- Interim 02-02-2023. Updated online and accessed via: www.rareplants.cnps.org in February 2023.

USFWS. 2022a. Information for Planning and Consultation online project planning tool. Accessed via https://ecos.fws.gov/ipac/. [Accessed February 2023].

USFWS. 2022b. National Wetlands Inventory Wetlands Mapper. Accessed via https://www.fws.gov/wetlands/data/mapper.html. [Accessed February 2023].

United States Geological Survey (USGS). 2023. National Hydrography Dataset. Accessed via https://www.usgs.gov/core-science-systems/ngp/national-hydrography. [Accessed February 2023].

Figure-1
Biological Study Area and Biological Resources Map
Kings CSG 1 Solar Project, Kings County, California

Photo 1. View from southwest corner of parcel facing north.
GPS coordinates: 36.218763, -119.779576.
Taken by Eric Madueno on February 23, 2023.

Photo 2. View from southeast corner of parcel facing northwest.
GPS coordinates: 36.218748, -119.775454.
Taken by Eric Madueno on February 23, 2023.

Photo 3. View from northeast corner of the parcel facing west.
GPS coordinates: 36.222236, -119.775815.
Taken by Eric Madueno on February 23, 2023.

Photo 4. View from northwest corner of parcel facing southeast.
GPS coordinates: 36.222232, -119.779967
Taken by Eric Madueno on February 23, 2023.

Photo 5. California ground squirrel burrow in the BSA.
GPS coordinates: 36.222205, -119.779191.
Taken by William Ryan on February 23, 2023.

Photo 6. Irrigation drainage point in the BSA.
GPS coordinates: 36.220811, -119.780143.
Taken by Eric Madueno on February 23, 2023.

APPENDIX F
CULTURAL RESOURCES - CONFIDENTIAL

APPENDIX G
TRIP GENERATION MEMO

MEMO

Date: June 1, 2023 **Project No.:** 220309.03 /Task / Phase

To: Abby Reed, Kings CSG LLC

From: Christine Chavez

Subject: Kings CSG 1 Solar Project

cc:

The purpose of this memo is to quantify the vehicle trips that would be generated during and after the construction of the proposed Kings CSG 1 Solar Project. The project is located approximately 2.5 miles northeast of the town of Stratford, on the east side of 18th Avenue in unincorporated Kings County. The project proposes to construct a 5 MWac solar photovoltaic power generating facility with Battery Energy Storage (BESS) on approximately 40 acres of a 119-acre parcel.

The project site plan is shown in Figure 1.

Construction Trip Generation

It is anticipated that construction activity would follow 3 major phases:

Phase 1 – Mobilization
Phase 2 – Site Improvements and Grading
Phase 3 – Panel Installation and Connection

Heavy construction equipment would be moved on-site at the beginning of construction and would remain on-site throughout, as needed. These trips have not been included in the construction trip generation calculation, as they would not occur on a daily basis during construction. It is anticipated that daily vehicle traffic would be primarily made up of worker's passenger cars/light trucks, dump trucks during any soil import/export, concrete trucks and flatbed delivery trucks during on-site construction, water trucks and porta let trucks. The highest number of trips would likely be from construction workers traveling to and from the site each day. The number of workers required during each phase has been estimated based on the required workers and construction equipment that were required for the construction of other similar solar projects.

It is anticipated that construction of the project would occur Monday through Friday and that construction workers would arrive on-site before 7 AM to start work at 7 AM and would depart prior to the 4 PM to 6 PM peak commute period. However, the trip generation assumes that 25 percent of workers may arrive during the peak period between 7 AM and 9 AM and could depart between 4 PM and 6 PM. Most construction and delivery trucks would arrive and depart the site throughout the day. For the trip generation, it has been assumed that at least one of each type of off-site construction vehicle would arrive or depart the site during the peak hours.

The construction trip generation is shown in Table 1 and has been calculated for total trips and for passenger car equivalent (PCE). A PCE factor is applied to truck trips to account for the fact that trucks utilize more capacity on the roadway than a passenger car due to larger size and slower acceleration. PCE factors of 2.0 for medium trucks and 3.0 for heavy trucks were used for this analysis and are conservative based on the guidance for passenger car equivalent factors found in the Highway Capacity Manual, 6th Edition (Transportation Research Board , 2016).

As shown in Table 1, the phase with the highest construction trip generation would be during Phase 3 - On- Site Construction and Panel Installation with 192 daily and 24 peak hour trips. When adjusted to account for PCE, Phase 3 would generate 240 daily and 30 peak hour trips.

Table 1. Construction Trip Generation

	PCE	Vehicle Trips			PCE Trips		
		Daily	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour	PM Peak Hour
Phase 1 - Mobilization							
Workers (estimated 20 workers)	1.0	40	5	5	40	5	5
Flatbed Delivery Trucks	3.0	14	2	2	42	6	6
Porta Let Trucks	2.0	6	1	1	12	2	2
Phase 1 Total		60	8	8	94	13	13
Phase 2 - Site Preparation and Grading							
Workers (estimated 35 workers)	1.0	100	13	13	100	13	13
Water Trucks	2.0	10	1	1	20	2	2
Porta Let Trucks	2.0	6	1	1	12	2	2
Phase 2 Total		116	15	15	132	17	17
Phase 3 - On-Site Construction and Panel Installation							
Workers (estimated 60 workers)	1.0	160	20	20	160	20	20
Flatbed Delivery Trucks	3.0	16	2	2	48	6	6
Water Trucks	2.0	6	1	1	12	2	2
Porta Let Trucks	2.0	10	1	1	20	2	2
Phase 3 Total		192	24	24	240	30	30

PCE = Passenger Car Equivalent

[1] Worker trips are assumed to be outside of the peak hours. However, it is estimated that 25 percent of workers may arrive or depart the site during the AM or PM peak commute periods.

Operation Trip Generation

Operation of the project would require significantly fewer trips than generated during the construction phase. The project would not be permanently staffed during operation. The site would be accessed by maintenance personnel a few times per month to perform ongoing repair and maintenance of the facility.

In addition to routine maintenance, the solar panels would be washed approximately once per quarter. A crew of approximately 5 to 13 maintenance workers would perform the quarterly panel washing. No heavy equipment would be required.

Vehicle Miles Traveled

Senate Bill (SB) 743 was signed by Governor Brown in 2013 and required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to LOS for evaluating Transportation impacts. SB 743 specified that the new criteria should promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks and a diversity of land uses. The bill also specified that delay-based level of service could no longer be considered an indicator of a significant impact on the environment. In response, Section 15064.3 was added to the CEQA Guidelines beginning January 1, 2019. Section 15064.3 - Determining the Significance of Transportation Impacts states that Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts and provides lead agencies with the discretion to choose the most appropriate methodology and thresholds for evaluating VMT. Section 15064.3(c) states that the provisions of the section shall apply statewide beginning on July 1, 2020.

The County of Kings has not adopted VMT analysis guidelines; therefore, guidelines from the OPR Technical Advisory on Evaluating Transportation Impacts In CEQA, December 2018, are applied. The OPR guidelines state that small projects that generate fewer than 110 average daily trips during project operation would be presumed to have a less than significant impact on VMT and are generally exempt from further analysis of VMT. The operation of the project would generate a maximum of 28 daily trips (13 panel washers and 1 maintenance worker to and from the project) for four (4) days in a calendar year. For this reason, the project would have a less than significant impact on VMT and no further analysis is required.

Site Access

Access to the project site would be off of 18th Avenue via Kansas Avenue. These roadways are two-lane rural roads serving adjacent farms, residences, and other solar facilities. There are no significant traffic generating land uses in the vicinity of the project and therefore traffic volumes on the adjacent roadways are expected to be low. The addition of 30 peak hour PCE trips (approximately one trip every 2 minutes) is not expected to cause any operational deficiency on any adjacent roadway.

Summary and Conclusions

Construction of Phase 3 of the proposed Kings CSG 1 Solar project is forecast to temporarily generate 192 daily and 24 peak hour trips. When adjusted to account for passenger car equivalent, Phase 3 would generate 240 daily and 30 peak hour trips, temporarily during construction. Operation of the project would not require any permanent staffing and would therefore not generate vehicle trips on a daily basis. Ongoing repair and maintenance of the project would require personnel to be on-site a few times per year. The addition of 30 peak hour PCE trips (approximately one trip every 2 minutes) is not expected to cause any operational deficiency on any adjacent roadway.

References

Transportation Research Board . (2016). *Highway Capacity Manual, 6th Edition.*

FIGURE 1

Conceptual Site Plan

LEGEND

(OE)	OVERHEAD ELECTRIC, EXISTING
OE	OVERHEAD ELECTRIC, PROPOSED
UE	UNDERGROUND ELECTRIC, PROPOSED
(E)	EXISTING
(N)	NEW

026-060-006

026-070-010

EXISTING PG&E SUBSTATION

026-070-018

UTILITY-OWNED POLE-MOUNTED PROTECTION DEVICE

UTILITY-OWNED POLE-MOUNTED METERS POINT OF COMMON COUPLING (POCC)

CUSTOMER-OWNED 15KV DISCONNECT SWITCH; UTILITY ACCESSIBLE, LOCKABLE, FUSED

CUSTOMER-OWNED RECLOSER

CUSTOMER-OWNED POLE WITH REVENUE METER

CUSTOMER-OWNED RISER POLE

026-070-017

PROPERTY LINE

026-070-021

POI @ (E) POLE FEEDER: JACOBS 1101

SITE ACCESS ROAD

69'

146'

GATE

10,000 GALLON SELF-FILLING WATER STORAGE TANK

FENCE TYP
7 foot chain-link fence with 3 strands of barbed wire

PV MODULES ON SINGLE AXIS TRACKERS (N/S) TYP

68'

(E) 30' ROAD EASEMENT PER DOCUMENT NO. 2256 DATED FEBRUARY 17, 1965

SMA SCS 3950 UP-XT-US CENTRAL INVERTERS FOR BESS

EQUIPMENT AREA WITH PV INVERTERS, SWITCHGEAR, TRANSFORMER 'XMFR #2'

(E) 12KV OVERHEAD UTILITY LINES

20' INTERNAL GRAVEL ACCESS ROAD TYP

XMFR #1 FOR BESS

(29) BATTERY MODULES WITH DC TO DC CONVERTERS

026-060-007

1027'

MIN 20' SETBACK FROM MODULES TO FENCE TYP

20' WIDE GRAVEL ACCESS ROAD TYP

EQUIPMENT AREA WITH PV INVERTERS, SWITCHGEAR, TRANSFORMER 'XMFR #3'

(E) PAVED ROAD

18TH AVENUE

MIN 20' SETBACK FROM MODULES TO FENCE TYP

026-070-009

FENCE TYP

141'

1245'

N

60' 0' 60'

SCALE: 1"= 60'

L:\PROJECTS\2023\220309.03\ACAD\DWGS\220309.03 JACOBS CIRCUIT SITE.DWG 4/12/2023 3:03 PM

PROJECT NO.:	220309.03
DRAWN BY:	KK
QA/QC BY:	PLH
SCALE:	AS SHOWN
SHEET NO.:	2 OF 2

CONCEPTUAL SITE PLAN

Kings CSG 1, LLC

Kings CSG 1 Solar

SECTION 2, T.20S, R.20E., M.D.M.

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