

KINGS COUNTY PLANNING COMMISSION

**Regular Meeting
7:00 P.M.**

**Government Center
Hanford, California**

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Community Development Agency at (559) 852-2680 by 4:00 p.m. on the Thursday prior to this meeting. Agenda backup information and any public records provided to the Commission after the posting of the agenda for this meeting will be available for public review at the Kings County Community Development Agency, Building No. 6, Kings County Government Center, 1400 W. Lacey Blvd., Hanford, California.

AGENDA November 3, 2014

This meeting will be held in the Board of Supervisors Chambers, Administration Building No. 1, Kings County Government Center, 1400 W. Lacey Boulevard, Hanford, California. Pursuant to California Government Code Section 65009, subdivision (b), if you challenge a decision of the Planning Commission in court, you may be limited to raising only those issues you or someone else raised at the public hearing, or in written correspondence delivered to the Planning Commission at, or prior to, the public hearing.

I. CALL TO ORDER - Kings County Planning Commission Meeting

- 1. REQUEST THAT CELL PHONES BE TURNED OFF**
- 2. PLEDGE OF ALLEGIANCE**
- 2. SUMMARY OF THE AGENDA - Staff**
- 3. UNSCHEDULED APPEARANCES**

Any person may address the Commission on any subject matter within the jurisdiction or responsibility of the Commission at the beginning of the meeting; or may elect to address the Commission on any agenda item at the time the item is called by the Chair, but before the matter is acted upon by the Commission. Unscheduled comments will be limited to five minutes.

- 4. APPROVAL OF MINUTES - Meeting of October 6, 2014.**

II. OLD BUSINESS None

III. NEW BUSINESS

- 1. CONDITIONAL USE PERMIT NO. 14-03 (ImMODO Solar Lemoore) – The applicant proposes to establish an 8 Megawatt (MW) photovoltaic solar energy generating facility located at 14805 19th Avenue, Lemoore, Assessor's Parcel Numbers 024-080-036, 037 & 038.**
 - A. Staff Report
 - B. Public Hearing
 - C. Decision

IV. MISCELLANEOUS

- 1. FUTURE MEETINGS** - The next regular meeting of the Planning Commission is scheduled for Monday, December 1, 2014.
- 2. CORRESPONDENCE**
- 3. STAFF COMMENTS**
- 4. COMMISSION COMMENTS**

V. ADJOURNMENT

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NOTICE OF RIGHT TO APPEAL: For projects where the Planning Commission's action is final, actions are subject to appeal by the applicant or any other directly affected person or party and no development proposed by the application may be authorized until the final date of the appeal period. An appeal may be filed with the Community Development Agency at 1400 W. Lacey Blvd., Building #6, Hanford, CA, on forms available at the Community Development Agency. A filing fee of \$320.00 must accompany the appeal form. The appeal must be filed within 8 days of the Planning Commission's decision date, not including the date of the decision. If no appeal is received, the Planning Commission's action is final. There is no right of appeal for projects for which the Planning Commission's action is advisory to the Board of Supervisors.

**KINGS COUNTY PLANNING COMMISSION
MINUTES**

District 1 Commissioner – Riley Jones**

District 2 Commissioner – Bob Bajwa

District 3 Commissioner – R.G. Trapnell

District 4 Commissioner – Jim Gregory*

District 5 Commissioner – Steven Dias

*Chairman

**Vice-Chairman

October 6, 2014

CALL TO ORDER: The meeting of the Kings County Planning Commission was called to order by Chairman Gregory, on October 6, 2014, at 7:00 p.m. in the Board of Supervisors Chambers, Administration Building, Kings County Government Center, Hanford, California. The Pledge of Allegiance was recited.

COMMISSIONERS PRESENT: Jim Gregory, R.G. Trapnell, Bob Bajwa, Steven Dias

COMMISSIONERS ABSENT: Riley Jones

STAFF PRESENT: Erik Kaeding – County Counsel, Chuck Kinney – Deputy Director – Planning, Terri Yarbrough – Executive Secretary, Sandy Roper – Principle Planner, Dan Kassik - Senior Planner

VISITORS PRESENT: James Diven, Roger Hewett, Carl Jones, Karen Ladd

SUMMARY OF THE AGENDA: Mr. Kinney summarized the agenda for the Commission.

**UNSCHEDULED
APPEARANCES:**

No one spoke during this portion of the meeting.

APPROVAL OF MINUTES:

Mr. Kaeding reported that after questions were brought up at the last meeting regarding the approval of the minutes he researched Robert's Rules of Order and found that a motion isn't required to approve the meeting minutes. He stated that the proper procedure is for the Chairperson to announce that unless there are any amendments, the minutes stand approved. If there are amendments, he would then announce that the minutes stand approved as amended. Chairman Gregory then announced that the minutes of the September 16, 2014 meeting stand approved unless there were any amendments. There were no amendments.

OLD BUSINESS

None

NEW BUSINESS:

1. Addendum No. 1 to Conditional Use Permit No. 11-03 (Sunpower)

Mr. Roper provided an overview of an addendum to 1) eliminate Mitigation Measure AQ-6 since updated emission estimates show that the potential impact related to nitrogen oxides (NO_x) are now below the San Joaquin Valley Air Pollution Control District's regional thresholds of significance 2) adding additional detail concerning the off-site Pacific Gas and Electric Company's switching station facility. The project is located at 17515 20th Avenue, Lemoore, CA, Assessor's Parcel Numbers 024-170-007; 026-050-012; and 026-060-01-, 021, 023, and 025. Mr. Roper stated that the project was located within an agricultural zone designation and the Williamson Act contract has been cancelled. He stated that there are no new impact that would require preparation of a subsequent mitigated negative declaration. Chairman Gregory asked if an encroachment permit would be required since the project crosses over county roads. Mr. Roper stated that was addressed during the approval of CUP 11-03.

Chairman Gregory opened the public hearing and asked if there was anyone wishing to speak in favor of the project. Mr. James Diven, representing SunPower, spoke in favor of the project and offered to answer any questions anyone might have. Chairman Gregory asked if there was anyone wishing to speak against the project. Mr. Roger Hewett, owner of Blair Air, spoke in opposition. He stated he was not really in opposition but had concerns with regard to a runoff area on both ends of his runway and he would like to have any towers marked. Mr. Hewett and Mr. Diven agreed to meet and work it out. Chairman Gregory asked if there was anyone else wishing to speak against the project. Seeing none, he closed the Public Hearing.

A motion was made and seconded (Trapnell/Dias) to adopt Planning Commission Resolution 14-09 approving the addendum to CUP 11-03.

2. Conditional Use Permit No. 14-04 (AT&T)

Mr. Kassik provided an overview of a proposal to establish a new 100-foot monopole wireless communication facility with a fenced lease area for ground equipment located at 15834 17th Avenue, Lemoore, Assessor's Parcel Number 024-150-008. Mr. Kassik stated the project was located in an AG20 zone designation. He reported that there is a potential that tribal remains may exist at the location. A tribal monitor would be required to be onsite when soil is being disturbed and if any archaeological or historical resources are observed, activities shall cease within fifty (50) feet of the find. Mr. Trapnell asked if the tower would have a beacon. Mr. Kassik confirmed the tower would have a light and that it was a condition of the permit.

Chairman Gregory opened the public hearing and asked if there was anyone wishing to speak in favor of the project. Mr. Carl Jones, representing AT&T, spoke in favor of the project. Chairman Gregory asked if there was anyone else wishing to speak in favor of the project. Seeing none, he asked if there was anyone wishing to speak in opposition of the project. Seeing none, he closed the Public Hearing.

A motion was made and seconded (Dias/Bajwa) to adopt Planning Commission Resolution 14-10 adopt Planning Commission Resolution 14-10 approving the proposal to establish a new 100-foot monopole wireless communication facility.

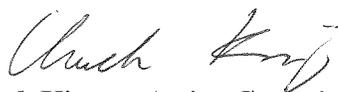
MISCELLANEOUS

- 1. FUTURE MEETINGS:** The next regular meeting of the Planning Commission is scheduled for Monday, November 3, 2014.
- 2. CORRESPONDENCE:** None
- 3. STAFF COMMENTS:** Mr. Kinney announced that the 2015 meeting calendar was included in the packet. Mr. Roper also noted that the December meeting should be shown as December 7, 2015.
- 4. COMMISSION COMMENTS:** Mr. Dias informed the Commission he would not be available for the November 3, 2014 meeting.

ADJOURNMENT – The meeting was adjourned at 7:47 p.m.

Respectfully Submitted,

KINGS COUNTY PLANNING COMMISSION



Chuck Kinney, Acting Commission Secretary

KINGS COUNTY PLANNING COMMISSION STAFF REPORT

Conditional Use Permit No. 14-03 Zoning Ordinance No. 269.69

APPLICANT: ImMODO Energy Services, 3904 W. Caldwell Ave., Visalia, CA 93277

PROPERTY OWNERS: William J. Badasci Trust, Bill Wood, Trustee, P.O. Box 216, Lemoore, CA 93245

LOCATION: 14805 19th Avenue, Lemoore, Assessor's Parcel Numbers 024-080-036, 037 & 038.

GENERAL PLAN DESIGNATION: General Agriculture 20 (AG-20)

ZONE DISTRICT CLASSIFICATION: General Agricultural 20 (AG-20)

CONDITIONAL USE PROPOSED: The applicant proposes to establish an 8 Megawatt (MW) photovoltaic solar energy generating facility located at 14805 19th Avenue, Lemoore.

CURRENT USE OF SITE: The Project site consists currently of vacant/fallow land and has been previously used for agricultural activities and soil excavation. There are no structures currently on the project site.

LAND USE SURROUNDING SITE: Agricultural lands are located to the north, south, east and west of the Project site. The City of Lemoore is west of the Project site, on the west side of 19th Avenue. Property in the vicinity is located in the AG- 20 and LI-Light Industrial zone districts. There is a private water skiing lake to the east, that is also zoned AG20. The Santa Rosa Rancheria Cemetery is located south of the Project site on the east side of 19th Avenue, approximately ¼ mile south of Jackson Avenue.

ENVIRONMENTAL REVIEW:

The Initial Study/Mitigated Negative Declaration (IS/MND) for the ImMODO Lemoore project was circulated for public review from September 12, 2014, through October 14, 2014. Five sets of comments were received before the end of the public review period from the Building Division of the Kings County

Community Development Agency, the Kings County Fire Department, the Kings County Environmental Health Department, the Kings County Public Works Department, and the Santa Rosa Rancheria Tachi Yokut Tribe. The letters from the Building Division of the Kings County Community Development Agency, the Kings County Fire Department, the Kings County Environmental Health Department and the Kings County Public Works Department contained comments, standards, and requirements from those agencies, which have been listed in both the staff report and the resolution for this project. The comments from the Santa Rosa Rancheria Tachi Yokut Tribe are attached to this staff report as Attachment No. 1.

The comment from the Santa Rosa Rancheria Tachi Yokut Tribe was addressed by adding a condition of approval that requires the applicant to hire a Native American monitor to oversee any ground disturbing activities. The comments did not result in any changes to the IS/MND. Accordingly, pursuant to CEQA Guidelines § 15073.5, recirculation of the IS/MND is not required.

A review of this Project in compliance with the *California Environmental Quality Act (CEQA)* indicates that there may be significant adverse impacts to the environment; however, those impacts can be mitigated to an insignificant level by implementing the Mitigation Monitoring and Reporting Program, which is located in Section 4 of the IS/MND. There is no evidence in the record that indicates that the Project has potential for adverse effects on wildlife, resources or habitat for wildlife.

DISCUSSION:

Project Overview

The proposed project involves the construction and operation of an eight megawatt alternating current solar photovoltaic power generating facility.

The Project site is located east of State Route (SR) 41 and south of SR 198 and more specifically, immediately north of Jackson Avenue and east of 19th Avenue. (see Site Map).

Project Objectives

The 60.39-acre Project would provide Kings County as well as the State of California with a renewable energy source that would assist the State of California in complying with the Renewables Portfolio Standard (RPS) under Senate Bill 1078, which requires that 33 percent of all electricity sold in the state to be generated from renewable energy sources by the year 2020. The applicant is proposing to construct the project to meet the following objectives:

- Provide up to a 8-MW project generating electricity through the optimization of renewable solar energy sources
- Stimulate the local economy through job creation
- Support California's efforts to reduce greenhouse gas (GHG) emissions consistent with the timeline established by California Assembly Bill 32, the Global Warming Solutions Act of 2006
- Support California's aggressive RPS goal of 33 percent renewable energy generation by 2020
- Meet obligations under a proposed Power Purchase Agreement with a utility to assist it in meeting its RPS mandate
- Develop an economically feasible and commercially financeable project
- Provide solar-generated electricity to the California Independent System Operator grid
- Provide property tax revenues to Kings County

The 8 MW Solar Generation Facility (Project) will include the installation of approximately 26,667 to 38,000 solar modules, depending on the final module selection and their corresponding size ranging generally from 240-330 watts per module. This Project will generate approximately 16,000 MWh of electricity in the first year which is enough energy to power 100% of the electricity usage of 1,800 households in Kings County

Project Facilities

Solar Generator

The Applicant will use a ground-mount racking system to mount the PV modules and the preferred module structural support is a ram-post foundation using metal supports that are pile-driven into the ground to depths of 6'-14'. The racking system may be fixed or single-axis tracking. It is possible that soil conditions on some rows will require a ram-post/concrete foundation or a concrete pad.

The racking system will generally consist of arrays of 12-18 modules installed 2 rows of 6 modules approximately 12-feet tall and 20-feet long. Each array will generally have 3 ram-post supports and the array will be tilted at not more than 50 degrees in a fixed array. The maximum height of the arrays is not more than 13-feet and the ground clearance at the lowest point of the array is about 2-feet. The arrays are aligned in even length rows with the centerline of each row generally 16-26-feet apart. The clear space between rows of modules will be 10-feet to 14-feet at a minimum to provide enough space for service and cleaning vehicles.

The solar generator will consist of 500 to 750 kW groups. Electrically the modules will be connected into strings of 11-120 modules which are generally configured into 550-680 blocks which will be wired to a 500 to 750 kW inverter. The variation in number of blocks is dependent on the PV module size of which will range in size from 240 Wp to 330 Wp. As such each 500 to 750 kW group will consist of 1,667 to 2,375 modules.

Control Rooms

The Project will have 3-8 factory-built, pre-assembled, all steel, non-combustible control rooms centrally located within the solar field. The dimensions for each control room are approximately 8-10-feet wide and 22-24-feet long. Each control room will be mounted on an elevated concrete pad with dimensions of approximately 15-feet by 30-feet. Each control room will contain inverters, a step-up transformer, and switchgear. One control room will contain an electronics rack containing metering equipment, a telecommunications control box, and a security recorder. The control rooms will be climate controlled with electricity provided through a retail account with PG&E. Battery storage may be located near the main control room.

Telecommunications

The facility is expected to have a high speed communication line for required utility system controls and metering and for the on-site security and monitoring/control system. The facility would be designed and operated with proprietary Supervisory Control and Data Acquisition (SCADA) system to allow remote monitoring of facility operation and/or remote control of critical components. Within the site, the cabling required for the monitoring system would typically be installed in buried conduit, leading to a centrally located (or series of appropriately located) SCADA system electronic cabinets in the Control Room. This cabinet is rack-mounted with other electronics in the Control Room and is approximately 3-feet long x 3-feet wide x 3-feet tall. External telecommunications connections to the SCADA system cabinets may

be through either wireless or hard wired connections to locally available commercial service providers.

Weather Station

A weather station will also be configured to collect meteorological data such as solar resources, temperature, humidity, precipitation, pressure, and wind direction. The meteorological instruments are mounted 10-feet high on a pole at one of the control rooms well inside the property perimeter.

Access/Interior Roads

The main gate will face onto 19th Avenue. Interior service driveways will be 18 to 20-feet wide and consist of crushed aggregate. The 10-14-foot space between the rows will be compacted and will provide service access to vehicles for maintenance, repair and cleaning. There will be no employees stationed at the site on a permanent basis.

Fencing

For public safety and security, six feet tall fencing with privacy slats and security wire will be installed around the perimeter of the proposed Project consistent with County requirements under the building permit. The fence will be constructed with a 5 to 7-inch opening at the base to allow wildlife movement through the site.

Lighting

A motion-activated security lighting system may be installed with the lights hooded and directionally aligned to interior to minimize off-site light and glare. The motion sensor will be calibrated to moving objects greater than 50 pounds. If the lights are motion-triggered, a signal would go to the off-site security service and/or to central off-site control room to remotely control multiple projects. An off-site security services and/or monitoring technician/operator will control on-site, web-based video cameras to identify the nature of the intrusion alert and respond accordingly.

Interconnection

The project will interconnect to a PG&E 12 kv distribution line which runs along 19th Avenue at 36°15'29.96"N, 119°47'55.89"W. The physical point of interconnect will be at a PG&E pole located on the southeast corner of the property. The feeds from the inverter/transformer pads will run to a switchgear and production meter at the point of ownership change at the perimeter fence line. Everything past the meter is owned by PG&E and is consider on the "utility-side" of the meter. It is expected that PG&E will add a new pole of compatible height between two existing poles for a 12 kv line tap in the PG&E right-of-way with the new pole having a disconnect switch. An interconnection application was filed with PG&E on July 3, 2014, under the utility's Wholesale Distribution Access Tariff.

Operation, Security and Maintenance

The solar facility will be remotely operated and require no on-site daily operating staff. Occasional service employees may be on-site for scheduled, preventive maintenance as well as unscheduled service. Combustible vegetation on and around the proposed Project boundary will be managed, and the proposed Project will include fire breaks around the proposed Project boundary in accordance with County and/or state standards. The Applicant will also coordinate with the County and state fire officials as necessary to provide photovoltaic training to fire responders.

Construction

The Project will require a County Building Permit and the construction period is anticipated to be completed within 36 months of approval of the Conditional Use Permit. There will be two phases, each expected to be approximately five months each.

Each construction phase is expected to have the following stages and general durations:

- Site preparation including grading fencing underground trenching (Phase 1 only). One month duration.
- Installation of PV structures, panels and control room equipment. Three month duration.
- System testing, commissioning, interconnection and clean up. One month duration.

Construction equipment will include the use of graders, compacters, trenchers, backhoes, forklifts, pile drivers, skid steers, front end loaders, 5-kW Generators, 20-kW Generators, water trucks, and materials and equipment hauling trucks.

General hours during the construction phase will be conducted during day light hours, Monday through Friday, excluding holidays. The proposed Project construction will also include the installation of the PV panels and control rooms. Post construction activities will include site system testing, commissioning and site clean-up.

Storm Water Protection

Because construction of the project would disturb a surface area greater than 1-acre, the applicant would be required to obtain coverage under the state Construction General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities (2012-0006-DWQ). To enroll under this permit, the project sponsor would prepare a Storm Water Pollution Prevention Plan (SWPPP) that details project information; monitoring and reporting procedures; and Best Management Practices (BMPs), such as dewatering procedures, stormwater runoff quality control measures, and concrete waste management, as necessary. The SWPPP would be based on final engineering design and would include all project components.

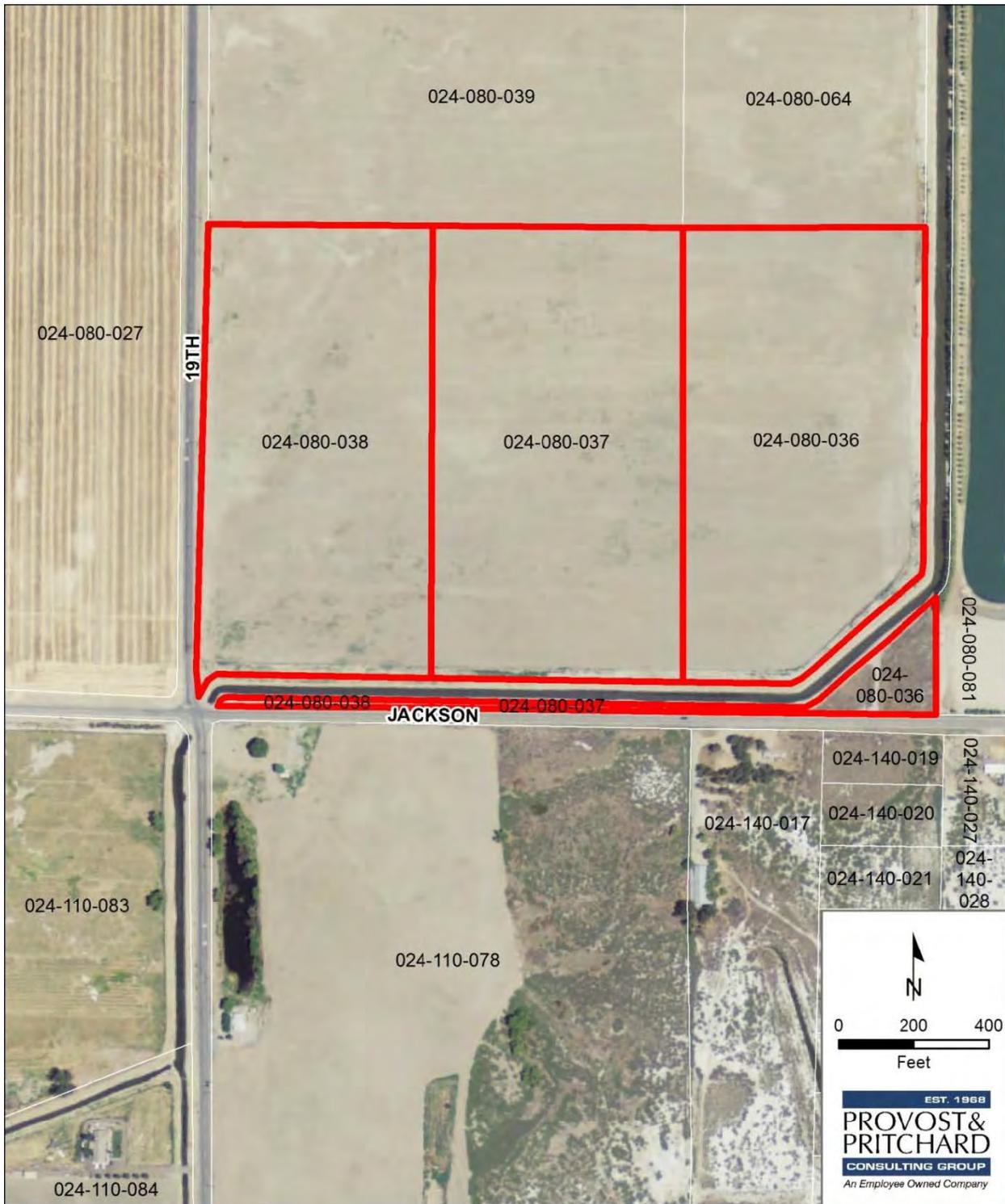
Material Staging

Construction of the project would require temporary staging and storage areas for materials and equipment during the construction process. The materials staging and storage would take place within the project site in areas that would not be used for panels. Additional staging and vehicle parking would be located at the southern terminus for the initial phases of the project.

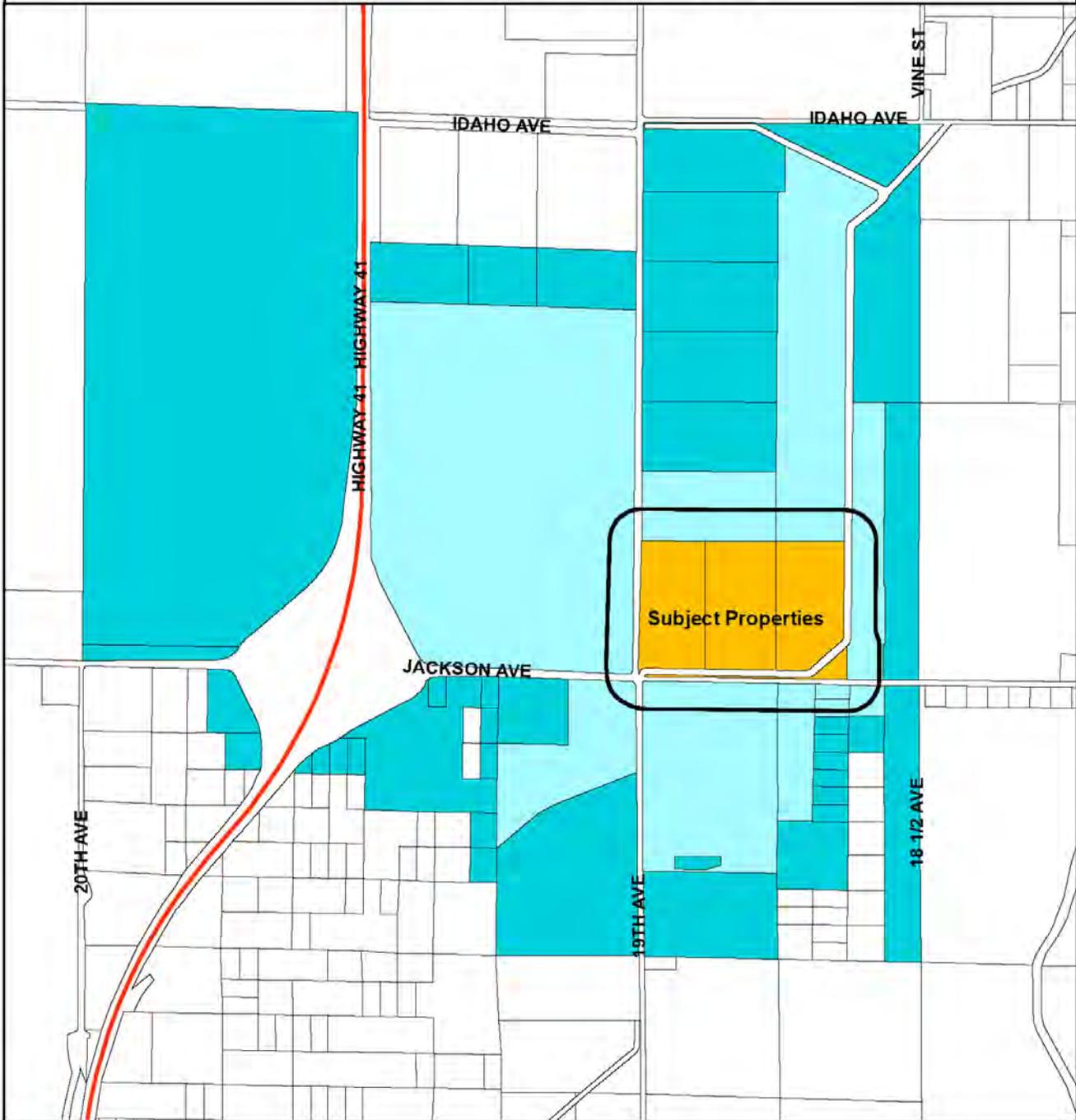
Other Permits and Approvals that may be Required

The project sponsor has submitted an application for a CUP to the Kings County Community Development Agency for the project. The following required permits and approvals have been identified for the project. Additional permits and approvals may also be required.

- **Kings County, Construction Permit (Building Permit).** The county authorizes construction activities under the master Construction Permit. This permit encompasses grading, building, electrical, mechanical, landscaping and other activities. The county's review for ordinance standards is undertaken as part of this review.
- **Kings County, Encroachment Permit.** Kings County requires an Encroachment Permit for utility trenching within a public right-of-way. As part of the application for the Encroachment Permit, the applicant must submit construction drawings and a traffic control plan for any work that would take place in public streets.
- **Central Valley Regional Water Quality Control Board, National Pollutant Discharge Permit.** Construction of the project and alternatives would disturb a surface area greater than 1 acre, so the project sponsor would be required to obtain a National Pollutant Discharge Elimination System Permit from the Central Valley Regional Water Quality Control Board. As part of this permit, a SWPPP would be developed and implemented.
- **San Joaquin Valley Air Pollution Control District (SJVAPCD), Indirect Source Review.** An Indirect Source Review (District Rule 9510) will be filed with the SJVAPCD to determine potential mitigation, if any, for oxides of nitrogen (NOx) and particulate matter less than or equal to 10 microns in diameter (PM10) emissions.
- **SJVAPCD, Dust Control Plan.** A dust control plan is required to be submitted and approved by the SJVAPCD prior to initiation of ground disturbances activities associated with construction.



CUP 14-03 Site and Notification Map



Map prepared by
Dan Kassik
Kings County Community Development Agency
September 11, 2014
1400 W. Lacey Blvd., Hanford, CA 93230

Legend

- Subject Property
- Next Adjacent
- 300 Foot Radius
- Highways

PROJECT REVIEW:

July 18, 2014	Application submitted
July 18, 2014	Application certified complete
September 12, 2014	Begin 30-day review period for environmental review
October 14, 2014	30-day environmental review period ends
November 3, 2014	Planning Commission hearing

STAFF ANALYSIS:

In order to approve this permit, the Commission is first required to find that:

- The use conforms to the policies of the *General Plan*.
- The use should not be detrimental to public health and safety, nor materially injurious to properties in the vicinity.
- The use will comply with applicable provisions of the *Ordinance*.

With regard to these required findings, staff comments that:

1. The proposed Project, as recommended for approval, is consistent with the objectives and the policies of the *2035 Kings County General Plan*, specifically:
 - A. Figure LU-16, the Kings County Land Use Map, of the Land Use Element of the *2035 Kings County General Plan* designates this site as General Agriculture (AG-20).
 - B. Page LU-13, Section III.A.1 of the “Land Use Element” of the *2035 Kings County General Plan* states that agricultural land use designations account for a vast majority of the County’s land use. Included within this land use type are four agricultural type land use designations, Limited Agriculture, General Agriculture 20 Acre Minimum, General Agriculture 40 Acre Minimum, and Exclusive Agriculture. The major differences between the four Agriculture designations relate to minimum parcel size, animal keeping, and agricultural service businesses. These designations preserve land best suited for agriculture, protect land from premature conversion, prevent encroachment of incompatible uses, and establish intensity of agricultural uses in a manner that remains compatible with other uses within the County. The development of agricultural service and produce processing facilities within the Agricultural areas of the County shall develop to County standards.
 - C. Page LU-13, Section III.A.1. of the “Land Use Element” states that the AG-20 designation is applied to rural areas of the county north of Kansas Avenue, excluding the Urban Fringe areas of Hanford and Lemoore, Communities of Armona and Home Garden, the Naval Air Station Lemoore, the Santa Rosa Rancheria Tribal Trust Land, and other small Rural Interface pockets of urban uses. Generally characterized by extensive and intensive agricultural uses, farms within this designation have historically been smaller in size. These areas should remain reserved for commercial agricultural uses because of their high quality

soil, natural and manmade waterways, scenic nature with larger concentrations of orchards, vineyards, and valley oak trees.

- D. Page LU-27, Section IV.B of the “Land Use Element” of the *2035 Kings County General Plan* states that the physical development of agricultural properties is regulated and implemented by the zoning ordinance.
 - E. Page LU-38, LU Goal B7 of the “Land Use Element” of the *2035 Kings County General Plan* states that community benefiting non-agricultural uses remain compatible within the County’s Agriculture Open Space area, and are supported for their continued operation and existence.
 - F. Page LU-38, LU Policy B7.1.3 of the “Land Use Element” of the *2035 Kings County General Plan* states that power generation facilities for commercial markets shall be allowed and regulated through the Conditional Use Permit approval process, and include thermal, wind, and solar photovoltaic electrical generating facilities that produce power.
 - G. Page RC-50, Section G, Objective G1.2 of the “Resource Conservation Element” states that the County will promote the development of sustainable and renewable alternative energy sources, including wind, solar, hydroelectric and biomass energy.
 - H. Page RC-50, Section G, Policy G1.2.2 of the “Resource Conservation Element” states the County will encourage and support efforts to develop commercial alternative energy sources in lower priority agricultural lands within Kings County, when appropriately sited.
 - I. Page RC-51, Section G, Policy G1.2.7 of the “Resource Conservation Element” states the County will require commercial solar and wind energy systems to be reviewed as a conditional use permit pursuant to the procedures of the Kings County Zoning Ordinance.
2. The use should not be detrimental to public health and safety, nor materially injurious to properties in the vicinity. A Mitigated Negative Declaration has been recommended for this Project. The proposed Project may have significant adverse impacts on the environment; however, those impacts can be mitigated to an insignificant level by implementing the Mitigation Monitoring and Reporting Plan attached to the Planning Commission Resolution for this project as Exhibit “A.” On the bases of the whole record (including the initial study and all comments received), there is no substantial evidence that the project will have a significant effect on the environment. The Mitigated Negative Declaration reflects the Planning Commission’s independent judgment and analysis.
3. The use complies with the applicable provisions of the ordinance, specifically: The proposed Project, as recommended for approval, is consistent with the *Kings County Zoning Ordinance*.
- A. Article 4, Section 402.D.21 of the General Agricultural (AG-20) District lists solar photovoltaic electrical generating facilities that commercially produce power for sale, which comply with all local, regional, State, and Federal regulations as a conditional use subject to Kings County Planning Commission approval.

- B. Article 19, Section 1908.H of the *Kings County Zoning Ordinance* states that the when an application is submitted for a solar photovoltaic electrical facility for commercial sale and distribution of electrical power, the following findings shall be made before granting a conditional use permit:
- (1) The proposed site is 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 combination thereof.
 - a. Figure RC-13 “Priority Agricultural Land,” in the Resource Conservation Element of the 2035 Kings County General Plan designates the project site as Very Low Priority Land.
 - (2) The proposed site is located within 1 mile of an existing 60-kV or higher utility electrical line.
 - a. An existing 60 KV power line is approximately 0.98 miles south of the project site.
 - (3) Agricultural mitigation is 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 that coincides with the life of the project. Agricultural mitigation on land designed “Medium-High” or higher priority land shall preserve an equivalent amount of agricultural acreage at a ratio of 2:1.
 - a. Agricultural mitigation does not apply because no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be affected by the project. The entire project site is designated as Grazing land by the FMMP.
 - (4) The project includes 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.
 - a. The project would provide a reclamation plan and financial assurance acceptable to the County, prior to the issuance of a building permit, which ensures the return of the land to a farmable state after completion of the project life prior to issuance of construction permits.
 - (5) The project includes a pest management plan and weed abatement plan to protect adjacent farmland from nuisances and disruption.
 - a. The project would provide a pest management plan and weed abatement plan to protect adjacent farmland from nuisances and disruption prior to

issuance of construction permits. The weed abatement plan would ensure that combustible vegetation or agricultural products on and around the project boundary would be actively managed by the project owner or its affiliates during both the construction and operation phases of the project to minimize fire risk. Combustible products would be limited in height or removed through a combination of sheep grazing and mechanical equipment. Herbicides may be applied if warranted by site conditions as specified in the weed abatement plan. Additionally, the project would include fire breaks around the project boundary in the form of interior gravel driveways subject to County standards. The pest management plan would reduce anticipated nuisance impacts to adjacent farmland from pests inhabiting project facilities. Rodenticide and herbicide would be selected and used in a manner that minimizes impacts to protected biological species. 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 qualitative performance goal of nuisance reduction to adjacent farmland.

- (6) The project establishes internal access roads that do not exceed a maximum distance of 300 feet between lanes.
 - a. The project establishes internal access driveways that do not exceed a maximum separation distance of 300 feet from edge of driveway to edge of driveway.
- (7) The project includes a solid waste management plan for site maintenance and disposal of trash and debris.
 - a. The project would provide a solid waste management plan for site maintenance and disposal of trash and debris prior to issuance of construction permits.
- (8) The project site is located on Williamson Act or Farmland Security Zone contracted land, unless it meets the principles of compatibility under Government Code Section 51238.1(a). Otherwise, the contract is proposed for cancellation or is eligible and converts to a Solar Easement.
 - a. The project site is not located on Williamson Act or Farmland Security Zone contracted land.

STATEMENT OF FINDINGS OF CONSISTENCY:

1. LAND CONSERVATION (WILLIAMSON) ACT FINDINGS:

- A. The project site is not located within an established agricultural preserve.

2. FLOOD PLAIN FINDINGS:

- A. The site is within Other Areas Zone X as shown on the National Flood Insurance Program, Flood Insurance Rate Map (FIRM), Map Number 06031C0170C, dated June 16, 2009. There are no development restrictions associated with Other Areas Zone X since these are areas determined to be outside the 0.2 percent annual chance floodplain.

3. ENTERPRISE ZONE FINDINGS:

- A. The project site is located within the Kings County Enterprise Zone.

4. AIRPORT COMPATIBILITY ZONE FINDINGS:

- A. The project site is not located within an Airport Compatibility Zone.

5. SEPTIC SYSTEM FINDINGS:

- A. The Project site is located within an area requiring engineering for any new septic systems that are installed.

RECOMMENDATIONS:

It is recommended that the Commission approve Conditional Use Permit No. 14-03 as described above and adopt Resolution No. 14-11. Approval of this Resolution will:

1. Find that the proposed project may have significant adverse impacts on the environment; however, those impacts can be mitigated to an insignificant level by implementing the Mitigation Monitoring and Reporting Plan attached to the Planning Commission Resolution as Exhibit “A,” and approves a *Mitigated Negative Declaration*.
2. Find that the project is consistent with the *Kings County General Plan* and the *Kings County Zoning Ordinance*.
3. Approve the project with specified conditions of approval.

This permit shall become effective upon the expiration of eight (8) days following the date on which the permit was granted unless the Board of Supervisors shall act to review the decision of the Planning Commission.

For the information of the applicant, compliance with other adopted rules and regulations of any local or state regulatory agency shall be required by the Planning Commission. This includes but is not limited to the following:

KINGS COUNTY COMMUNITY DEVELOPMENT AGENCY – PLANNING DIVISION: Contact Dan Kassik of the Kings County Community Development Agency at (559) 852-2655 regarding the following requirements:

1. All proposals of the applicant shall be conditions of approval if not mentioned herein.

2. Prior to any ground disturbance, the applicant shall hire a Native American Monitor to monitor the project during all ground disturbing activities during both the construction and decommissioning phases of the project.
3. As per the Kings County Public Health Officer, *Coccidioides immitis*, the fungus that causes valley fever, a serious and potentially long-term respiratory illness, is endemic in the soils of Kings County. Construction activities that disturb soils containing the spores of the fungus can put workers and the nearby public at risk. Effective dust control must be maintained on the job site at all times in order to reduce the risk of valley fever to workers and nearby residents. More information regarding the prevention of work related valley fever is available at www.cdph.ca.gov/programs/hesis/Documents/CocciFact.pdf and <http://www.cdph.ca.gov/programs/ohb/Documents/OccCocci.pdf>. Contact the San Joaquin Valley Air Pollution Control District for more information on dust control techniques.
4. The site plan for the project is approved in concept. However, it is understood that during the actual design of the project that either of the following minor alterations to the site plan may be necessary: 1) structural alterations; and/or 2) alterations to the location of structures. Any minor alterations shall comply with the following requirements:
 - A. The site shall be developed in substantial compliance with the conceptually approved site plan. Development of the site shall be considered substantially consistent with the approved conceptual site plan if any minor structural alteration is within ten (10) percent of the square footage shown on the conceptually approved site plan or up to a 2,500 square foot increase in structural size, whichever is less, and the minor structural alteration complies with coverage standards.
 - B. A minor alteration of the location of a structure shall be considered substantially consistent with the approved conceptual site plan if the new location of the structure complies with all setback requirements for the zone district that the project site is located in.
 - C. Any minor alteration that would make it necessary to modify or change any condition of approval placed on the project would require resubmittal of the application to amend the approval of the Conditional Use Permit.
 - D. No expansion of use, regardless of size, which would increase the projected scale of operations beyond the scope and nature described in this Conditional Use Permit application, will be allowed. Any expansion that is a substantial change from the conceptually approved site plan, will require either an amendment to the approved Conditional Use Permit or a new zoning permit.
5. The development shall comply with all regulations of *Zoning Ordinance No. 269*, with particular reference to the General Agricultural (AG-20) Zone District standards contained in Article 4.
6. Pursuant to Section 1605.B.1.a.1 of the Kings County Zoning Ordinance, No solid fence, wall, hedge or shrub exceeding three (3) feet in height shall be erected, planted or maintained within a required Traffic Safety Visibility Area. Traffic Safety Visibility Area is defined as a space set aside on a lot in which all visual obstructions, such as structures, fences and plantings that inhibit visibility and thus have the potential to cause a hazard to traffic and pedestrian safety are prohibited, as follows:

- a. **Area adjacent to a driveway on any lot** - the Traffic Safety Visibility Area is that area on the street side of a diagonal line connecting points, measured from the intersection of the driveway (located on the property or adjoining parcel) and the street right of way line, twenty (20) feet along the side of the driveway and twenty (20) feet along the street side of a lot.
 - b. **On a corner lot** - the Traffic Safety Visibility Area also includes that area of a corner lot on the street side of a diagonal line connecting points, measured from the property corner where the streets intersect, set back one (1) foot for every one (1) mile per hour of the posted speed limit along each street.
7. Pursuant to Section 1606.C.1 of the *Kings County Zoning Ordinance* unless otherwise stated, the following signs are allowed as a permitted use and do not require a sign permit, site plan review or conditional use permit. All signs shall be located outside of the public right-of-way and shall not be located within a traffic safety visibility area if over three (3) feet in height. Unless a different setback is specified for a particular zone district, the minimum setback distance for all signs over three (3) feet in height shall be ten (10) feet from property lines. Signs shall be permitted only as follows in Agricultural (A) Districts:
- a. Name plates or signs, not directly illuminated, with an aggregate area of not more than forty (40) square feet pertaining to a permitted use, permitted use with site plan review or conditional use conducted on the site.
 - b. Signs exceeding forty (40) square feet in structural area and up to one-hundred-fifty (150) square feet in structural area which are incidental and pertaining to a permitted or conditional use may be permitted subject to a site plan review. Such signs may be located on the same parcel or an adjacent parcel used in conjunction with the permitted or conditional use. Signs exceeding forty (40) square feet in structural area may be illuminated and shall be thirty (30) feet from property lines adjacent to a road.
 - c. One non-illuminated on-site sign real estate sign or subdivision not exceeding thirty-two (32) square feet in structural area with copy on both sides pertaining to the sale, lease, rental or display of a structure or land per Section 1606.B.2.a.
 - d. Directional or information (other than advertising) signs not exceeding two hundred and forty (240) square feet in area located adjacent to a state highway or a county road within an area limited by points not closer than one-fourth ($\frac{1}{4}$) mile or further than three-fourths ($\frac{3}{4}$) mile from a frontage road turnoff, listing commercial establishments accessible via the frontage road, and further provided that not more than four (4) such signs shall be permitted on each side of the highway or county road.
 - e. Signs not exceeding two hundred forty (240) square feet in area located adjacent to a state highway or county road that is classified as an arterial or collector road (including such designations as urban or rural, major or minor) giving direction to or information about Kings County cities, communities, or rural service centers which are accessible by such state highways or county roads or direct routes consisting of combinations thereof, provided that such signs shall be limited to four (4) per city, community or rural service center regardless of the sign's location in this district, and further provided that such signs shall not contain information pertaining to a subdivision of land or private development, commercial establishments or quasi-public developments.
 - f. Non-illuminated temporary construction signs in accordance with Section 1606.B.2.c.
 - g. Political and Campaign Signs in accordance with Section 1606.B.3.
 - h. Placing a sign on property which is restricted by contract under the *California Land*

Conservation “Williamson” Act of 1965 shall be prohibited, except for temporary signs (pursuant to Section 1606.B.2.a, c, and d), political and campaign signs (pursuant to Section 1606.B.4), and signs incidental to a permitted use, permitted use with site plan review, or conditional use which are consistent with the *Uniform Rules for Agricultural Preserves in Kings County*.

8. Exterior lighting shall be hooded so as to be directed only on site.
9. A minimum of four (4) off-street parking spaces shall be provided and that such parking shall be installed in accordance with the *Kings County Improvement Standards*.
10. All parking areas, aisles, and driveways shall be surfaced and maintained so as to provide a durable, dustless surface. Section 303.G. and Drawing 3036 of the *Kings County Improvement Standards* requires Cutback Asphalt over four (4) inches of Decomposed Granite under the “Rural Alternative.” (Note: The Kings County Zoning Administrator hereby reserves the right to require additional improvements to the parking area and driveway if at any time in the future the decomposed granite surface deteriorates and either a dust problem is created due vehicles driving on the decomposed granite surface, or a mud problem is created due to vehicles tracking mud onto County Roads.)
11. All open and unlandscaped portions of the lot shall be maintained in good condition, free from weeds, dust, trash and debris.
12. The minimum yard requirements from property line to a structure shall be as follows:
 - A. The minimum front yard setback shall be either fifty (50) feet from the front property line or eighty feet from the center of the road, whichever is greater.
 - B. The minimum side yard setback shall be ten (10) feet from the side property line.
 - C. The minimum rear yard setback shall be ten (10) feet from the rear property line.
13. The minimum distance between a dwelling unit and another structure shall be ten (10) feet.
14. The applicant shall comply with all requirements of, and obtain any necessary permits from, the San Joaquin Valley Air Pollution Control District (SJVAPCD).
15. The applicant shall comply with all requirements of, and obtain any necessary permits from, the California Regional Water Quality Control Board (CRWQCB).
16. The applicant shall comply with all adopted rules and regulations of the Kings County Public Works Department, Fire Department, and the Environmental Health Services Division of the Health Department, and all other local and state regulatory agencies.
17. Pursuant to Section 14-38(d) of the *Kings County Code of Ordinances*, a “Notice of Disclosure and Acknowledgment of Agricultural Land Use Protection and Right to Farm Policies of the County of Kings” shall be signed, notarized, and recorded.
18. Pursuant to Section 66020(d)(1) of the *California Government Code*, the owner is hereby notified that the 90-day approval period in which the applicant may protest the imposition of fees,

dedications, reservations, or other exactions, begins on the date that Planning Commission Resolution No. 14-11 is adopted.

19. Sales or use tax may apply to business activities on the site. The applicant may seek written advice regarding the application of tax to your particular business by writing to the nearest State Board of Equalization office. For general information, please call the Board of Equalization at 1-800-400-7115.
20. Prior to the issuance of a building permit, the applicant shall submit a Soil Reclamation Plan for review and approval by Community Development Agency staff. The plan shall contain an analysis of pre-project baseline soil conditions, and shall contain specific measures to restore the soil to its pre-project condition, including removal of all fixtures, equipment, non-agricultural driveways, and restoration of compacted soil. Reclamation shall be completed within six months of the expiration of the use permit.
21. Prior to the issuance of a building permit, the applicant shall post a performance bond or similar instrument to ensure completion of the activities under the Reclamation Plan. Financial assurances for the Reclamation Plan will be reviewed every 5 years by the Kings County Community Development Agency to determine if finances are sufficient to perform reclamation of the Project. The assurance must be adjusted if, during the five year review, finances are determined to be insufficient to perform reclamation of the Project.
22. Additional annual service impact fees affecting the Kings County Fire and Sheriff departments will not be billed to the applicant. Instead, the applicant will be responsible to pay for services rendered by the two departments during times of emergency when services are provided.
23. All mitigation measures in the Initial Study/Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Plan that pertain to CUP No. 14-03 are adopted as conditions of this approval, and included in the Conditional Use Permit.
24. Within eight (8) days following the date of the decision of the Kings County Planning Commission, the decision may be appealed to the Kings County Board of Supervisors. The appeal shall be filed with the Clerk of the Board of Supervisors.
25. This Conditional Use Permit shall lapse and shall become null and void three (3) years following the date that the Conditional Use Permit became effective, unless prior to the expiration of three (3) years the proposed use has been established. A Conditional Use Permit involving construction shall lapse and shall become null and void three (3) years following the date that the Conditional Use Permit became effective, unless prior to the expiration of three (3) year a building permit is issued by the Building Official and construction is commenced and diligently pursued toward completion on the site that was subject of the Conditional Use Permit application.
26. This Conditional Use Permit may be renewed for additional periods of time, if an application (by letter) for renewal of the Conditional Use Permit is filed with the Planning Commission prior to the permit's expiration date.

OTHER AGENCY’S COMMENTS, STANDARDS, AND REGULATIONS:

The following departments and agencies have provided comments, standards, and regulations concerning the proposed project. The Planning Commission has no authority to modify, amend, or delete any of these comments, standards, and regulations but lists them here as information to the applicant. Appeals for relief of other agency’s standards and regulations must be made through that department’s or agency’s procedures, not through the Zoning Ordinance procedures. However, the applicant shall comply with all adopted rules and regulations of the Kings County Public Works Department, Fire Department, and the Environmental Health Services Division of the Health Department, and all other local and state regulatory agencies. Failure of the applicant to comply with all adopted standards and regulations of all other local and state regulatory agencies is a violation of this conditional use permit (see Condition No. 14 above) and could result in revocation of this conditional use permit.

KINGS COUNTY COMMUNITY DEVELOPMENT AGENCY - BUILDING DIVISION Contact Darren Verdegaal at the Kings County Community Development Agency - Building Division at (559) 852-2683, regarding the following comments:

1. Building permits must be obtained from the Building Division of the Kings County Community Development Agency for any structures, plumbing, electrical, or mechanical work.
2. Failure to obtain a building permit for any structure, prior to commencing construction, which requires a building permit, will result in the payment of a double fee. Payment of such double fee shall not relieve any person from fully complying with the requirements of Kings County Code of Ordinances, Chapter 5 in the execution of the work or from any other penalties prescribed therein.
3. A minimum of (2) sets of plans and calculations signed by an architect or engineer licensed to practice in the State of California shall be required for the proposed work.
4. All special inspection reports shall be provided to the Building Division prior to requesting a final inspection.
5. The applicant is responsible for contacting the Building Division to request a final inspection of the structures prior to occupying the structures and prior to startup of the operation. No building or structure shall be used or occupied until the Building Division has issued a Certificate of Occupancy.
6. All drive approaches and durable dustless surfaces shall be installed prior to the final inspection and maintained as per County Standards.
7. If the facility will have employees on-site for maintenance of the system an accessible restroom shall be provided and shall comply with Section 1115B of the *California Building Code*. This may be accomplished by either construction of a permanent structure or use of a chemical toilet with a regular maintenance schedule.
8. Pursuant to Section 1129B of the *California Building Code* one (1) van accessible parking space, allowing room for individuals in wheelchairs, on braces or crutches to get in and out of an automobile onto a level surface, suitable for wheeling and walking shall be provided. The parking space shall be 9’ x 20’ with an 8’ wide loading and unloading aisle placed on the side opposite the driver’s side. The surfacing of the parking space, loading and unloading aisle and the accessible path from the space to the entrance of the building shall be either asphalt concrete or concrete.

9. The development shall comply with all applicable *Americans with Disability's Act (ADA)* requirements, especially Section 1127B of the *California Building Code*, which states that site development and grading shall be designed to provide access to all entrances and exterior ground-floor exits, and access to normal paths of travel. The accessible route of travel shall be the most practical direct route between accessible building entrances, accessible site facilities and the accessible entrance to the site, including but not limited to access from the accessible parking space to accessible building entrances.
10. A soils report, prepared by a qualified soils engineer, shall be provided to the Building Division prior to issuance of building permits.
11. The facility shall meet the requirements of the State of California Model Water Efficient Landscape Ordinance. Landscape and irrigation plans shall be provided to the Community Development Agency for review and approval prior to building permit issuance.
12. All construction shall conform to the 2013 California Code of Regulations Title 24 which consist of the California Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, and California Energy Code, California Fire Code and California Green Building Standards Code.

KINGS COUNTY PUBLIC WORKS DEPARTMENT: Contact Mike Hawkins of the Kings County Public Works Department at (559) 852-2708 for the following comments:

1. That all requirements hereafter conform to the Kings County Improvement Standards.
2. That all other alternatives to Public Works requirements must be approved by the Kings County Public Works Department.
3. An encroachment permits shall be secured prior to any work within the County right-of-way.
4. Asphalt concrete approaches shall be provided.
5. All drainage shall be contained on-site.
6. All proposals of the applicant are conditions of approval unless otherwise mentioned.
7. Drive approaches shall be constructed at access points which contact a county road and shall be asphalt-concrete over class 2 baserock.
8. Gates at access points shall be indented per the Kings County Zoning Ordinance.
9. Perimeter fencing along county maintained roads shall be placed at 1 foot beyond the of way line. Contact Public Works for right of way information.

KINGS COUNTY FIRE DEPARTMENT: Contact Bill Lynch of the Kings County Fire Department at (559) 852-2880 for the following comments:

1. Rows of solar panels shall not exceed 300 feet in length.
2. There shall be a minimum of 4 feet of separation between rows to allow access for fire suppression personnel.
3. There shall be access roads capable of supporting heavy fire apparatus between the 300 foot sections of solar panels to allow fire apparatus access to the panels so that no portion of any panel is greater than 150 feet from fire suppression access. The access roads shall be maintained and completely surround the solar panels to allow access from any side or end. Access roads shall not be less than 20' in width and provide vertical clearance of not less than 13'6".
4. The solar field shall be kept clear of combustible weeds and debris.
5. The solar fields shall be protected to prevent public access.
6. Fire Department requires a Knox box or other approved system to store and secure keys for any fence or buildings within the property.
7. Applicant shall provide training for fire personnel to be able to interrupt electrical power safely for emergency incidents requiring fire suppression or rescue activities.
8. Architects, Engineers and Designers shall provide detailed plans for review of the project and shall meet with the Fire Marshal in a timely manner upon his request for clarification of any issues.
9. Any fire suppression systems or fire flow requirements will be dependent upon project facilities and review of the project specifications.
10. Solar fields shall comply with Kings County Zoning Ordinance 1908H and the California Fire Code.
11. Fire Department reserves the right to add additional comments or requirements depending upon the hazards involved with the project.

KINGS COUNTY HEALTH DEPARTMENT: Contact Lee Johnson of the Kings County Department of Environmental Health Services at (559) 852-2631 regarding the following comments:

1. If hazardous materials at or above threshold reporting quantities (55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of a gas) will be kept on site, the facility must file a Hazardous Materials Business Plan online at <http://cers.calepa.ca.gov> within 30 days of beginning operations. Hazardous materials are broadly defined, and include fuel, lubricants, antifreeze, motor vehicle batteries, welding gases, paints, solvents, glues, agricultural chemicals, etc. Please contact our office if you require assistance with the online registration process.
2. Any quantities of hazardous wastes generated by the facility operation must be managed in accordance with Federal, State, and local laws and regulations. Hazardous wastes cannot be

disposed of into the municipal waste stream or onsite sewage disposal system. The owner/operator must contact our office at with any questions regarding proper management and reporting of any hazardous wastes associated with this operation.

PREPARATION:

Prepared by the Kings County Community Development Agency (Dan Kassik) on October 23, 2014. Copies are available for review at the Kings County Community Development Department, Government Center, Hanford, California, or at the Kings County Clerk's Office, Government Center, Hanford, California.

Attachments to the Staff Report:

1. Comments on the IS/MND

Attachment #1

From: [Shana Brum](#)
To: [Kassik, Dan](#)
Cc: [Gemma Benton](#); [Hector Franco](#)
Subject: Re: Notice of Intent to Adopt a Mitigated Negative Declaration
Date: Tuesday, September 16, 2014 3:26:57 PM

Dear Sandy Roper,

Thank you for contacting Santa Rosa Rancheria Tachi Yokut Tribe about the proposed solar project located on the corner of 19th Ave and Jackson Ave. The Tribe is aware of several burial location and cultural resource in this area. In order to mitigate the possible effects of this project, it I see commended that a Native American Monitor be retained to monitor all ground disturbing activities associated with this project. Thank you.

Sincerely,
Shana Brum
Cultural Specialist/Arch Tech
SBrum@tachi-yokut-nsn.gov
Cell: (559)997-9919
Office: (559)924-1278 ext. 4013

> On Sep 12, 2014, at 8:44 AM, "Kassik, Dan" <Dan.Kassik@co.kings.ca.us> wrote:
>
> Environmental Document Email List Members,
>
> Attached is a Notice of Intent to Adopt a Mitigated Negative Declaration and the Proposed Initial Study/Mitigated Negative Declaration for Conditional Use Permit No. 14-03 (ImMODO Solar Lemoore). The applicant proposes to establish a 8 Megawatt (MW) photovoltaic solar energy generating facility located at 14805 19th Avenue, Lemoore, CA, Assessor's Parcel Number 024-080-036, 037 and 038.
>
> Dan Kassik, Senior Planner
> Kings County Community Development Agency
> 1400 W. Lacey Blvd., Building #6
> Hanford, California 93230
> Phone (559) 852-2655
> Fax (559) 584-8989
>
> <CUP 14-03 Final IS-MND.pdf>



**KINGS COUNTY
COMMUNITY DEVELOPMENT AGENCY
Gregory R. Gatzka, Director
PLANNING DIVISION**

Web Site: <http://www.countyofkings.com/planning/index.html>

**NOTICE OF INTENT TO ADOPT
A MITIGATED NEGATIVE DECLARATION**

NOTICE IS HEREBY GIVEN that the Kings County Community Development Agency invites public review and comment on the environmental document listed below. The public review period begins on Friday, September 12, 2014, and ends on Monday, October 13, 2014. Written comments concerning the adequacy of the document will be accepted until 5:00 P.M. on October 13, 2014, at the Kings County Community Development Agency, Kings County Government Center, Engineering Building No. 6, 1400 W. Lacey Blvd., Hanford, California, 93230. The document is posted in the County Clerk's office and is also available at the Kings County Community Development Agency. If you would like to request an electronic copy of the document then please contact Dan Kassik, with the Community Development Agency, at (559) 852-2655, or by email at dan.kassik@co.kings.ca.us

INITIAL STUDY PROPOSED AS MITIGATED NEGATIVE DECLARATION:

1. Conditional Use Permit No. 14-03 (ImMODO Solar Lemoore) – The applicant proposes to establish an 8 Megawatt (MW) photovoltaic solar energy generating facility located at 14805 19th Avenue, Lemoore, Assessor's Parcel Numbers 024-080-036, 037 & 038.

The Kings County Planning Commission will hold a public hearing to consider the environmental document for the proposed project that is listed above. The public hearing will be held on Monday, November 3, 2014 at 7:00 P.M., in the Kings County Board of Supervisors Chambers, in the Administrative Building No. 1, Kings County Government Center, 1400 W. Lacey Blvd., Hanford, California. Interested parties are invited to appear and present evidence or make statements of fact regarding the proposed projects. For more information regarding the proposed project please call Dan Kassik, of the Kings County Community Development Agency, at (559) 852-2655.

KINGS COUNTY COMMUNITY DEVELOPMENT AGENCY

Gregory R. Gatzka, Director

**KINGS COUNTY COMMUNITY
DEVELOPMENT AGENCY**

1400 WEST LACEY BOULEVARD
HANFORD, CA 93230

**Conditional Use Permit No. 14-03
for the
LEMOORE 14 PROJECT**

**Initial Study &
Mitigated Negative Declaration**

September 2014

Prepared by:



354214V1-ENV

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CHAPTER 1-INTRODUCTION

The Kings County Community Development Agency (Agency) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) for Conditional Use Permit No. 14-03 to address the environmental effects of the ImMODO California 1, LLC Solar Project (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 et.seq. The Kings County Community Development Agency is the CEQA lead agency for this proposed Project.

The proposed Project involves the construction and operation of an eight megawatt alternating current solar photovoltaic power generating facility on approximately 60.39-acres located in Kings County the proposed Project is described in detail in Chapter 2, Project Description.

Regulatory Information

An Initial Study (IS) is a document conducted by a lead agency to determine if a project may have a significant effect on the environment. In accordance with the California Code of Regulations Title 14 (Chapter 3, §15000 et seq.)-- also known as the CEQA Guidelines-- Section 15064 (a)(1) states an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant. A negative declaration may be prepared instead; if the lead agency finds that there is no substantial evidence, in light of the whole record that the project may have a significant effect on the environment. A negative declaration is a written statement describing the reasons why a proposed project, not exempt from CEQA pursuant to §15300 et seq. of Article 19 of the Guidelines, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a negative declaration shall be prepared for a project subject to CEQA when either:

- a) The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or
- b) The IS identified potentially significant effects, but:
 - (1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration and initial study is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and
 - (2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project *as revised* may have a significant effect on the environment. If revisions are adopted by the Lead Agency into the proposed project in accordance with the CEQA Guidelines Section 15070(b), a *Mitigated Negative Declaration (MND)* is prepared.

Document Format

This IS/MND contains five chapters, and five technical appendices. Chapter 1, Introduction, provides an overview of the proposed Project and the CEQA environmental documentation process. Chapter 2, Project Description, provides a detailed description of proposed Project objectives and components. Chapter 3, Impact Analysis, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the proposed Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the proposed Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 4, Mitigation Monitoring and Reporting Program (MMR&P), provides the proposed mitigation measures, completion timeline, and person/agency responsible for implementation and Chapter 5, List of Preparers, provides a list of key personnel involved in the preparation of the IS/MND.

The NRCS Custom Soil Resource Report, CalEEMod Output Files, and a Biological Reconnaissance Survey Report are provided as technical appendices at the end of this document.

Environmental impacts are separated into the following categories:

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

Less Than Significant After Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact. This category is identified when the proposed Project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (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.)

Acronyms Used in this Document

AB32	Assembly Bill 32
ACOE	United States Army Corps of Engineers
AG20	General Agriculture – 20 acre
AF	Acre Feet/Foot
APN	Assessors Parcel Number
ARB	Air Resources Board
AST	Aboveground Storage Tank
BMP	Best Management Practices
BPS	Best Performance Standards
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalOSHA	California Department of Industrial Relations
CARB	California Air Resources Board
CAAQS	California Ambient Air Quality Standards
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	U.S. Code of Federal Regulations
CH ₄	Methane
CNDDDB	California Department of Fish and Wildlife Natural Diversity Database
CNPS	California Native Plant Service
CO	Carbon Monoxide
CRHR	California Register of Historical Resources
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DOC	California Department of Conservations
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESCD	Erosion and Sediment Control Drawings
FCSSE	Five County Seismic Safety Element
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
FRA	Federal Railway Administration
FTA	Federal Transit Administration
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
GHG	Greenhouse Gas

CONDITIONAL USE PERMIT NO. 14-03 FOR THE LEMOORE 14 PROJECT

Chapter 1 - Introduction

GIS	Geographic Information System
H ₂ S	Hydrogen Sulfide
HMIS	Hazardous Materials Inventory Statement
HMMP	Hazardous Materials Management Plans
HMR	Hazardous Materials Regulations
HMRRP	Hazardous Materials Release Response Plans and Inventory Program
HSWA	Hazardous and Solid Waste Amendments
HWG	Hazardous Waste Generator
IFM	Important Farmland Maps
IS	Initial Study
IS/MND	Initial Study/Mitigated Negative Declaration
LLC	Limited Liability Corporation
MOL	Mines Online
MMRP	Mitigation Monitoring & Reporting Program
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zones
MW	Megawatt
NAAQS	National Ambient Air Quality Standards
NCP	National Contingency Plan
ND	Negative Declaration
NFIP	National Flood Insurance Program
NIOSH	National Institute of Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Administration
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
O ₃	Ozone
OMR	Office of Mine Reclamation
ONC	Office of Noise Control
OSHA	Occupational and Safety Health Act
PG&E	Pacific Gas & Electric
PHMSA	Pipeline and Hazardous Material Safety Administration
PM ₁₀	Particulate Matter less than 10 microns in diameter
PM ₂₅	Particulate Matter less than 25 microns in diameter
PPV	Peak Particle Velocity
PV	Photovoltaic
RCRA	Resource Conservation and Recovery Act
RMA	Resources Management Agency
RMS	Root Mean Squared
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Board
SAAQS	State Ambient Air Quality Standards
SARA	Superfund Amendments and Reauthorization Act

SCADA	Supervisory Control and Data Acquisition
SCE	Southern California Electric
SJVAPCD	San Joaquin Valley Air Pollution Control District
SMARA	Surface Mining and Reclamation Act
SO ₂	Sulfur Dioxide
SWRCB	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
USDA	United States Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compounds

CHAPTER 1

INTRODUCTION

CHAPTER 2-PROJECT DESCRIPTION

Project Background and Objectives

1. Project Title:

Conditional Use Permit No. 14-03 for the Lemoore 14 Project

2. Lead Agency Name and Address:

Kings County Community Development Agency
1400 W. Lacey Blvd.
Hanford, CA 93230

3. Contact Person and Phone Number:

Lead Agency Contact

Sandy Roper, Principal Planner
(559) 852-2685
Dan Kassik, Senior Planner
(559) 852-2655

CEQA Consultant

Provost & Pritchard Consulting Group
Dawn E. Marple, Project Manager
(559) 636-1166

Applicant

Dan Serber
Senior Development Specialist
ImMODO Energy Services
(559) 731-4645

Property Owner

William J. Badasci Trust
P.O. Box 216
Lemoore, CA 93245

4. Project Location:

The Project is located in northern Kings County, central California, approximately 185 miles southeast of Sacramento and 72 miles northwest of Bakersfield (see Figure 1). The Project site is located east of State Route (SR) 41 and south of SR 198 and more specifically, immediately north of Jackson Avenue and east of 19th Avenue. The Project can be found within the Lemoore, CA, United States Geological Survey (USGS) 7.5 minute quadrangle, in Section 22, Township 19 South, Range 20 East, M. D. B & M. The Project site is located on Assessor Parcel Number 024-080-036, -037 and -

038 (see Figure 2).

5. Latitude and Longitude:

The Centroid of the 3 parcels is 36°15'21.76" N 119°47'44.55" W

6. General Plan Designation:

General Agriculture 20 Acre (see Figure 3)

7. Zoning:

General Agricultural (AG20) (See Figure 4)

8. Description of Project:

Project Objectives:

The 60.39-acre Project would provide Kings County as well as the State of California with a renewable energy source that would assist the State of California in complying with the Renewables Portfolio Standard (RPS) under Senate Bill 1078, which requires that 33 percent of all electricity sold in the state to be generated from renewable energy sources by the year 2020. The applicant is proposing to construct the project to meet the following objectives:

- Provide up to a 8-MW project generating electricity through the optimization of renewable solar energy sources
- Stimulate the local economy through job creation
- Support California's efforts to reduce greenhouse gas (GHG) emissions consistent with the timeline established by California Assembly Bill 32, the Global Warming Solutions Act of 2006
- Support California's aggressive RPS goal of 33 percent renewable energy generation by 2020
- Meet obligations under a proposed Power Purchase Agreement with a utility to assist it in meeting its RPS mandate
- Develop an economically feasible and commercially financeable project
- Provide solar-generated electricity to the California Independent System Operator grid
- Provide property tax revenues to Kings County

The 8 MW Solar Generation Facility (Project) will include the installation of approximately 26,667 to 38,000 solar modules, depending on the final module selection and their corresponding size ranging generally from 240-330 watts per module. This Project will generate approximately 16,000 MWh of electricity in the first year which is enough energy to power 100% of the electricity usage of 1,800 households in Kings County (see Figure 5).

Project Components:

Solar Generator

The Applicant will use a ground-mount racking system to mount the PV modules and the preferred module structural support is a ram-post foundation using metal supports that are pile-driven into the ground to depths of 6'-14'. The racking system may be fixed or single-axis tracking. It is possible that soil conditions on some rows will require a ram-post/concrete foundation or a concrete pad.

The racking system will generally consist of arrays of 12-18 modules installed 2 rows of 6 modules approximately 12-feet tall and 20-feet long. Each array will generally have 3 ram-post supports and the array will be tilted at not more than 50 degrees in a fixed array. The maximum height of the arrays is not more than 13-feet and the ground clearance at the lowest point of the array is about 2-feet. The arrays are aligned in even length rows with the centerline of each row generally 16-26-feet apart. The clear space between rows of modules will be 10-feet to 14-feet at a minimum to provide enough space for service and cleaning vehicles.

The solar generator will consist of 500 to 750 kW groups. Electrically the modules will be connected into strings of 11-120 modules which are generally configured into 550-680 blocks which will be wired to a 500 to 750 kW inverter. The variation in number of blocks is dependent on the PV module size of which will range in size from 240 Wp to 330 Wp. As such each 500 to 750 kW group will consist of 1,667 to 2,375 modules.

Control Rooms

The Project will have 3-8 factory-built, pre-assembled, all steel, non-combustible control rooms centrally located within the solar field. The dimensions for each control room are approximately 8-10-feet wide and 22-24-feet long. Each control room will be mounted on an elevated concrete pad with dimensions of approximately 15-feet by 30-feet. Each control room will contain inverters, a step-up transformer, and switchgear. One control room will contain an electronics rack containing metering equipment, a telecommunications control box, and a security recorder. The control rooms will be climate controlled with electricity provided through a retail account with PG&E. Battery storage may be located near the main control room.

Telecommunications

The facility is expected to have a high speed communication line for required utility system controls and metering and for the on-site security and monitoring/control system. The facility would be designed and operated with proprietary Supervisory Control and Data Acquisition (SCADA) system to allow remote monitoring of facility operation and/or remote control of critical components. Within the site, the cabling required for the monitoring system would typically be installed in buried conduit, leading to a centrally located (or series of appropriately located) SCADA system electronic cabinets in the Control Room. This cabinet is rack-mounted with other electronics in the Control Room and is approximately 3-feet long x 3-feet wide x 3-feet tall. External telecommunications connections to the SCADA system cabinets may be through either wireless or hard wired connections to locally available commercial service providers.

Weather Station

A weather station will also be configured to collect meteorological data such as solar resources, temperature, humidity, precipitation, pressure, and wind direction. The meteorological instruments are mounted 10-feet high on a pole at one of the control rooms well inside the property perimeter.

Access/Interior Roads

The main gate will face onto 19th Avenue. Interior service driveways will be 18 to 20-feet wide and consist of crushed aggregate. The 10-14-foot space between the rows will be compacted and will provide service access to vehicles for maintenance, repair and cleaning. There will be no employees stationed at the site on a permanent basis.

Fencing

For public safety and security, six feet tall fencing with privacy slats and security wire will be installed around the perimeter of the proposed Project consistent with County requirements under the building permit. The fence will be constructed with a 5 to 7-inch opening at the base to allow wildlife movement through the site.

Lighting

A motion-activated security lighting system may be installed with the lights hooded and directionally aligned to interior to minimize off-site light and glare. The motion sensor will be calibrated to moving objects greater than 50 pounds. If the lights are motion-triggered, a signal would go to the off-site security service and/or to central off-site control room to remotely control multiple projects. An off-site security services and/or monitoring technician/operator will control on-site, web-based video cameras to identify the nature of the intrusion alert and respond accordingly.

Interconnection

The project will interconnect to a PG&E 12 kv distribution line which runs along 19th Avenue at 36°15'29.96"N, 119°47'55.89"W. The physical point of interconnect will be at a PG&E pole located on the southeast corner of the property. The feeds from the inverter/transformer pads will run to a switchgear and production meter at the point of ownership change at the perimeter fence line. Everything past the meter is owned by PG&E and is consider on the "utility-side" of the meter. It is expected that PG&E will add a new pole of compatible height between two existing poles for a 12 kv line tap in the PG&E right-of-way with the new pole having a disconnect switch. An interconnection application was filed with PG&E on July 3, 2014, under the utility's Wholesale Distribution Access Tariff.

Operation and Maintenance:

The solar facility will be remotely operated and require no on-site daily operating staff. Occasional service employees may be on-site for scheduled, preventive maintenance as well as unscheduled service.

Combustible vegetation on and around the proposed Project boundary will be managed, and the proposed Project will include fire breaks around the proposed Project boundary in accordance with County and/or state standards. The Applicant will also coordinate with the County and state fire officials as necessary to provide photovoltaic training to fire responders

and to construction, operational, and maintenance staff. The intent of this training will be to familiarize both responders and workers of the codes, regulations, associated hazards, and mitigation processes related to solar electricity. This training will include techniques for fire suppression of PV systems.

Primary water use by the proposed Project will be for solar module washing. The water will be provided by a third party from an off-site location and delivered by water trucks. Module washing is expected to require approximately 16,000 gallons (0.05 AF) per year will be used for the four times a year cleaning.

Construction

The Project will require a County Building Permit and the construction period is anticipated to be completed within 36 months of approval of the Conditional Use Permit. There will be two phases, each expected to be approximately five months each.

**Table 1
 Construction Phases**

	Phase 1	Phase 2
Project Size MW _{AC}	6	2
Construction Period	5 months	5 months
Operational On/Before	4th Quarter, 2015	4th Quarter, 2018

Each construction phase is expected to have the following stages and general durations:

**Table 2
 Construction Stage and Length**

Stage	Length
Site preparation including grading fencing underground trenching (Phase 1 only).	One month duration.
Installation of PV structures, panels and control room equipment.	Three month duration.
System testing, commissioning, interconnection and clean up.	One month duration.

Construction equipment will include the use of graders, compacters, trenchers, backhoes, forklifts, pile drivers, skid steers, front end loaders, 5-kW Generators, 20-kW Generators, water trucks, and materials and equipment hauling trucks.

General hours during the construction phase will be conducted during day light hours, Monday through Friday, excluding holidays. The proposed Project construction will also include the installation of the PV panels and control rooms. Post construction activities will include site system testing, commissioning and site clean-up. The types of construction equipment and duration of each construction stage are detailed in Table 3.

**Table 3
 Proposed Project Construction Equipment**

	No. Units	Duration Months	Period
Site preparation, grading, fencing, trenching		1	1 month
Water Truck 2,500 gal	1	1	
Grader	1	1	
Compactor	2	1	
Trencher	2	1	
Pick-up Truck	2	1	
5-kW Generator	2	1	
Equipment Transport Trucks (Delivery)	1	0.5	
Flat-Bed Trucks (Freight, Delivery)	2	3	
Installation PV structure, panels and control room equipment			3 months
Water Truck 2,500 gal	1	3	
Compactor	1	3	
Trencher	1	3	
Backhoe	2	3	
Skid Steers	2	3	
Forklifts	2	3	
Front-End Loaders	1	3	
Pile Driver	2	3	
20-Ton Dump Truck (Gravel Delivery)	1	0.5	
5-Cubic Yard Dump Truck	1	3	
5-kW Generator	2	3	
20-kW Generator	2	3	
Ready-Mix Trucks (Concrete Delivery)	1	0.5	
Flat-Bed Trucks (Freight, Delivery)	2	3	
Pick-Up Trucks	2	3	
Equipment Transport Trucks (Delivery)	1	0.5	
System testing, commissioning, clean-up			1 month
Water Truck 2,500 gal	1	1	
5-Cubic Yard Dump Truck	2	1	
Front-End Loaders	1	1	
Forklifts	1	1	
Backhoe	1	1	
5-kW Generator	1	1	
20-kW Generator	1	1	
Equipment Transport Trucks (Delivery)	1	0.5	
Pick-Up Trucks	2	1	

It is anticipated that proposed Project construction will require 30-45 construction workers. Approximately 10 daily construction equipment delivery trucks are anticipated and 37 construction worker trips per day are anticipated during the ten months of construction, totaling an average of 95 construction vehicle round trips per day.

Construction will require temporary staging and storage areas for the proposed Project materials and equipment. The materials staging and storage will be located onsite in areas that will not be used for modules. Approximately 3.00 acre-feet of water will be needed for dust control during the construction period which equates to approximately 250 gallons per acre per day.

Only non-hazardous waste will be generated during proposed Project construction. The following wastes are anticipated: vegetative debris from site clearing, common household trash, cardboard, wood pallets, copper wire, scrap metal and wood wire spools most of which will be recycled. Although proposed Project construction is not expected to generate hazardous waste, field equipment used during construction has the potential to contain various hazardous materials such as diesel fuel, hydraulic oil, grease, solvents, adhesives, paints, and other petroleum-based products. These items will be separated, placed in secure bins or drums, and removed from the proposed Project site for disposal consistent with applicable local and state regulations.

9. Surrounding Land Uses and Setting:

Kings County is located in the south-central portion of the Central Valley and is 1,391 square miles in size. The Central Valley is a large, asymmetrical, northwestwardly-trending, structural trough formed between the uplands of the California Coast Ranges to the west and the Sierra Nevada to the east. The Central Valley is over 400 miles long and approximately 50 to 60 miles wide in area. The Valley is subdivided into the Sacramento Valley (north of the Sacramento-San Joaquin Delta) and the San Joaquin Valley (south of the Delta). The southern part of the Valley (including most of Kings County) internally drains into the Tulare Lake Bed, with flows derived from the distributaries of the Kings, Tule, and Kaweah rivers. Cross Creek is the lower reaches of the Kaweah River within Kings County. North of the Kings River, runoff is directed into the San Joaquin River, which flows northward¹.

The proposed Project is just south of the City of Lemoore. It is surrounded by vacant land, agricultural fields, and a private water skiing park. The Project site itself is currently a vacant lot (See Figure 2)

¹ 2035 Kings County General Plan EIR (SCH#2008121020). Page 3-1.

10. Other Public Agencies Whose Approval May Be Required:

Discretionary approvals that may be required:

- State Water Resources Control Board – NPDES Construction General Permit
- Regional Water Quality Control Board, Central Valley Region – Waste Discharge Requirements
- San Joaquin Valley Air Pollution Control District – rules and regulations (Regulation VIII, Rule 9510, Rule 4641)
- California Public Utilities Commission – approval for utility upgrades (not anticipated to be necessary)

Ministerial approvals and agreements that may be required:

- Kings County – Franchise Route Agreement
- Kings County – building permits

Figure 1 - Regional Location

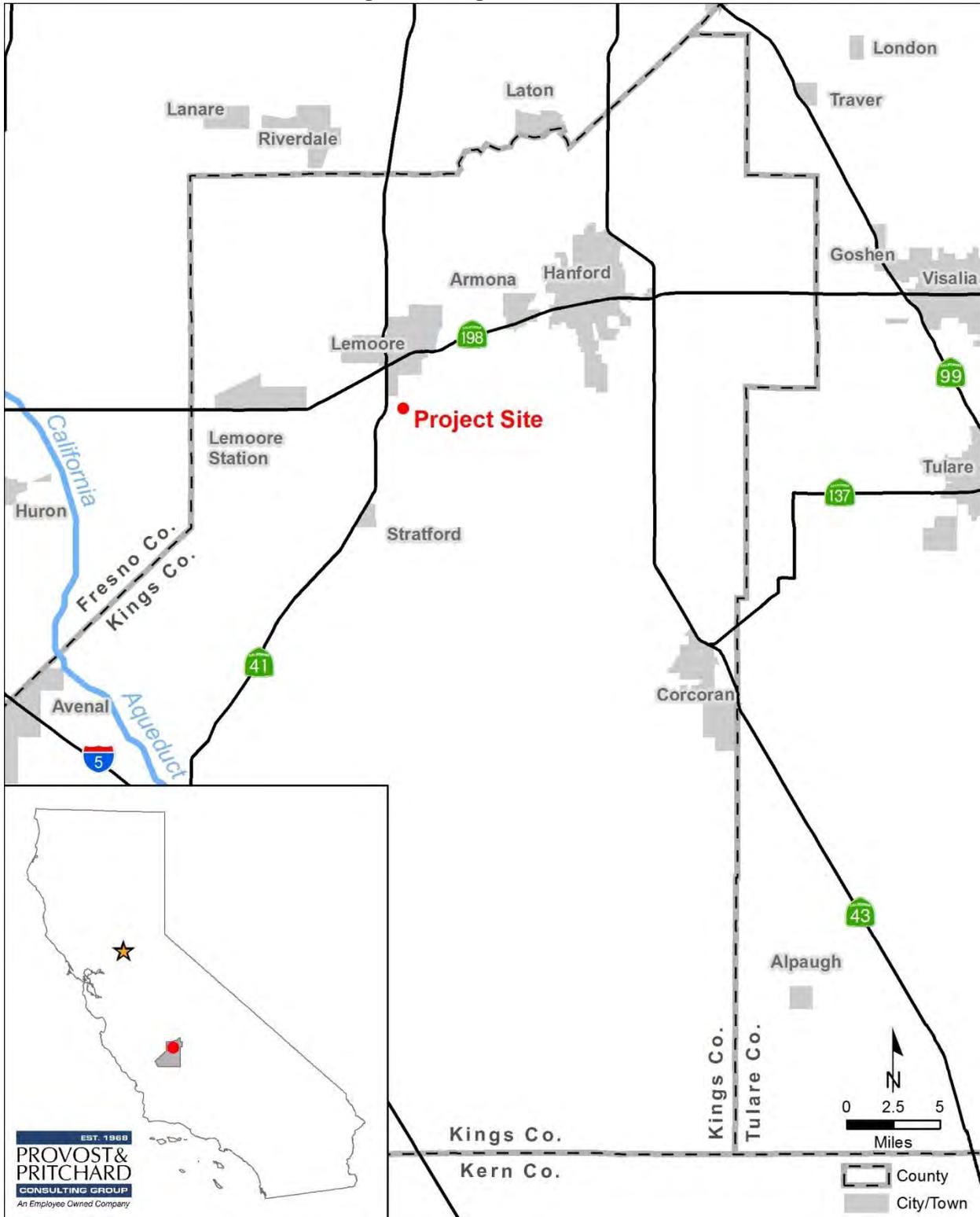


Figure 2 – Aerial Map

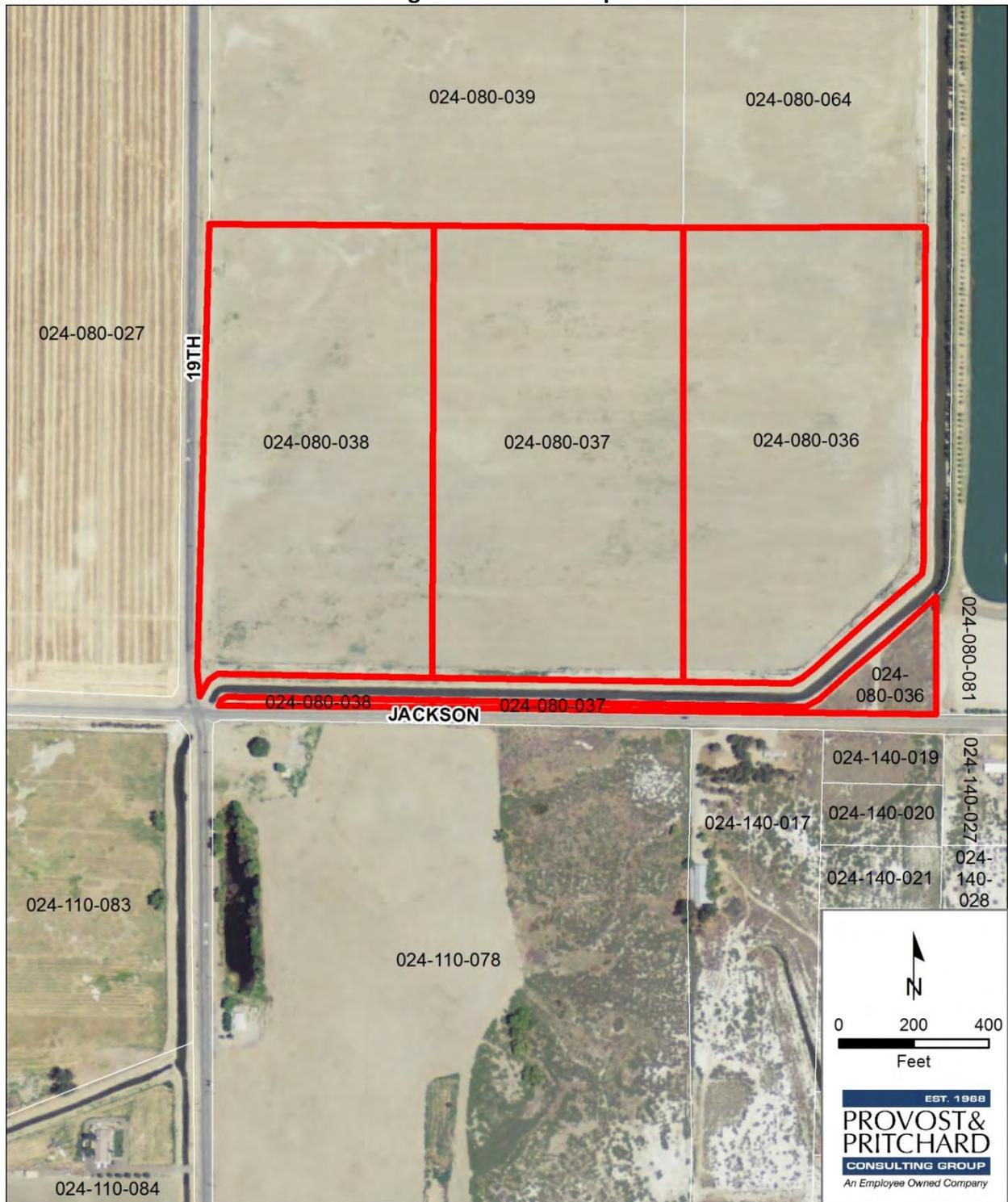


Figure 3 - General Plan Designation



Figure 4 – Zoning

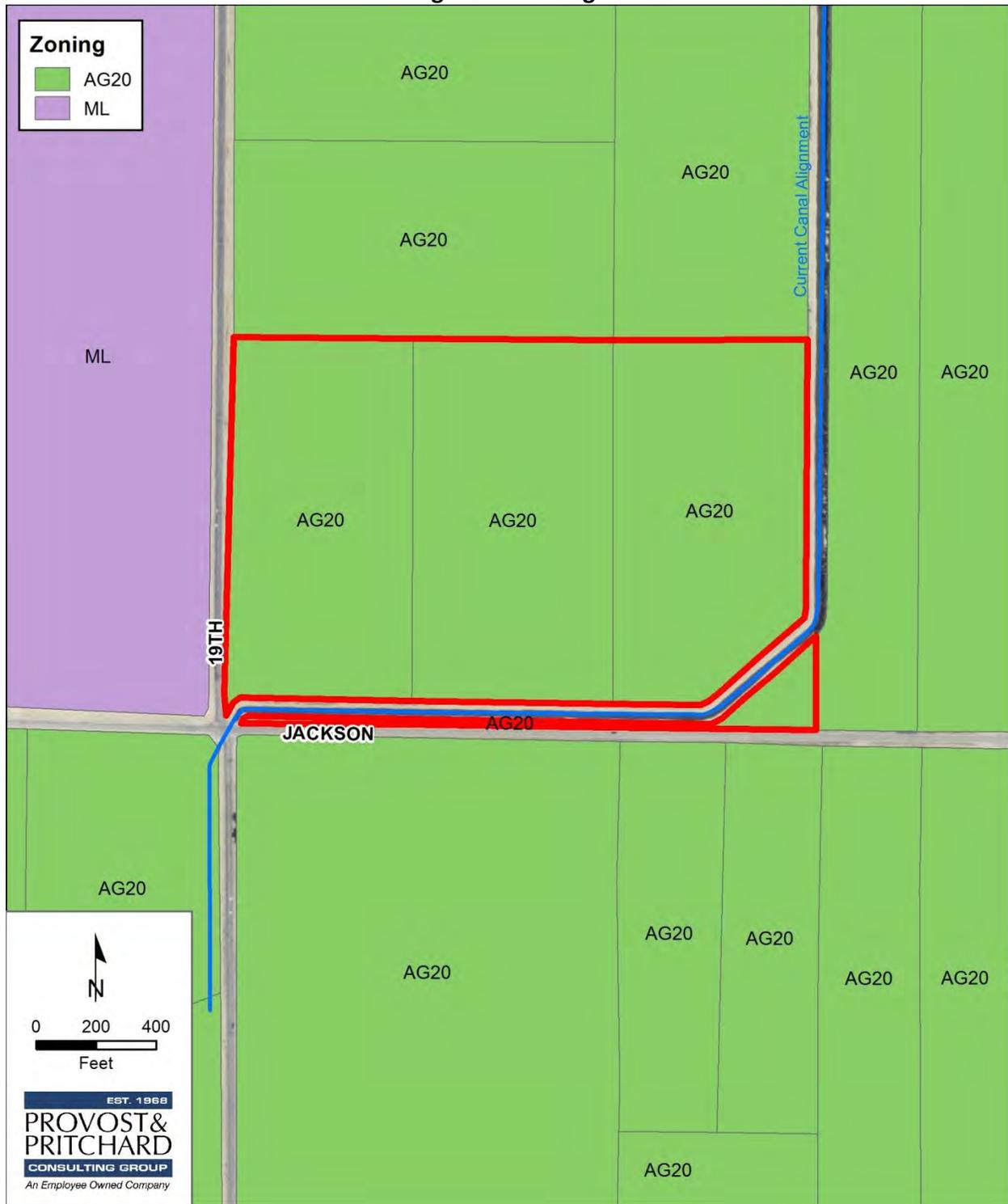


Figure 5 – Site Plan



ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and subsequent discussion on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of significance |

DETERMINATION: (To be completed by the Lead Agency)

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 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL 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

DAN KASSIK

Printed name

Date

9/11/14

For

CHAPTER 2

PROJECT DESCRIPTION

CHAPTER 3-IMPACT ANALYSIS

I. AESTHETICS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

Agricultural land within Kings County is the predominant open space landscape, representing approximately 91 percent of all unincorporated land within the County¹. The Kings River is the closest scenic resource to the Project site and is approximately 3.07 miles to the west.

In the vicinity of the Project site are local roads, other agricultural and grazing fields, a private water skiing park, rural residences, the City of Lemoore and the Lemoore Naval Air Base. The Project site is disturbed agriculturally-zoned land with the east boundary of the property next to a private water skiing lake. The parcel is currently vacant and has been used for soil excavation. The site is relatively flat with no remarkable elevation contours or geologic features.

There site is surrounded by vacant and agricultural land to the north, west and south. There is also a canal that runs along the east side of the site and cuts across the southeast corner and then along the southern side of the proposed Project site.

¹ 2035 Kings County General Plan, 2010 (SCH#2008121020)

Regulatory Setting

Federal

Aesthetic resources are protected by several federal regulations, none of which are relevant to this project because it will not be located on lands administered by a federal agency, and the project applicant is not requesting federal funding or a federal permit.

State

Nighttime Sky – Title 24 Outdoor Lighting Standards: The Energy Commission adopted changes to Title 24, Parts 1 and 6, Building Energy Efficiency Standards (Standards), on November 5, 2003. These Standards become effective on October 1, 2005. Included in the changes to the Standards are new requirements for outdoor lighting. The requirements vary according to which “Lighting Zone” the equipment is in. The Standards contain lighting power allowances for newly installed equipment and specific alterations that are dependent on which Lighting Zone the project is located in. Existing outdoor lighting systems are not required to meet these lighting power allowances. However, alterations that increase the connected load, or replace more than 50% of the existing luminaries, for each outdoor lighting application that is regulated by the Standards, must meet the lighting power allowances for newly installed equipment.

An important part of the Standards is to base the lighting power that is allowed on how bright the surrounding conditions are. The eyes adapt to darker surrounding conditions, and less light is needed to properly see; when the surrounding conditions get brighter, more light is needed to see. The least power is allowed in Lighting Zone 1 and increasingly more power is allowed in Lighting Zones 2, 3, and 4.

The Energy Commission defines the boundaries of Lighting Zones based on U.S. Census Bureau boundaries for urban and rural areas as well as the legal boundaries of wilderness and park areas (see Standards Table 10-114-A). By default, government designated parks, recreation areas and wildlife preserves are Lighting Zone 1; rural areas are Lighting Zone 2; and urban areas are Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government². The proposed Project site is located in a rural area as designated by the U.S. Census Bureau and is therefore in Lighting Zone 2.

California Scenic Highway Program: The Scenic Highway Program allows county and city governments to apply to the California Department of Transportation (Caltrans) to establish a scenic corridor protection program and was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263.

Local

2035 Kings County General Plan: Scenic resources, as designated by the County, primarily include the Coast Ranges to the southwest, with formations of the Chalk Buttes-Reef Ridge portion of the

² California Department of Energy. Title 24 Standards Table 10-114-, Lighting Zone Characteristics and Rules for Amendments by Local Jurisdictions. http://www.energy.ca.gov/title24/2005standards/outdoor_lighting/2004-09-30_LIGHTING_ZONES.PDF. Site accessed April 2012.

Kreyenhagen Hills, the Pyramid Hills, Cottonwood Pass, and Sunflower Valley. Other scenic resources include the various ridgelines located west of the County in adjacent Fresno County, which are visible along State Route 41 from the northern county line to Kettleman City.

As one of the agricultural Counties in the Central San Joaquin Valley, Kings County agricultural land serves a significant role in the County's agricultural based economy, and production of food and fiber for the rest of the Country. In addition to their economic value and commodity production, the vast stretches of green field crops, orchards and vineyards are also valued for their scenic beauty and representation of Kings County's identity.

General Plan goals, objectives, and policies pertaining to aesthetics:

LU Policy D1.3.4: Preserve the existing nighttime environment by limiting the illumination of areas surrounding new development. New lighting that is part of residential, commercial, industrial, or recreational development shall be oriented away from sensitive uses, and should be hooded, shielded, and located to direct light pools downward and prevent glare.

RC OBJECTIVE D3.1: Ensure that, in development decisions affecting riparian environments, the conservation of fish and wildlife habitat and the protection of scenic qualities are balanced with other purposes representing basic health, safety, and economic needs.

OS GOAL B1: Maintain and protect the scenic beauty of Kings County.

OS OBJECTIVE B1.1: Protect and enhance views from roadways which cross scenic areas or serve as scenic entranceways to cities and communities.

OS Policy B1.1.1: Coordinate with the Kings County Association of Governments to explore designation of State Route 41, between State Route 33 and the Kern County line, as an Official State Scenic Highway through the Caltrans Transportation Enhancement program.

OS OBJECTIVE B1.2 Preserve roadside landscapes which have high visual quality and contribute to the local environment.

OS Policy B1.2.1: Review new development and utility projects for compatibility and potential for impacting scenic view sheds along highly traveled scenic routes.

OS OBJECTIVE B1.3: Protect the scenic qualities of human-made and natural landscapes and prominent view sheds.

OS Policy B1.3.1: Require new development to be designed so that it does not significantly impact or block views of Kings County's natural landscape or other important scenic features. Discretionary permit applications will be evaluated against this requirement as part of the development review process. New developments may be required, as appropriate to:

- Minimize obstruction of views from public lands and rights-of-way.

- Reduce visual prominence by keeping development and structures below ridgelines.
- Limit the impact of new roadways and grading on natural settings. Such limits shall be within design safety guidelines.

OS Policy B1.3.2: Protect the visual access to Kings River and other prominent watercourses by locating and designing new development to minimize visual impacts and obstruction of views of scenic watercourses from public lands and rights-of-way.

OS GOAL C1: Preserve the visual identities of Community Districts by maintaining open space separations between urban areas.

OS OBJECTIVE C1.1: Preserve open spaces, maintain rural character, and limit development in community separator areas.

OS Policy C1.1.1: Preserve the agricultural open space buffer between the Community of Armona and City of Hanford to maintain community separation between Lacey Boulevard and Front Street along the west side of 13th Avenue.

OS Policy C1.1.2: Preserve the Open Space land use buffer around the Armona Community Services District waste water treatment facility to include territory between 13th and 14th Avenues, and north of Houston Avenue.

OS Policy C1.1.3: Preserve the agricultural open space buffer between the Community of Armona and City of Lemoore to maintain community separation between State Route 198 and Hanford Armona Road along the east side of 15th Avenue.

Kings County Zoning Ordinance: The Kings County Zoning Ordinance establishes setback, parking and sign standards, building height limits, and building densities. Article 19 of the Kings County Zoning Ordinance includes the guidelines for permits for conditional uses, which allows the planning commission to make a finding that a proposed development is in conformity with the intent and provisions of the ordinance and as a guide for the issuance of building permits. Permits for conditional uses are also intended to protect the public welfare by ensuring that there would be no adverse effects of a project on surrounding property. It applies to any use listed within a particular zoning district as a conditional use subject to planning commission approval. It includes considerations relative to neighborhood compatibility, setbacks, building height, location of service, landscaping, fences and walls, views and obstructions, signs, and lighting. Specifically, permits for conditional uses ensure that proposed lighting is so arranged as to reflect the light away from adjoining properties. Article 19, Section 1908.H of the Kings County Zoning Ordinance contains eight findings that are required to be made before granting a conditional use permit for a solar photovoltaic electrical facility for commercial sale and distribution of electrical power. Article 4, Section 402.D.21 of the Kings County Zoning Ordinance lists solar photovoltaic electrical generating facilities that commercially produce power for sale as a conditional use in the General Agricultural 20 (AG-20) zone district. Section 402.D.21 requires solar photovoltaic electrical generating facilities that commercially produce power for sale to comply with all local, regional, State, and Federal regulations. Article 4, Section 402.B.11 of the Kings County Zoning Ordinance lists public utility and public service structures including electric transmission as a permitted use in the General Agricultural -20 (AG-20) zone district that does not require any type of zoning permit.

IMPACT ASSESSMENT

I-a) Have a substantial adverse effect on a scenic vista?

No Impact. The predominant open space landscape in the Project area is agricultural use. The site is flat and there are no designated scenic resources or scenic vistas within the proposed Project vicinity. In addition, there are no designated scenic vistas within the County. Therefore, there will be no impact.

I-b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The Scenic Highway Program protects and enhances California's natural scenic beauty by allowing county and city governments to apply to the California Department of Transportation (CalTrans) to establish a scenic corridor protection program. According to CalTrans, there is one eligible state scenic highway located in Kings County: State Route 41; however this scenic highway segments is located approximately 28 miles southwest of the Project site. As there are currently no designated scenic highways in the County and due to the distance of the eligible Scenic Highways, there would be no impact³.

I-c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. The proposed Project site is currently a fallow field, surrounded predominately by agricultural use. The proposed Project will modify the existing character of the 60.39 acre subject site through the conversion of vacant fields, to a solar energy generation facility. The solar panel modules will be a maximum of 13 feet high and inverter station enclosures will be located away from the edges of the site separated by an 18-foot wide gravel access road. A 6- 8-foot tall chain link fence will surround the site, limiting visibility of the facility from passing vehicles and the adjacent water skiing park. The fence will be constructed with a five to seven inch opening at the base to allow wildlife movement through the site. Construction activities will occur in two phases over 36 months and will be visible from the adjacent roadsides for the first 2-3 weeks until the perimeter fence is constructed and the vinyl lath privacy barrier is installed. Due to the low heights of the proposed Project features and Project fencing, the Project would not degrade the visual quality of the site. Any impacts would be less than significant.

I-d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The photovoltaic panels will have a maximum height of 13-feet from ground level and the entire site will be surrounded by six foot fencing with security wire, consistent with County requirements under the building permit. The photovoltaic panels are designed to be light-absorbing and will have an anti-reflective coating to reduce the reflectivity to less than that of water or glass⁴. The Project will include on-site lighting for safety, security, and emergency purposes. The lighting will be hooded and directed down to ensure that the lighting will only be visible from the ground. Any impact from the proposed Project to day or night-time glare will be less than significant.

³ 2035 Kings County General Plan EIR, Section 4.1 Aesthetics

⁴ SunPower. 2009. SunPower Solar Module Glare and Reflectance. Technical Notification. September 29, 2009.

II. AGRICULTURE AND FOREST 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 Dept. 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:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

In 2010, Kings County was ranked 9th among California counties in agricultural production. The County is ranked 1st among California counties in cotton lint and cotton seed production; 2nd in the production of processing tomatoes; 3rd in the production of apricots and nectarines; and is ranked 4th among California counties in the production of the following commodities: milk and cream, plums, silage, turkeys, and wheat⁵.

A review of the “Important Farmlands” mapping by the California Department of Conservation’s (DOC’s) Farmland Mapping and Monitoring Program (FMMP) shows that the proposed Project site is designated as Grazing Land. The FMMP provides statistics on conversion of farmland to nonagricultural uses for Kings County, where the project site is located. Of the total land area that was inventoried (890,784 acres), in 2006, Kings County had approximately 594,484 acres of Important Farmlands (including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance) and an additional 243,183 acres of grazing land. The remaining 53,117 acres of land were Urban and Built-up Land, Other Land, and Water Area. In the period between 2004 and 2006, Important Farmlands had shown a net decrease of 12,677 acres (2.1 percent) within the County⁶. Pursuant to Kings County’s Priority Agricultural Land Model⁷, the Project site is identified as being within a designated classification of Very-Low Priority Agricultural Land.

Historically, land use at the Project site has been agricultural; however, it is now vacant. The Project site is located in the General Agricultural (AG-20) zone district and land adjacent to the site is vacant. Agricultural lands are located to the north, south, east and west of the Project site. The City of Lemoore is west of the Project site, on the west side of 19th Avenue. Property in the vicinity is located in the AG-20 and LI-Light Industrial zone districts. There is a private water skiing lake to the east, that is also zoned AG20. The Santa Rosa Rancheria Cemetery is located south of the Project site on the east side of 19th Avenue, approximately ¼ mile south of Jackson Avenue. No forest or timber land is present at the Project site or in the Project vicinity.

Regulatory Setting

Federal

Farmland Protection Policy Act: The Natural Resources Conservation Service, a federal agency within the U.S. Department of Agriculture, is the agency primarily responsible for implementation of the Farmland Protection Policy Act (FPPA). The FPPA was enacted after the 1981 Congressional report, Compact Cities: Energy-Saving Strategies for the Eighties indicated that a great deal of urban sprawl was the result of programs funded by the federal government. The purpose of the FPPA is to minimize federal programs’ contribution to the conversion of farmland to non-agricultural uses by ensuring that federal programs are administered in a manner that is compatible with state, local, and private programs designed to protect farmland. Federal agencies are required to develop and review their policies and procure to implement the FPPA every two years⁸.

⁵ Kings County Department of Agriculture, 2011

⁶ California Department of Conservation, 2006 - http://redirect.conservation.ca.gov/dlrp/fmmp/county_info_results.asp

⁷ 2035 Kings County General Plan, Resource Conservation Element, Figure RC-13

⁸ USDA, Natural Resource Conservation Service, 2011

State

California Environmental Quality Act (CEQA) Definition of Agricultural Lands: Public Resources Code Section 21060.1 defines “agricultural land” for the purposes of assessing environmental impacts using the FMMP. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use changes throughout California.

California Department of Conservation, Division of Land Resource Protection: The California Department of Conservation (DOC) applies the Natural Resources Conservation Service (NRCS) soil classifications to identify agricultural lands, and these agricultural designations are used in planning for the present and future of California’s agricultural land resources. Pursuant to the DOC’s FMMP, these designated agricultural lands are included in the Important Farmland Maps (IFM) used in planning for the present and future of California’s agricultural land resources. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use changes throughout California. The DOC has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding classifications.

The list below provides a comprehensive description of all the categories mapped by the DOC. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland is referred to as Farmland⁹.

- Prime Farmland. Farmland that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Farmland of Statewide Importance. Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Unique Farmland. Farmland of lesser quality soils used for the production of the State’s leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- Farmland of Local Importance. Land of importance to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee.
- Grazing Land. Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.

⁹ California Department of Conservation. FMMP – Important Farmland Map Categories. http://www.consrv.ca.gov/dlrp/fmmp/mccu/Pages/map_categories.aspx. Site accessed August 2013.

- Urban and Built-up Land. Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- Other Land. Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

California Land Conservation Act (Williamson Act): State regulations regarding Williamson Act are not relevant to the proposed project because the Project site is not under a Williamson Act contract.

Forestry Resources: State regulations regarding forestry resources are not relevant to the proposed project because no forestry resources exist at the project site.

Local

2035 Kings County General Plan: The Resource Conservation Element of the 2035 Kings County General Plan describes how agricultural resources continue to remain one of the highest valued assets within Kings County. Since 1969, the County has implemented several programs, ordinances, and policies to sustain agriculture. Recently, Kings County has developed the “Priority Agricultural Land Model” by using geographic information system (GIS) data and other relevant information resources to evaluate farmland resources throughout the County. The model established a “highest to lowest” priority designation of all agricultural growing areas¹⁰.

Kings County Zoning Ordinance: The Kings County Zoning Ordinance establishes the basic regulations under which land within the county unincorporated areas is developed. This includes allowable or conditional uses, building setback requirements, and development standards. Pursuant to State law, the zoning ordinance must be consistent with the Kings County General Plan. The basic intent of the Kings County Zoning Ordinance is to preserve, promote and protect the public health, safety, comfort, convenience, prosperity and general welfare via the orderly regulation of land uses throughout the unincorporated area of the County.

Article 19: On March 27, 2012, the Kings County Board of Supervisors adopted Resolution No. 12-016, providing that when an application is submitted for a solar photovoltaic electrical facility for commercial sale and distribution of electrical power, the following findings shall be made before granting a conditional use permit:

- The proposed site is located in an area designated as either “Very Low Priority,” “Low Priority,” or “Low-Medium Priority” land according to Figure RC-13 Priority Agricultural Land¹¹. “Medium Priority” land may be considered when comparable agricultural operations are integrated, the standard mitigation requirement is applied, or combination thereof.
- The proposed site is located within one mile of an existing 60 KV or higher utility electrical line.

¹⁰ 2035 Kings County General Plan, Resource Conservation Element. Page RC-19

¹¹ 2035 Kings County General Plan, Resource Conservation Element, Page RC-20

- Agricultural mitigation is 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 that coincides with 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 project includes 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.
- The project includes a pest management plan and weed abatement plan to protect adjacent farmland from nuisances and disruption.
- The project establishes internal access roads that do not exceed a maximum distance of 300 feet between lanes.
- The project includes a solid waste management plan for site maintenance and disposal of trash and debris.
- The project site is not located on Williamson Act or Farmland Security Zone contracted land, unless it meets the principles of compatibility under Government Code Section 51238.1.(a). Otherwise, the contract is proposed for cancellation or is eligible and converts to a Solar Easement.

Zoning Districts

General Agriculture-20 District (AG-20)

The purpose of the AG-20 zone is to designate areas suitable for extensive or intensive agricultural uses, in rural areas generally north of Kansas Avenue where farm sizes have historically been smaller than in other areas of the county. Permitted land uses include agriculture, residential uses (one-family dwelling per legal parcel), agricultural commercial uses, public utility and service structures, institutional uses, and miscellaneous accessory structures related to permitted uses. Solar photovoltaic electrical generating facilities are allowable with the approval of a Conditional Use Permit (CUP).

IMPACT ASSESSMENT

II-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?

No Impact. The Department of Conservation (DOC), Farmland Mapping and Monitoring Program (FMMP) designates the entire Project site as Grazing Land. Implementation of the proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as determined by the FMMP. Therefore, there would be no impact.

II-b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The proposed Project site is located just southeast of the City of Lemoore within Kings County. Currently, the Project site is designated as General Agriculture 20 acre and is zoned General Agricultural (AG-20). The parcels surrounding the Project site are all zoned AG-20, with exception of APN 024-080-027, located to the west of the site on the north west corner of 19th Avenue and Jackson, which is designated as Light Industrial (ML) by the City of Lemoore.

The proposed Project site is currently zoned AG-20. Solar generation facilities producing power for sale are consistent with the AG-20 zone district through the conditional use permit process. Specifically, Kings County Zoning Ordinance 269.69, Section 402.D.21, states that “wind and solar photovoltaic electrical generating facilities that commercially produce power for sale, which comply with all local, regional, State, and Federal regulations” may be permitted in accordance with the provisions of Article 19 on land zoned AG-20, with Planning Commission approval (see Section X, *Land Use and Planning*, of this IS/MND for a detailed discussion regarding the project’s compatibility with the CUP findings set forth in Article 1908.H). With approval of a conditional use permit, this project would be consistent with the site’s existing agricultural zoning designation.

The proposed Project is not on land under a Williamson Act contract (see Figure 6). There is no conflict with the existing zoning as it is an allowable conditional use under the existing AG-20 zone district. Therefore, there would be no impacts to any Williamson Act Contract nor will there be any zoning conflicts.

II-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))?

No Impact. No forest or timberland is located on or near the Project. There will be no impact.

II-d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No forest land is on or near the Project site. There would be no impact.

II-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?

Less than Significant with Mitigation Incorporated. As discussed above in Impact II (a), the proposed Project would result in the long-term use of approximately 60.39 acres of Grazing Land for solar energy development, during the life of the Project. The proposed solar use is consistent with the 2035 Kings County General Plan and the Kings County Zoning Ordinance agricultural designations, as shown in Impact II (b). The use is also considered compatible with surrounding agricultural uses because the surrounding property is also zoned AG-20.

Unlike urban development, the proposed Project will not encourage more development and will not interfere with any existing neighboring farming activities. Implementation of the proposed Project would not result in urban development or proliferation of solar projects and therefore would not cause adjacent lands to be removed from agricultural use.

Construction of the solar generation facility has the potential to affect the condition of onsite soils and may impact the post Project agricultural use. Therefore, as described in the following mitigation measures, prior to the issuance of building permits, the applicant will be required to submit a soil reclamation plan and financial assurances to ensure that the soil reclamation plan is carried out.

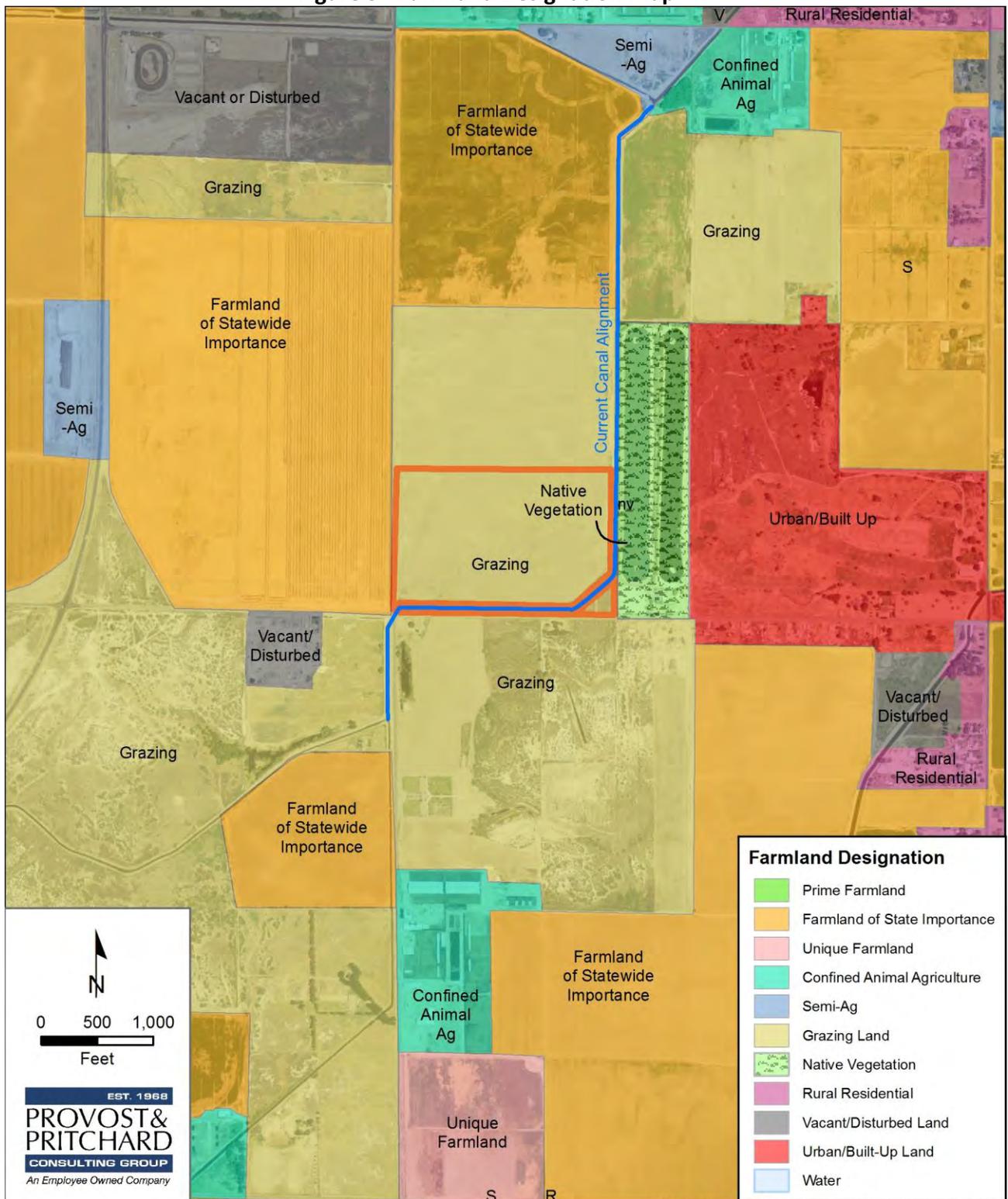
Mitigation Measures

AG-1: Prior to the issuance of a building permit, the applicant shall submit a Soil Reclamation Plan (Plan) for restoration of the Project site to its pre-project condition, for review and approval by the Planning Division of the Kings County Community Development Agency staff. The Plan shall contain an analysis of pre-project baseline soil conditions at the solar generation facility, and shall contain specific measures to restore the soil to its pre-project condition at the end of the Solar Facility's useful life, including removal of all project fixtures, equipment, and non agricultural driveways, as well as restoration of compacted soil. General preconstruction conditions of the project site shall be photographically documented by the applicant prior to the start of construction of the project. All driveways and other areas compacted during original construction or by equipment used in the decommissioning would be tilled to restore the sub-grade material to a density and depth consistent with its pre-project condition. 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 weed-free mulch spread shall be applied, as needed, to stabilize the soil until germination occurs and young plants establish to facilitate moisture retention in the soil. Reclamation would return the site to the conditions equivalent to those prior to construction and operation of the project. Whether the project area has been restored to pre-construction conditions would be assessed by Kings County staff six months after the initial seeding has occurred. Additional seedings and applications of weed free mulch shall be applied to areas of the project site that have been determined to be unsuccessfully reclaimed (e.g., restored to pre-construction conditions) after six months, until the entire project area has been restored to equivalent conditions prior to construction and operation of the project. All waste shall be disposed of in compliance with applicable law. Waste would go to the Kings Waste and Recycling Authority's Materials Recovery Facility in Hanford, where recyclable materials would be removed. All remaining waste would then go to the B-17 Landfill Unit at the Chemical Waste Management Kettleman Hills Facility. The B-17 Landfill unit has an approved capacity of 18.4 million cubic yards. The site capacity used as of March 2012 was 896,171 cubic yards. The site capacity remaining as of March 2012 was 17.5 million cubic yards. Conditional Use Permit No. 04-01, which approved a new non-hazardous-waste landfill designated as Landfill Unit B-17, was approved on May 30, 2006, when the Planning Commission adopted Resolution No. 06-05. The estimated closure date is 2052, depending on actual fill rate. If this facility is not available, another equivalent will be utilized. All waste associated with decommissioning will be disposed of or recycled in accordance with applicable laws. Additionally, the Soil Reclamation Plan shall discuss the retention of any surface water rights. The applicant shall verify the completion of reclamation within 18 months after the solar facility has ceased operating, which would be 12 months after the expiration of the Project use permit, with Planning Division staff. (Please note that Section 2503.05 of the Kings County Zoning Ordinance defines an Abandoned Use as a business or other use which has discontinued operations and/or vacated the site, or abandoned the use, for more than six (6) months.)

AG-2: Prior to the issuance of a building permit, the applicant shall either post a performance or cash bond, submit a Certificate of Deposit, or submit a letter of credit to ensure completion of the activities under the Soil Reclamation Plan. Every 5 years the Applicant shall submit an updated Engineer's Cost Estimate for financial assurances for the Reclamation Plan, which will be reviewed every 5 years by the Kings County Community Development Agency to determine if finances are sufficient to perform reclamation of the project. The assurance must be adjusted if, during the five-year review, finances are determined to be insufficient to perform reclamation of the project.

The implementation of these mitigation measures would reduce the environmental impact to a less than significant level.

Figure 5 - Farmland Designation Map



2012 Farmland Mapping and Monitoring Program

III. AIR QUALITY

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

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

Climate

The climate of the San Joaquin Valley is characterized by long, hot summers and stagnant, foggy, winters. Precipitation is low and temperature inversions are common. These characteristics are conducive to the formation and retention of air pollutants. These characteristics are in part influenced by the surrounding mountains which intercept precipitation and also act as a barrier to the passage of cold air and air pollutants.

The Project lies within the San Joaquin Valley Air Basin, which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents within that air basin. Areas are classified under the Federal Clean Air Act as either "attainment", "non-attainment", or "extreme non-attainment" areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is

designated as a State and Federal extreme non-attainment area for O₃, a State and Federal non-attainment area for PM_{2.5}, a State non-attainment area for PM₁₀, and Federal and State attainment area for CO, SO₂, NO₂, and Pb¹².

Regulatory Setting

Federal

Clean Air Act: The federal Clean Air Act of 1970 (as amended in 1990) required the U.S. Environmental Protection Agency (EPA) to develop standards for pollutants considered harmful to public health or the environment. Two types of National Ambient Air Quality Standards (NAAQS) were established. Primary standards protect public health, while secondary standards protect public welfare, by including protection against decreased visibility, and damage to animals, crops, landscaping and vegetation, or buildings. NAAQS have been established for six “criteria” pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb).

State

California Air Resources Board: The California Air Resources Board (CARB) is the state agency responsible for implementing the federal and state Clean Air Acts. CARB has established California Ambient Air Quality Standards (CAAQS), which include all criteria pollutants established by the NAAQS, but with additional regulations for Visibility Reducing Particles, sulfates, hydrogen Sulfide (H₂S), and vinyl chloride.

The Project is located within the San Joaquin Valley Air Basin, which includes San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and parts of Kern counties and is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District).

Air basins are classified as attainment, nonattainment, or unclassified. Attainment is achieved when monitored ambient air quality data is in compliance with the standards for a specified pollutant. Non-compliance with an established standard will result in a nonattainment designation and an unclassified designation indicates insufficient data is available to determine compliance for that pollutant.

Standards and attainment status for listed pollutants in the Air District can be found in Table 4. Note that both state and federal standards are presented.

¹² San Joaquin Valley Air Pollution Control District. Ambient Air Quality Standards and Valley Attainment Status. <http://www.valleyair.org/aqinfo/attainment.htm>. Site accessed August 2013.

Table 4
State and Federal Attainment Status and Standards

San Joaquin Valley Attainment Status for Criteria Pollutants ¹³ Criteria Pollutants				SJVAB - Air Quality Attainment Status		Primary Sources of Criteria Pollutants
Contaminant and Averaging Period	National Standard	State Standard	National Standards	State Standards		
Ozone (O ₃)	1-Hour	-----	0.09 ppm	-----	Nonattainment	Ozone is not emitted directly into the atmosphere, but is formed by a complex series of photochemical reactions between VOC and NOx (primarily NO).
	8 Hour	0.08 ppm	0.07 ppm	Nonattainment	Nonattainment	
NO ₂	1-Hour	-----	0.25 ppm	Attainment/ Unclassified	Attainment	NO ₂ is a member of a family of gaseous nitrogen compounds (NOx) and is a precursor to ozone formation. NO ₂ results primarily from combustion of fossil fuels.
	Annual	.053 ppm	-----	Attainment/ Unclassified	Attainment	
CO	1-Hour	35 ppm	20 ppm	Attainment/ Unclassified	Attainment/ Unclassified	CO is formed by the incomplete combustion of fuels. Under most conditions CO does not persist in the atmosphere. Most CO emissions come from motor vehicles.
	8-Hour	9 ppm	9.0 ppm	Attainment/ Unclassified	Attainment/ Unclassified	
PM 10	24-Hour	150 ug/m ³	50 ug/m ³	-----	Nonattainment	PM10 is comprised of dust, sand, salt spray, metallic, and mineral particles, pollen, smoke, mist, and acid fumes. PM10 may also include sulfate and nitrate aerosols.
	Annual	50 ug/m ³	20 ug/m ³	Attainment	Nonattainment	
PM 2.5	24-Hour	35 ug/m ³	-----	Nonattainment	-----	PM2.5 is typically emitted from combustion sources. PM2.5 also includes aerosols that may be formed in the atmosphere.
	Annual	12 ug/m ³	12 ug/m ³	Nonattainment	Nonattainment	
SO ₂	1-Hour	75 ppb	0.25 ppm	Attainment	Attainment	Sulfur dioxide (SO ₂) is formed primarily by the combustion of sulfur-containing fossil fuels. SO ₂ concentrations in the SJVAB are only about 4 percent of the standard.
	24-Hour	0.14 ppm	0.04 ppm	Attainment	Attainment	
	Annual	0.03 ppm	-----	Attainment	Attainment	
Lead (Pb)	Month	-----	1.5 ug/m ³	Attainment	Attainment	Primary sources of lead are smelters and battery manufacturing and recycling. In the past, combustion of leaded gasoline contributed to ambient concentrations.
	Quarter	1.5 ug/m ³	-----	Attainment	Attainment	

ppb = parts per billion; ppm = parts per million; ug/m³ = micrograms per cubic meter

¹³ California Air Resources Board, SJVAPCD, 2013

Additional State regulations include:

CARB Portable Equipment Registration Program: This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program: The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off- road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NO_x) and toxic particulate matter from diesel engines. CARB is currently developing a control measure to reduce diesel PM and NO_x emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act: Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which will be phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions levels.

In addition, this project is being evaluated pursuant to CEQA.

Regional

San Joaquin Valley Air Pollution Control District: The San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District) is the local agency charged with preparing, adopting, and implementing mobile, stationary, and area air emission control measures and standards. The Air District has several rules and regulations that may apply to the Project:

- Rule 3135 (Dust Control Plan Fees): This rule requires the project applicant to submit a fee in addition to a Dust Control Plan. The purpose of this rule is to recover the Air District's cost for reviewing these plans and conducting compliance inspections.
- Rules 4101 and 4102 (Visible Emissions and Nuisance): This rule applies to any source of air contaminants and prohibits the visible emissions of air contaminants or any activity which creates a public nuisance.
- Rule 4601 (Architectural Coatings): This rule limits volatile organic compounds (VOC) from architectural coatings. This rule specifies architectural coatings storage, clean up, and labeling requirements. It is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures any architectural coating for use within the district.
- Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations): This rule applies to use of asphalt for paving new roadways or restoring existing roadways disturbed by project activities.

- Rules 8011 and 8081 (Regulation VIII, Fugitive PM₁₀ Prohibitions): This regulation is designed to reduce PM₁₀ emissions by reducing fugitive dust. Regulation VIII requires implementation of control measures to ensure that visible dust emissions are substantially reduced. The Regulation VIII control measures are provided in Table 5.

Table 5
San Joaquin Valley Air Pollution Control District
Regulation VIII Control Measures for Construction Emissions of PM₁₀

The following are required to be implemented at all construction sites:
All disturbed areas, including storage piles, which are not actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizers/suppressants, covered with a tarp or other similar cover, or vegetative ground cover.
All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions during construction using water or chemical stabilizer suppressant.
All land clearing, grubbing, scraping, excavation, land leveling, grading cut and fill, and demolition activities during construction shall be effectively controlled of fugitive dust emissions utilizing application of water or pre-soaking.
When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from top of container shall be maintained.
All operations shall limit, or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.
Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site at the end of each workday.
Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.

Local

2035 Kings County General Plan

The Air Quality Element of the 2035 Kings County General Plan includes the following objectives and policies that address air quality:

AQ OBJECTIVE C1.1: Accurately assess and mitigate potentially significant local and regional air quality and climate change impacts from proposed projects within the County.

AQ Policy C1.1.1: Assess and mitigate project air quality impacts using analysis methods and significance thresholds recommended by the SJVAPCD and require that projects do not exceed established SJVAPCD thresholds.

AQ Policy C1.1.3: Ensure that air quality and climate change impacts identified during CEQA review are minimized and consistently and fairly mitigated at a minimum, to levels as required by CEQA.

AQ OBJECTIVE E1.1: Increase the use of energy conservation features, renewable sources of energy, and low-emissions equipment in new and existing development projects within the County.

IMPACT ASSESSMENT

III-a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The proposed Project will not conflict with or obstruct the implementation of the air quality management standards. Standards set by the Air District, CARB, and Federal agencies relating to the proposed Project will continue to apply. A Fugitive Dust Control Plan will be submitted to the Air District to comply with Regulation VIII (Table 4) prior to the initiation of construction. An Indirect Source Review (ISR) application and Air Impact Analysis (AIA) will be filed with the Air District to address NO_x emissions from construction. Therefore, the proposed Project will not conflict with the Air District plans and any impacts will be less than significant.

III-b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact. Typically, construction and operation of a project generates emissions of various air pollutants, including criteria pollutants such as carbon monoxide (CO), ozone precursors such as nitrous oxides (NO_x) and reactive organic gases (ROG) or Volatile Organic Compounds (VOC), particulate matter less than 10 microns in diameter (PM₁₀), and PM_{2.5}, as well as sulfur oxides (SO_x). For example, typical emission sources during construction include equipment exhaust, dust from wind erosion, earthmoving activities, and vehicle movements.

To assist in evaluating impacts of project-specific air quality emissions, the SJVAPCD has adopted thresholds of significance for criteria pollutant emissions, expressed in units of tons per year (tons/yr), as presented in Table 6.

Table 6
SJVAPCD Thresholds of Significance

Pollutant	Construction Emissions (tons/yr)	Operation Emissions (tons/yr)
ROG	10	10
NO _x	10	10
CO	100	100
Sox	27	27
PM ₁₀	15	15
PM _{2.5}	15	15

Source: SJVAPCD, May 2012.

Construction-Related Emissions:

The proposed Project includes the construction of a 60.39 acre solar energy generation facility. Proposed Project construction will require the use of graders, trenchers, and a crane. After initial site work, a hydraulic driver will be used to drive metal piers into the ground. Concrete pads will be poured for the electrical equipment stations and trenches will be dug in order to bury conduit for AC and DC wires connecting solar panel arrays with the onsite electrical equipment.

The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes PM emissions. The estimated construction period (two – five month phases) would generate air pollutant emissions intermittently within the site, and in the vicinity of the site. As a result, construction is a potential short-term concern because the proposed project is in a nonattainment area for ozone and PM.

Construction of the proposed project is estimated to require a maximum of 45 workers who would work in single shifts, five days per week. Construction is estimated to start in 2014 and would be completed within approximately 36 months, in two five month phases. An estimated 37 total construction worker truck trips (74 round-trips) are anticipated, with a maximum of 20 daily truck trips (10 roundtrips) for materials delivery during construction of the proposed project.

The proposed Project will comply with Air District Rule 8021 for construction and earthmoving activities.

The proposed project’s short-term construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2 software – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the ITE Manual, vehicle mix, trip length, average speed, etc. However, as the proposed project is not a typical land use in CalEEMod, project-specific data was input into the model (e.g., construction phases and timing, equipment, vehicle trips, etc.). The proposed project’s unmitigated construction-related emissions have been estimated using CalEEMod and are presented in Table 7 and the output files can be seen in Appendix B.

**Table 7
Maximum Unmitigated Project Construction-Related Emissions**

Pollutant	Project Construction Emissions (tons/yr)	SJVAPCD Thresholds of Significance (tons/yr)
ROG (VOC)	0.5460	10
NO _x	3.4979	10
CO	2.8374	100
SO _x	0.0004	27
PM ₁₀	0.5052	15
PM _{2.5}	0.3461	15

Source: CalEEMod, May 2014 (see Appendix B).

Operational Emissions

The solar facility would go online upon completion of construction and would be monitored remotely. Emissions resulting from solar electricity generation are negligible because no fuels are combusted. The facility would be operated remotely and only generate additional trips when cleaning, repair or security visits are required. As such, approximately 120 total vehicle trips (60 round-trips) would be made to the project site per year during the long-term operation of the project. Maintenance would likely include periodic washing of solar panels, which would be expected to involve the use of a water truck. The water truck usage is accounted for in the modeling for operational emissions by assuming an additional 48 total vehicle trips per year (24 round-trips) per year, for a total of 168 vehicle trips (84 round-trips) per year during operations. Because the proposed project would be operated remotely and would not involve typical operations that would involve operational fuel combustion, energy usage, waste generation, or water usage, emissions associated with mobile sources would be the primary operational source of air pollutant emissions.

In order to ensure that the 168 total vehicle trips per year required for maintenance of the proposed project would not cause ROG, NOX, or any other criteria pollutant emissions to exceed the SJVAPCD's applicable thresholds of significance or degrade the region's air quality, the proposed project's operational emissions were estimated using CalEEMod. As shown in Table 8, the operational emissions of the project would be well below the applicable thresholds of significance. Therefore, the proposed project's operational emissions would not result in a significant contribution to the region's nonattainment status of ozone or PM, and would not violate an air quality standard or contribute substantially to an existing or projected air quality violation.

Table 8
Maximum Unmitigated Project Operational Emissions

Pollutant	Project Operational Emissions (tons/yr)	SJVAPCD Thresholds of Significance (tons/yr)
ROG (VOC)	1.419	10
NO _x	0.0001	10
CO	0.0006	100
SO _x	0.0000	27
PM ₁₀	0.0000	15
PM _{2.5}	0.0000	15

Source: CalEEMod, May 2014 (see Appendix B).

III-c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact. As discussed in Impact III-b, the Project would result in the generation of criteria pollutants during construction; however, during construction, air quality impacts would be less than SJVAPCD thresholds for non-attainment pollutants and operation of the Project would not exceed the emissions thresholds for criteria pollutants. Accordingly, net increases of non-attainment criteria pollutants would be less than significant.

III-d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. The SJVAPCD defines sensitive receptors as: facilities that house or attract children, the elderly, and people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors¹⁴. The nearest sensitive receptor to the proposed Project site is located approximately 200 feet south.

As discussed in Impact III-b, the proposed Project would result in the generation of criteria pollutants during construction; however, these impacts would be less than SJVAPCD thresholds for non-attainment pollutants and operation of the Project would not exceed emissions thresholds for criteria pollutants.

Per CARB's Diesel Risk Reduction Plan¹⁵, the cancer risk associated with being exposed at a distance of 20 m to a truck stop (the closest comparable use listed in figure 2) for 70 years is approximately 75 to 150 chances in a million. At 60 meters (200 feet), the risk of cancer from exposure to diesel particulate matter goes down by about 50 percent¹⁶.

So any risk of cancer from exposure to diesel particulate matter at 200 feet to a construction site for 2 five month periods is negligible at best since exposure for 70 continuous years creates a risk of only about 0.005 percent. Therefore, any exposure of sensitive receptors to pollutant concentrations would be less than significant.

III-e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative or formulaic methodologies to determine the presence of a significant odor impact do not exist. The intensity of an odor source's operations and its proximity to sensitive receptors influences the potential significance of odor emissions. Table 9 below shows common types of facilities that have been known to produce odors in the San Joaquin Valley.

Table 9
Screening Levels for Potential Odor Sources

Type of Facility	Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile

¹⁴ GAMAQI, July 2014, Pg. 65.

¹⁵ California Air Resources Board. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. <http://www.arb.ca.gov/diesel/documents/rrpFinal.pdf>. Page 17. Accessed September 2014.

¹⁶ South Coast Air Quality Management District's Air Quality Issues Regarding Land Use. <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/chapter-2---air-quality-issues-regarding-land-use.pdf?sfvrsn=2> Page 2-6. Accessed September 2014

Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g. auto body shops)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile

Sources: GAMAQI, July 2014, Table 6, Pg 102

The proposed Project does not involve any of the aforementioned facilities, and electricity generation via the use of photovoltaic systems would not generate chemical emissions that would negatively contribute to air quality or create objectionable odors.

As with all construction projects, during construction there would be emissions of diesel particulate matter (DPM). DPM poses health risks¹⁷. However, as discussed in Impact III-b, the proposed Project would not exceed SJVAPCD thresholds of significance for particulate matter or other criteria pollutants. Additionally, with the nearest sensitive receptor at 200 feet away and construction expected to be completed in two five month phases over 36 months, health risks associated with DPM are minimal. By way of comparison, the risk of developing cancer after being exposed for 70 years to a truck stop at a distance of 60 meters (approximately 200 feet) is 0.005 percent¹⁸¹⁹. Therefore, impacts associated with DMP will be less than significant.

No significant odor impacts related to Project implementation are anticipated due to the nature and short-term extent of potential sources, as well as the intervening distance to sensitive receptors. Therefore, the operation of the Project will have a less than significant impact associated with the creation of objectionable odors affecting a substantial number of people.

¹⁷United States Department of Labor. Occupational Safety & Health Administration. https://www.osha.gov/dts/hazardalerts/diesel_exhaust_hazard_alert.html Accessed September 2014.

¹⁸ California Air Resources Board. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. <http://www.arb.ca.gov/diesel/documents/rrpFinal.pdf>. Page 17. Accessed September 2014.

¹⁹ South Coast Air Quality Management District's Air Quality Issues Regarding Land Use. <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/chapter-2---air-quality-issues-regarding-land-use.pdf?sfvrsn=2> Page 2-6. Accessed September 2014

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

The project site is located in the middle of the San Joaquin Valley of California south of the Lemoore city limits in Kings County. The project site is located approximately one mile south of the City of Lemoore. A reconnaissance-level field survey of the project site was conducted on July 22, 2014 by Live Oak Associates, Inc. (LOA) biologist Jeff Gurule. The survey consisted of walking transects spaced approximately 75 feet apart, covering the entire site. During this time principal land uses of the site were identified and the constituent plants and animals were noted. All open burrows were

visually inspected on and immediately adjacent to the site. Field surveys conducted for this study were sufficient to assess the significance of possible biological impacts associated with the development plans for the project site (Appendix C).

The project site consisted of a disced field supporting sparse weedy herbaceous vegetation. The project site is situated within a region dominated by commercial, rural residential, and agricultural land uses. The site is characterized by a single habitat/land use, agricultural field. At the time of the survey the project site consisted of a sparsely vegetated, disced agricultural field. The site has been regularly disturbed by annual disking, canal removal, and other agriculture-related activities for at least the last 20 years. In the 1990's a canal running diagonally through the site was filled and rerouted to its current location at the east and south of the project site (Appendix C).

Vegetation in the disced field was somewhat sparse and consisted entirely of weedy herbaceous vegetation such as bractscale (*Atriplex serenana* var. *serenana*), common tarweed (*Centromadia pungens*), white sweetclover (*Melilotus albus*), and Bermuda grass (*Cynodon dactylon*), among others. Due to the disturbed nature of the field and the sparse vegetation, the field provides only marginal habitat for most native wildlife. Nonetheless, some native wildlife species undoubtedly utilize the field. Due to limited aquatic habitat on the site and regular agricultural processes, the agricultural field provide marginal habitat for amphibian and reptile species. While this habitat is not optimal for these species, some may nonetheless occur in this habitat. For example, Pacific chorus frogs (*Pseudacris regilla*) and western toads (*Bufo boreas*) may use the adjacent irrigation canal for breeding and may also disperse through the disced field during the winter and spring. Reptile species that may forage in this habitat include the side-blotched lizard (*Uta stansburiana*), gopher snake (*Pituophis melanoleucus*), and common kingsnake (*Lampropeltis getulus*).

The agricultural field provides foraging habitat for a few avian species. Common resident species likely to forage in the agricultural field include mourning doves (*Zenaidura macroura*) (observed) and American crows (*Corvus brachyrhynchos*), as well as mixed flocks of Brewer's blackbirds (*Euphagus cyanocephalus*), brown-headed cowbirds (*Molothrus ater*), and European starlings (*Sturnus vulgaris*). The western kingbird (*Tyrannus verticalis*) is a common summer migrant to agricultural lands of the region and winter migrants common to the area include white-crowned sparrows (*Zonotrichia leucorhynchus*), savannah sparrows (*Passerella sandwichensis*), and American pipits (*Anthus rubescens*).

A few mammal species may also occur within the agricultural field of the site. Botta's pocket gopher (*Thomomys bottae*) burrow mounds were observed in the field. A few California ground squirrel (*Otospermophilus beecheyi*) burrows and one individual squirrel were observed during the site survey. Other rodents that may occur in the ag field include the deer mouse (*Peromyscus maniculatus*) and California vole (*Microtus californicus*). Other small mammals that may occasionally occur in this field include the black-tailed hare (*Lepus californicus*) and Audubon cottontail (*Sylvilagus audubonii*). Various species of bat may also forage over the field for flying insects.

The presence of amphibians, reptiles, birds and small mammals is likely to attract foraging raptors and mammalian predators. Raptors such as Swainson's hawk (*Buteo swainsoni*) (observed), red-tailed hawk (*Buteo jamaicensis*) (observed), white-tailed kite (*Elanus leucurus*), and various owls such as barn owl (*Tyto alba*) (feathers observed) and great horned owl (*Bubo virginianus*) (feathers observed) would likely forage over the site. Mammalian predators that may occur on the site would

be limited to raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), coyotes (*Canis latrans*) and red foxes (*Vulpes vulpes*), as these species are tolerant of human disturbance.

The topography of the project site is level at an elevation of approximately 220 feet National Geodetic Vertical Datum (NGVD). Natural drainage features such as creeks, ponds, vernal pools, etc. are not present on the project site (Appendix C).

The project site contains one soil mapping unit; Lemoore sandy loam, partially drained. This soil mapping unit is classified as hydric in the California Hydric Soils List. Hydric soils are soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part; under sufficiently wet conditions, they support the growth and regeneration of hydrophytic vegetation. However, soils of the site have been significantly altered through decades of agricultural activity such as grading, scraping, discing, and the construction and deconstruction of an historical canal that once ran diagonally through the site. As such, any native soil characteristics potentially supporting sensitive biological resources have been destroyed or significantly altered (Appendix C).

The project site is located in a region of California having a Mediterranean climate. Summers are dry and typically quite warm with daytime temperatures commonly exceeding 100° Fahrenheit. Winters are rainy and cool with daytime temperatures rarely exceeding 65° Fahrenheit. Annual precipitation in the general vicinity of the project site is highly variable from year to year with a mean annual rainfall of approximately 12 inches, most of which falls between the months of October and March. Virtually all precipitation falls in the form of rain with stormwater infiltrating onsite soils (Appendix C).

Regulatory Setting

Federal

Endangered Species Act: The Federal Endangered Species Act (FESA) protects plants and wildlife that are listed as endangered or threatened by the USFWS and National Oceanic and Atmospheric Administration (NOAA) Fisheries. Section 9 of the FESA prohibits the taking of listed wildlife, where taking is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging-up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16USC1538). Pursuant to Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed plant or wildlife species or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity, provided the action will not jeopardize the continued existence of the species. Section 10 of the FESA provides for issuance of incidental take permits to private parties, provided a Habitat Conservation Plan (HCP) is developed.

Migratory Bird Treaty Act: The MBTA implements international treaties devised to protect migratory birds and any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation,

education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits are in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the CDFG Code.

Federal Clean Water Act: The federal Clean Water Act's (CWA's) purpose is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States without a permit from the U.S. Army Corps of Engineers (ACOE). The definition of waters of the United States includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3 7b)." The USEPA also has authority over wetlands and may override an ACOE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or Waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the RWQCB.

State

California Endangered Species Act: The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA, but unlike its federal counterpart, the CESA applies the take prohibitions to species proposed for listing (called candidates by the state). Section 2080 of the CDFG Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the CDFG Code as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the CDFG to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered, threatened, or candidate species or result in destruction or adverse modification of essential habitat. The CDFG administers the act and authorizes take through Section 2081 agreements (except for designated fully protected species).

Fully Protected Species: The State of California first began to designate species as fully protected prior to the creation of the CESA and FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians, reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered pursuant to the CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (CDFG Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, the CDFG prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

Native Plant Protection Act: Regarding listed rare and endangered plant species, the CESA defers to the California Native Plant Protection Act (NPPA) of 1977 (CDFG Code Sections 1900 to 1913), which prohibits importing of rare and endangered plants into California, and the taking and selling of rare and endangered plants. The CESA includes an additional listing category for threatened plants that are not protected pursuant to NPPA. In this case, plants listed as rare or endangered pursuant to the NPPA are not protected pursuant to CESA, but can be protected pursuant to the CEQA. In addition,

plants that are not state listed, but that meet the standards for listing, are also protected pursuant to CEQA (Guidelines, Section 15380). In practice, this is generally interpreted to mean that all species on lists 1B and 2 of the CNPS Inventory potentially qualify for protection pursuant to CEQA, and some species on lists 3 and 4 of the CNPS Inventory may qualify for protection pursuant to CEQA. List 3 includes plants for which more information is needed on Taxonomy or distribution. Some of these are rare and endangered enough to qualify for protection pursuant to CEQA. List 4 includes plants of limited distribution that may qualify for protection if their abundance and distribution characteristics are found to meet the standards for listing.

California Lake and Streambed Alteration Agreement: Sections 1600 through 1616 of the CDFW Code require that a Lake and Streambed Alteration Program Notification Package be submitted to the CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal on which the CDFW and the applicant agree is the Lake and Streambed Alteration Agreement. Often, projects that require a Lake and Streambed Alteration Agreement also require a permit from the ACOE pursuant to Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Lake and Streambed Alteration Agreement may overlap.

Local

This project is being evaluated pursuant to CEQA; however, there are no local regulations, plans, programs, or guidelines associated with biological resources that are applicable to the proposed project.

IMPACT ASSESSMENT

IV-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 Game or U.S. Fish and Wildlife Service?

Less Than Significant With Mitigation Incorporation. The Project site is located within the United States Geological Survey (USGS) Lemoore 7.5-minute topographic quadrangle. A review of information from the California Department of Fish and Game Natural Diversity Database (CNDDDB) RareFind3 data (2014) was conducted for the Lemoore USGS quadrangle, and for the eight surrounding quadrangles (Hanford, Riverdale, Laton, Burrel, Westhaven, Guernsey, Stratford, and Vanguard) using the CNDDDB Rarefind 2014. A list of special status species that could occur in the Project vicinity can be seen in Table 10.

Table 10
List of Special Status Species that could occur in the Project vicinity.

Species	Status	Habitat	Occurrence in the Project Site*
PLANTS			
Brittlescale (<i>Atriplex depressa</i>)	CNPS 1B.2	Occurs in relatively barren areas with alkaline clay soils in chenopod scrub, playas, valley grasslands, and vernal pools of the Central Valley.	Absent. Historic and current use of the site has rendered it unsuitable for this species.
Recurved Larkspur (<i>Delphinium recurvatum</i>)	CNPS 1B.2	Chenopod scrub, cismontane woodlands, and alkaline soils of valley and foothill grasslands. Blooms March-May.	Absent. Historic and current use of the site has rendered it unsuitable for this species.
Panoche Pepper-grass (<i>Lepidium jeridii</i> ssp. <i>album</i>)	CNPS 1B.2	Occurs in valley and foothill grasslands within white or grey clay lenses on steep slopes incidental in alluvial fans and washes. Prefers clay and gypsum-rich soils. Blooms Feb-June.	Absent. Soils and habitat for this species are absent from the project site.
ANIMALS			
Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>)	FT	Vernal pools of California's Central Valley.	Absent. Vernal pools required by this species are absent from the project site.
Vernal Pool Tadpole Shrimp (<i>Lepidurus packardi</i>)	FE	Primarily found in vernal pools of California's Central Valley.	Absent. Vernal pool habitat required by this species is absent from the project site.
Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Mature elderberry shrubs of California's Central Valley and Sierra Foothills.	Absent. Elderberry shrubs, the obligate habitat required by this species, are absent from the project site and surrounding lands.
Blunt-Nosed Leopard Lizard (<i>Gambelia silus</i>)	FE, CE, CP	Frequents grasslands, alkali meadows and chenopod scrub of the San Joaquin Valley.	Unlikely. Historic and current use of the site has created conditions unfavorable for this species. The closest documented occurrence is located approximately 5.5 miles southeast of the project site.

Species	Status	Habitat	Occurrence in the Project Site*
Giant garter snake (<i>Thamnophis gigas</i>)	FT, CT	Habitat requirements consist of (1) adequate water during the snake's active season (early-spring through mid-fall) to provide food and cover; (2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat during the active season; (3) grassy banks and openings in waterside vegetation for basking; and (4) higher elevation uplands for cover and refuge from flood waters during the snake's dormant season in the winter.	Absent. The adjacent canal, which is barren of vegetation, provides unsuitable breeding and overwintering habitat. The nearest recorded observation is more than 14 miles to the northwest and is a historic record from a published account in 1948 (CDFW 2014a).
Swainson's Hawk (<i>Buteo swainsoni</i>)	CT	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	Present. The onsite agricultural field offers suitable foraging habitat for the Swainson's hawk. Two adult Swainson's hawks were observed flying over the field during LOA's July field survey. The hawks persisted over the site, repeatedly calling, throughout the survey. Nesting habitat is absent from the project site. No Swainson's hawk nests were observed in trees on surrounding lands.
Western Snowy Plover (<i>Charadrius alexandrinus nivosus</i>)	FT, CSC	Uses man-made agricultural wastewater ponds and reservoir margins. Breeds on barren to sparsely vegetated ground at alkaline or saline lakes, reservoirs, ponds, and riverine sand bar.	Absent. Breeding and foraging habitat is absent from the project site.
Fresno kangaroo rat (<i>Dipodomys nitratoides exilis</i>)	FE, CE	Inhabits grassland on gentle slopes generally less than 10°, with friable, sandy-loam soils.	Absent. Historic and current use of the site has rendered it unsuitable for this species.
Tipton Kangaroo Rat (<i>Dipodomys nitratoides nitratoides</i>)	FE, CE	Chenopod scrub and alkali grasslands of the Tulare Basin from Fresno County in the north to Kern County in the south.	Absent. Historic and current use of the site has rendered it unsuitable for this species.
San Joaquin Kit Fox (<i>Vulpes macrotis mutica</i>)	FE, CT	Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged (4 to 10 inches in diameter) ground squirrel burrows as denning habitat.	Unlikely. A walking transect survey of the site in which all open burrows were investigated found no evidence of past or present kit fox occupation of the site. The site has been highly modified for agricultural use and, as a result, provides only marginal foraging and breeding habitat for the kit fox. There have been 13 documented sightings within a ten mile radius of the study site (see Figure 5), between 1975 and 2006 (CDFW 2014). Therefore, kit foxes are unlikely to breed on the site and, at most, may occasionally forage on the site during dispersal movements.

CONDITIONAL USE PERMIT NO. 14-03 FOR THE LEMOORE 14 PROJECT

Chapter 3-Impact Analysis

Species	Status	Habitat	Occurrence in the Project Site*
Western Spadefoot (<i>Spea hammondi</i>)	CSC	Primarily occurs in grasslands, but also occurs in valley and foothill hardwood woodlands. Requires vernal pools or other temporary wetlands for breeding.	Absent. Vernal pools required by this species are absent from the project site and surrounding lands.
Western Pond Turtle (<i>Emys marmorata</i>)	CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites of sandy banks or grassy open fields for egg laying.	Unlikely. Irrigation canals adjacent to the site provide only marginal habitat for this species. These artificial waterways are barren of vegetation and, therefore, provide inadequate foraging habitat and cover for western pond turtles. This species has been documented approximately three miles to the southeast of the project site (CDFW 2014a).
White-tailed Kite (<i>Elanus leucurus</i>)	FP	Open grasslands and agricultural areas throughout central California.	Possible. Foraging habitat for this species is present on the site. Nesting habitat is absent from the site.
Burrowing Owl (<i>Athene cunicularia</i>)	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	Unlikely. A walking transect survey of the site in which all open burrows were investigated found no evidence of past or present burrowing owl occupation of the site. The nearest documented occurrence of this species is approximately 6.0 miles to the east (CDFW 2014).
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	Possible. Foraging habitat for this species is present on the site. Nesting habitat is absent from the site.
Tricolored Blackbird (<i>Agelaius tricolor</i>)	CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	Possible. The site provides possible foraging habitat; breeding habitat is absent from the site and surrounding lands.
American Badger (<i>Taxidea taxus</i>)	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	Unlikely. A walking transect survey of the site in which all open burrows were investigated found no evidence of past or present badger occupation of the site.

***Explanation of Occurrence Designations and Status Codes**

Present: Species observed on the sites at time of field surveys or during recent past.

Likely: Species not observed on the sites, but it may reasonably be expected to occur there on a regular basis.

Possible: Species not observed on the sites, but it could occur there from time to time.

Unlikely: Species not observed on the sites, and would not be expected to occur there except, perhaps, as a transient. **Absent:** Species not observed on the sites, and precluded from occurring there because habitat requirements not met.

FE Federally Endangered

CE California Endangered

FT Federally Threatened

CT California Threatened

FPE Federally Endangered (Proposed)

CR California Rare

FC Federal Candidate

CP California Fully Protected

CNPS	<i>California Native Plant Society Listing</i>	CSC	<i>California Species of Special Concern</i>
1A	<i>Plants Presumed Extinct in California</i>	3	<i>Plants about which we need more information – a review list</i>
1B	<i>Plants Rare, Threatened, or Endangered in California and elsewhere</i>	4	<i>Plants of limited distribution – a watch list</i>
2	<i>Plants Rare, Threatened, or Endangered in California, but more common elsewhere</i>		

In addition to the sensitive species identified by the CNDDDB, in July of 2014, LOA surveyed the site for biotic habitats, as the plants and animals occurring in those habitats may be protected by state and federal law. No special-status plant species were identified on the Project site and due to the highly disturbed condition of the site no special-status plants are considered likely to be present. Of the 17 special status animal species potentially occurring in the region, 13 species would be absent or unlikely to occur on the site due to the absence of suitable habitat. These species include the vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, blunt-nosed leopard lizard, giant garter snake, western snowy plover, Tipton kangaroo rat, Fresno kangaroo rat, San Joaquin kit fox, western spadefoot, western pond turtle, burrowing owl, and American badger. Since there is little to no likelihood that these species would use the site, disturbance from future development of the project site would have no effect on these species (Appendix C). The Project site however may provide habitat for federal and state-listed or special-status wildlife species which could impact the following species:

Swainson’s Hawk (*Buteo swainsoni*). Federal Listing Status: None; State Listing Status: Threatened.

The Swainson’s hawk is designated as a California Threatened species. The loss of agricultural lands (i.e., foraging habitat) to urban development and additional threats such as riverbank protection projects have contributed to its decline. However, in recent years the Central Valley Swainson’s hawk population has been increasing (Appendix C).

Swainson’s hawks are large, broad-winged, broad-tailed hawks and have a high degree of mate and territorial fidelity. They arrive at their nesting sites in March or April. In the Central Valley, Swainson’s hawks typically nest in large trees in or peripherally to riparian systems adjacent to suitable foraging habitats. The young hatch sometime between March and July and do not leave the nest until some 4 to 6 weeks later. Other suitable nest sites include lone trees, groves of trees such as oaks, other trees in agricultural fields, and mature roadside trees. Central Valley Swainson's hawks forage in large, open fields with abundant prey, including grasslands or lightly grazed pastures, alfalfa and other hay crops, and certain grain and row croplands. Their primary food source during the breeding season is voles; however they also prey on other small mammals, birds, and insects during this time (Appendix C).

Potential to occur onsite. Swainson’s hawks are known to forage in areas surrounding the project site; in fact, two agitated adults were observed calling and flying over the site during LOA’s July 2014 survey. Nest trees are absent from the project site and an inspection of nearby trees during the July 2014 field survey found no evidence of an active Swainson’s hawk nest. The nearest documented Swainson’s hawk nest is located approximately 575 feet to the southwest of the project site in 2011, with a total of 22 nests located within 10 miles of the project site (see Appendix C, Figure 5) (Estep 2011, CDFW 2014, Robert Hansen pers. comm.). This nest tree was inspected during LOA’s site survey and a small stick nest was observed but no evidence of nesting activity was observed. Given

the proximity of a known nest tree and the presence of Swainson's hawks on the site during the field survey, it is likely that Swainson's hawks forage on the site (Appendix C).

Potential Impacts. Two documented Swainson's hawk nests occur within 1 mile of the project site and 22 documented nests occur within 10 miles of the project site (Estep 2011, CDFW 2014, Robert Hansen pers. comm.) (see Appendix C, Figure 5). A pair of adult Swainson's hawks was observed over the project site during the July 2014 LOA field survey. Trees are absent from the project area. The nearest trees to the site are some medium sized saltcedar trees (*Tamarix sp.*) that were growing in a row along the boundary of the adjacent property to the east. These trees contained no stick nests and supported relatively thin, flimsy branches that appeared incapable of supporting a Swainson's hawk nest. Because Swainson's hawk nesting habitat is absent from the project area, the project will have no impact on nesting habitat. However, the project will result in the loss of approximately 53 acres of moderate quality foraging habitat and potentially cause indirect effects to nesting Swainson's hawks as a result of project construction activities. Conversion of the onsite agricultural field to solar development will result in the loss of a small amount of Swainson's hawk foraging habitat. This foraging habitat is considered of moderate quality due to regular discing, lack of irrigation, sparse vegetation, and limited small mammal activity found on the site. Impacts to Swainson's hawk foraging habitat have been analyzed using data and methodologies collected and developed by Swainson's hawk researcher Jim Estep for the RE Kansas South LLC Solar Generation Facility (Estep 2011). The Kansas South project site lies approximately 3.0 miles southwest of the Lemoore 14 project site (Appendix C).

Estep conducted a systematic Swainson's hawk nesting survey and habitat analysis across a 10 mile radius from the Kansas South solar site. He noted the location, habitat characteristics, and ultimate success of active nests. In addition, all habitats within the radius were categorized and ranked according to suitability for foraging Swainson's hawks. With this data he calculated the average foraging acres for all Swainson's hawks encountered and the acres of available foraging habitat within the radius, based on previous research he conducted in 1989 (Estep 1989) in which nesting Swainson's hawk pairs utilized an average of 6,820 acres of foraging habitat per pair. This average foraging acreage was reduced by 30 percent in the Estep 2011 study to account for overlap of foraging ranges of different nesting pairs within the population. Available foraging acreage was compared with the average foraging acreage of the Swainson's hawks within the radius. Available foraging acres within the radius in excess of the required foraging acres of the Swainson's hawk population within the radius were considered surplus foraging acres. The acres lost to project development were calculated as a percent loss of these surplus acres. If the percent loss of surplus acres exceeded 30 percent, impacts were considered significant. The same calculation was performed for all known solar projects within the radius to determine cumulative loss of foraging habitat (Appendix C).

Given the close proximity of the Kansas South Estep study area to the Lemoore 14 project site, approximately 81 percent of the Kansas South Estep study area is included within a 10 mile radius around the Lemoore 14 project site. Therefore, the Estep study is an effective model for the Lemoore 14 Swainson's hawk analysis. It must be noted however, that the Lemoore 14 analysis area includes approximately 60 square miles that are outside and northeast of the Estep 2011 study area; these 60 square miles fall largely within the sphere of influence of the City of Hanford. This area consists of a mix of rural residential, agricultural, and developed land that is generally low quality Swainson's hawk foraging habitat. Therefore, this analysis has taken a very conservative approach and removed these 60 square miles or 38,400 acres from the 187,000 acres of available foraging

habitat calculated by Estep within the 10 mile radius of the Kansas South Solar Project for a total of 148,600 acres of available foraging habitat within a 10 mile radius of the Lemoore 14 project site. While foraging habitat is more limited in these 60 square miles due to the presence of the City of Hanford, potential nesting habitat is abundant in this area due to the increase in tree density. This area of Hanford within a 10 mile radius of the Lemoore 14 solar project also contains another solar project that was not included in Estep's cumulative analysis for the Kansas South solar project. This solar project is the ImMODO Hanford 12 solar project that converted an 18-acre industrial yard into a PV solar facility. The CEQA analysis of this project found the area to contain extremely marginal to unsuitable foraging habitat. Therefore, this small solar project has been omitted from the Lemoore 14 Swainson's hawk foraging habitat cumulative impact analysis (Appendix C).

Impacts to Foraging Habitat: The Lemoore 14 Project would remove approximately 53 acres of moderate quality Swainson's hawk foraging habitat. Table 11 shows the area of suitable agricultural foraging habitat adapted from Estep 2011 within a 10 mile radius of the project site, the amount of agricultural foraging habitat required to support 22 nesting pairs of Swainson's hawks (from Estep 1989), the area that exceeds the estimated required foraging habitat, the area removed by the project, and the area and percent of available habitat remaining after implementation of the project (Appendix C).

Table 11.
Total Acres of Available, Required, and Impacted Agricultural Foraging Habitat Within the Lemoore 14 Study Area

Area	Acreage	Percent of Swainson's Hawk Habitat
Available Swainson's Hawk Foraging Habitat (A)*	~148,600	
Foraging Habitat Required for 22 Swainson's Hawk Pairs** (B)	105,028	
Difference (A – B, representing surplus available acres)	43,572	
Project Acreage	53	
Remaining Available Habitat Minus Project Area	148,547	99.96
Remaining Surplus Habitat Available Minus Project Area	43,519	99.88

* Adapted from (Estep 2011):

** Adjusted for 30 percent foraging overlap (acres).

Because the amount of available Swainson's hawk foraging habitat (A) is greater than the foraging habitat that would be required by the 22 nesting pairs documented within 10 miles of the site (B), a greater amount of foraging habitat in the regional study area is available than is required by the Swainson's hawks identified in the study area. The surplus of 43,572 acres of additional available foraging habitat would only be reduced by 0.12 percent after project build-out, leaving 99.88 percent of regionally available surplus foraging habitat intact. This would be sufficient to support a dynamic agricultural landscape and provide for expansion of the existing Swainson's hawk population in the region. Because the project will result in no reduction of required foraging habitat and only a tiny fraction of surplus foraging habitat, the amount of land that would be removed from available habitat as a result of project construction would not affect the distribution and abundance of the regional population, or prevent the future expansion of the population. Therefore, any impact the project would have on the availability of foraging habitat for Swainson's hawk would be less than significant, and no mitigation is required (Appendix C).

Similarly, cumulative losses of Swainson’s hawk foraging habitat from the Lemoore 14 project would also be less than significant, as determined through the following analysis. Cumulative impacts from known proposed solar generation facilities were identified within the 10-mile radius of the Kansas South solar facility (Estep 2011), totaling 4,723 acres of potentially lost Swainson’s hawk foraging habitat. The cumulative analysis is presented in Table 12 (Appendix C).

Table 12.
Total Acres of Available, Required, and Cumulatively Impacted
Agricultural Foraging Habitat Within the Lemoore 14 Study Area

Area	Acreage	Percent of Swainson’s Hawk Habitat
Available Swainson’s Hawk Foraging Habitat (A)*	~148,600	
Foraging Habitat Required for 22 Swainson’s Hawk Pairs** (B)	105,028	
Difference (A – B, representing surplus available acres)	43,572	
Cumulative Project Acreage	4,723	
Remaining Available Habitat Minus Cumulative Losses	143,877	96.8
Remaining Surplus Habitat Available Minus Cumulative Losses	38,849	89.2

* Adapted from (Estep 2011):

** Adjusted for 30 percent foraging overlap (acres).

The additional foraging habitat that would be removed by the development of cumulative projects, including the proposed Lemoore 14 project, would result in 38,849 acres of surplus foraging acres intact. This represents a 10.8 percent reduction of surplus foraging habitat. Estep set a threshold of a 30 percent reduction of surplus foraging habitat needed to consider a project’s impact or cumulative impact as significant under CEQA. With the judicious removal of the 38,400 acres of available foraging from Estep’s calculated total for the 10 mile radius around the Kansas South Solar Project, the percentage of cumulative loss of regional foraging habitat is still far from the 30 percent threshold. Therefore, the impact of these projects on foraging habitat for Swainson’s hawks would not result in a significant cumulative impact, and the project’s 53 acre contribution to cumulative impacts would, likewise, be less than significant (Appendix C).

Impacts to Nesting Swainson’s Hawks: Given the close proximity of a documented Swainson’s hawk nest tree, the project has the potential to disrupt the nesting patterns of Swainson’s hawks, should construction occur during the nesting period (April 1st – August 31st). Disturbance to nesting Swainson’s hawks could result in nest abandonment or nest failure, which would be a violation of state and federal law. The following mitigations will reduce or illuminate impacts to nesting Swainson’s hawks (Appendix C).

Mitigation Measures. Prior to the construction of the project one or more of the following measures will be implemented.

BIO - 1 (Avoidance). In order to avoid impacts to Swainson’s hawk all onsite project activities will commence after the nesting season has concluded (August 31st). Major construction (i.e. PV panel installation, perimeter fencing, trenching, excavating, or any activity that would require the use of heavy equipment) will occur before the start of the nesting season (April 1st).

BIO - 2 (Pre-construction Surveys). If Project delays occur and construction must be initiated during the nesting season, prior to any construction related activity, preconstruction surveys will be conducted on the project site and adjacent lands within 0.5 mile of the site to identify any nesting pairs of Swainson's hawks that may be present. These surveys will conform to the requirements of CDFW as presented in *Recommended Timing And Methodology For Swainson's Hawk Nesting Surveys In California's Central Valley*, Swainson's Hawk Technical Advisory Committee, May 31, 2000 (see Appendix D of Appendix C). If no nesting pairs are found on or within the vicinity of the project site, no further mitigation is required.

BIO - 3 (Establish buffers). Should any active nests be discovered in or near proposed construction zones, they shall be avoided by one-quarter mile in accordance with CDFW's 1994 Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley. All other nests shall be protected from all construction activities within 50 feet of the nest site. In the event that nests cannot be successfully avoided, the applicant may be required to obtain authorization from CDFW or USFWS. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.

Implementation of these measures would reduce impacts to Swainson's hawks to a less than significant level.

Loss of Habitat for Special Status Animals that may Occur on the Site as Occasional or Regular Foragers but Breed Elsewhere

Four species may utilize the site for foraging only. These species include the Swainson's hawk, white-tailed kite, loggerhead shrike, and tricolored blackbird. Similar to more suitable foraging habitat is abundant throughout the region. Because the site is to retain earthen ground cover following project implementation, foraging habitat for loggerhead shrikes and tricolored blackbirds will likely be available after project build out (see Appendix C). Therefore, the project would not significantly reduce the amount or quality of foraging habitat currently available in the region. A detailed analysis of impacts to Swainson's hawk foraging habitat is presented above. Therefore, project development will result in a less than significant impact on these species and no mitigation is required (see Appendix C).

Disturbance to Migratory Birds That May Nest on or Immediately Adjacent to the Site

Potential Impacts. Although the agricultural field on the site is unlikely to be used by most ground-nesting birds, disturbance-tolerant species such as the killdeer would have the potential to nest on the site. Nearly all native bird species are protected by the federal Migratory Bird Treaty Act. If birds were to nest on or adjacent to the project site prior to construction, ground disturbance or other project-related activities could result in the abandonment of active nests or direct mortality to birds. Such an activity would constitute a violation of state and federal laws (see Appendix C, Section 3.2.2) and would be considered a significant impact under CEQA (Appendix C).

Mitigation Measures. In order to minimize construction disturbance to migratory bird nests, the applicant will implement one or more of the following measure(s) as necessary, prior to project construction:

BIO - 4 (Avoidance). In order to avoid impacts to all nesting birds from grading and construction, these activities will occur outside of the typical avian nesting season, or between September 1 and January 31.

BIO – 5 (Pre-construction surveys). If, due to Project delays, grading or construction must occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active migratory bird nests within 15 days of the onset of these activities.

BIO - 6 (Establish buffers). Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. Typically this buffer is 50 feet. In the event that nests cannot be successfully avoided, the applicant may be required to obtain authorization from CDFW or USFWS. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.

BIO-7 (prevent entrapment). Should any vertical tubes, such as solar mount poles, chain link fencing poles, or any other hollow poles be utilized on site, the vertical pole shall be capped immediately after installation to prevent avian fatalities.

Implementation of the above measures will ensure future development of the project site will have no impact on migratory birds and that the project will be in compliance with state and federal laws protecting nesting birds.

Project Impacts to Burrowing Owls from Construction Mortality

Potential Impacts. Evidence of past or present burrowing owl occupation of the project site was not observed during the transect survey conducted by LOA in July of 2014. However, suitable nesting habitat in the form of ground squirrel burrows is present. If burrowing owls were to move onto the site prior to project construction, ground disturbance from construction related activities could result in the mortality of burrowing owls, as they are known to retreat into their burrows ahead of approaching grading activity. These small raptors are protected under the federal Migratory Bird Treaty Act and Fish and Game Code. Mortality of individual birds would be a violation of state and federal law. Mortality of individual burrowing owls would constitute a potentially significant adverse environmental impact (Appendix C).

Mitigation Measures. Prior to project construction one or more of the following measures will be implemented as necessary, which will reduce impacts to the burrowing owl to a less than significant level:

BIO-8 (Take Avoidance Surveys). A take avoidance survey will be conducted by a qualified biologist for burrowing owls within 30 days of the onset of construction. This take avoidance survey will be conducted according to methods described in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). All suitable habitats of the site will be covered during this survey.

BIO-9 (Avoidance of Active Nests). If take avoidance surveys are undertaken during the breeding season (February through August) and active nest burrows are located within or near construction zones, a construction-free buffer of 250 feet should be established around all active owl nests. The buffer areas should be enclosed with temporary fencing, and construction equipment and workers should not enter the enclosed setback areas. Buffers

should remain in place for the duration of the breeding season. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.

BIO-10 (*Passive Relocation of Resident Owls*). During the non-breeding season (September through January), resident owls occupying burrows in areas proposed for development may be relocated to alternative habitat. The relocation of resident owls must be conducted according to a relocation plan prepared by a qualified biologist. Passive relocation will be the preferred method of relocation.

Compliance with the above mitigation measures will reduce impacts to burrowing owls to a less than significant level.

Project Impacts to San Joaquin Kit Foxes from Construction Mortality

Potential Impacts. The project site consists of lands that have experienced regular human disturbance for decades. Onsite habitat for this species is considered marginal, at best. Some ground squirrel burrows were observed on the site during LOA's July 2014 transect survey. During this survey no burrows of suitable size for kit fox use were observed and no sign of kit fox use was observed. While it is unlikely kit fox have or would take up residence on the project site under current site conditions, kit fox populations reported from the surrounding areas may pass through and possibly forage on the site from time to time during regular dispersal movements. If kit fox were present at the time of construction, then construction related activities have the potential to cause kit fox mortality. Kit fox mortality as a result of the project is a potentially significant impact.

Mitigation Measures. Prior to project construction the following measures will be implemented. The project should also implement protection measures as outlined in the "U.S. Fish and Wildlife Service standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance," provided in Appendix E of the Biological Report.

BIO-11 (*pre-construction surveys*). Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any project activity likely to impact the San Joaquin kit fox. These surveys will be conducted in accordance with the USFWS Standard Recommendations. The primary objective is to identify kit fox habitat features (e.g., potential dens and refugia) on the project site and evaluate their use by kit foxes. If an active kit fox den is detected within or immediately adjacent to the area of work, the USFWS shall be contacted immediately to determine the best course of action.

BIO-12 (*Avoidance*). Should kit fox be found using the site during preconstruction surveys the project will avoid the habitat occupied by kit fox in accordance with the USFWS Standard Recommendations and the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified.

BIO-13 (*Minimization*). Permanent and temporary construction activities and other types of project-related activities should be carried out in a manner that minimizes disturbance to kit foxes. In accordance with the USFWS Standard Recommendations, minimization measures include, but are not limited to:

- Restriction of project-related vehicle traffic to established roads, construction areas, and other designated areas, with a speed limit no greater than 20 mph;
- All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the Service has been consulted. If necessary, and under the direct supervision of a biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped;
- Restriction of rodenticide and herbicide use, if rodent control must be conducted, zinc phosphide shall be used because of a proven lower risk to kit fox; and proper disposal of food items and trash.

BIO-14 (Employee Education Program). Prior to the start of construction the applicant will retain a qualified biologist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the San Joaquin kit fox. This training will include a description of the kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the endangered species act; and a list of the measures being taken to reduce impacts to the species during project construction and implementation.

BIO-15 (Mortality Reporting). The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified in writing within three working days in case of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.

Implementation of these measures will reduce impacts to the San Joaquin kit fox to a less than significant level and would minimize the risk that construction activities during project development would result in mortality to individual kit foxes.

Implementation of mitigation measures **BIO-1** through **BIO-15** would reduce any potential impacts to sensitive or special status species to less than significant.

IV-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 Game or U.S. Fish and Wildlife Service?

No Impact. Riparian habitat is absent from the site. Because riparian and other habitats of special concern are absent, future project construction will have no impact on these habitats.

IV-c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Game (CDFG), and the California Regional Water Quality Control Board (RWQCB).

No aquatic or wetland features occur on the proposed Project site; therefore, jurisdictional waters are considered absent from the Project site. There will be no impact.

IV-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?

Less Than Significant Impact. The Project site does not serve as a fish or wildlife movement corridor. The only feature that could facilitate easy movement of native wildlife species is the adjacent canal. Both the canal and the access roads on either side will be outside project development areas and will remain unchanged. Therefore, this project will result in a less than significant effect on regional wildlife movements.

IV-e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. Construction and operation of the project would not conflict with any local policies or ordinances protecting biological resources. The local authority for the project area is detailed in the provisions of the 2035 Kings County General Plan. Objectives in the Resource Conservation Element of the General Plan address the preservation of environmentally sensitive areas that have existing natural watercourses, drainage basins, sloughs, or other natural water features, including maintaining the quality of existing wetland areas. Other than conserving native oaks and native trees associated with rivers, creeks, and streams, no specific tree preservation ordinances exist for the project area. Activities associated with the operation and maintenance of the proposed project would have no impact on sensitive biological resources protected by local ordinances.

IV-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?

No Impact. The proposed Project site is located within the San Joaquin Valley Habitat Conservation Plan (HCP) Area of the PG&E Operations and Maintenance Habitat Conservation Plan (PG&E). PG&E's San Joaquin Valley HCP, was implemented in early 2008, and covers almost all of PG&E's routine operations and maintenance, as well as minor new construction activities that will occur within the San Joaquin Valley for the next 30 years. There are no other approved habitat conservation plans, natural community conservation plans, regional or state habitat conservation plans in effect within the vicinity of the proposed Project Site. Because the Project proposes to connect to PG&E's 115Kv transmission lines, that portion of the Project at the connection to 115Kv

line may be covered under the PG&E HCP. PG&E will be responsible for the connection to their existing 115Kv transmission lines. The PG&E Operations and Maintenance HCP provides best management practices to ensure its facilities comply with the federal Endangered Species Act and the California Endangered Species Act (CESA). The Project would not conflict with the PG&E Operations and Maintenance HCP since appropriate mitigation is being required to ensure compliance with the Federal Endangered Species Act and the California Endangered Species Act. Therefore, the proposed Project would have no impact.

V. CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

Kings County is located in the southern San Joaquin Valley in an area known to have been the home of the Tachi tribe of Yokut Native Americans. The Tachi Yokuts lived north of Tulare Lake and westward to the hills near Coalinga. Archaeological evidence indicates that the historic Native American people were “the last in a series of hunting or hunting-gathering populations” to live in the Tulare Lake region. Artifacts collected from archaeological sites in the vicinity of the lake, primarily along a former (lower) lake shoreline, include over 325 Clovis-type lithic projectile points. Clovis points are typically considered index fossils of an early North American stone tool technology developed 11,000 to 13,000 years ago. Therefore, human occupation of the Tulare Lake margin probably began more than 10,000 years ago²⁰.

The 2035 Kings County General Plan identifies four sites in the County that are listed on the National Register of Historic Places, and three additional sites that have been designated as California Historical Landmarks. Three of the sites on the National Register are in Hanford: the Taoist Temple; the old County Courthouse; and the Carnegie Library. The fourth site is the Witt archaeological site near Dudley Ridge. The three California Historical Landmarks are the Mussel Slough Tragedy site south of Hardwick; the Kingston Town site north of Hardwick; and the El Adobe de los Robles Rancho west of Lemoore. These sites are located in the unincorporated portions of the County. The 2035 General Plan also identifies 16 additional historic sites of local importance. The sites include seven cemeteries and two churches located in Corcoran, Lemoore, Grangeville, and other rural areas in the northern County. Additional sites include the original site of Lemoore, Avenal Ranch, Kettleman Hills fossil beds, and First High School on the Kings River²¹. The proposed Project site is not located within any of these sites.

²⁰ Kings County 2035 General Plan EIR, Pg. 4.5-1

²¹ Ibid, Pg. 4.5-2

Regulatory Setting

Federal

Cultural resources are protected by several federal regulations, none of which are relevant to this project because it will not be located on lands administered by a federal agency and the project applicant is not requesting federal funding.

State

The project is subject to CEQA which requires public or private projects financed or approved by public agencies to assess their effects on historical resources. CEQA uses the term “historical resources” to include buildings, sites, structures, objects or districts, each of which may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance. CEQA states that if implementation of a project results in significant effects on historical resources, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed (CCR 15064.5, 15126.4). For the purposes of this CEQA document, a significant impact would occur if project implementation:

- Causes a substantial change in the significance of a historical resource
- Causes a substantial adverse change in the significance of an archaeological resource
- Disturbs any human remains, including those interred outside of formal cemeteries

Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined. CEQA guidelines define three ways that a property may qualify as a historical resource for the purposes of CEQA review:

- If the resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR)
- If the resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the PRC unless the preponderance of evidence demonstrates that it is not historically or culturally significant
- The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (CCR, Title 14, Division 6, Chapter 3, Section 15064.5(a))

Each of these ways of qualifying as a historical resource for the purpose of CEQA is related to the eligibility criteria for inclusion in the CRHR (PRC 5020.1(k), 5024.1, 5024.1(g)).

A historical resource may be eligible for inclusion in the CRHR if it:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage
- Is associated with the lives of persons important in our past

- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

Has yielded, or may be likely to yield, information important in prehistory or history Properties that area listed in or eligible for listing in the National Register of Historic Places are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC Section 5024.1(d)(1)).

Public Resources Code §5097.5: California Public Resources Code §5097.5 prohibits excavation or removal of any “vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands.” Public lands are defined to include lands owned by or under the jurisdiction of the state or any city, county, district, authority or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor.

California Health and Safety Code § 7050.5: Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner’s authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Paleontological Resources: Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources²².CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 (see above) also applies to paleontological resources.

Local

The 2035 Kings County General Plan Resource Conservation Element includes a goal with supporting objectives and policies related to archaeological, cultural, and historical resources. Those policies that are pertinent to the Project are included below:

RC Policy I1.1.3: Encourage the protection of cultural and archaeological sites with potential for placement on the National Register of Historic Places and/or inclusion in the California Inventory of Historic Resources.

²² Society of Vertebrate Paleontology. Conformable Impact Mitigation Guidelines Committee Policy Statements. <http://www.vertpaleo.org/ConformableImpactMitigationGuidelinesCommittee.htm>.

RC Policy I1.2.1: Participate in and support efforts to identify significant cultural and archaeological resources and protect those resources in accordance with PRC 5097.9 and 5097.993.

RC Policy I1.2.2: Continue to solicit input from local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.

RC Policy I1.2.3: Address archaeological and cultural resources in accordance with CEQA for discretionary land use applications²³.

IMPACT ASSESSMENT

V-a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less Than Significant With Mitigation Incorporation. The Project proposes the construction and operation of an approximately 60.39 acre solar generation facility. To meet CEQA requirements, Applied EarthWorks, Inc. (Æ) conducted a cultural resources study of the proposed solar generation facility location to determine whether cultural resources are present within the project area. The study included a records search to identify previously recorded resources and prior studies in the project area, a Sacred Lands File search by the Native American Heritage Commission, consultation with local Native American groups and representatives, and a pedestrian archaeological survey encompassing the proposed project area. No cultural resources were identified within the project area.

Although no cultural resources were identified in the survey, there would, nonetheless, be a potentially significant impact if historical resources were uncovered during Project construction; however, implementation of the following mitigation measures will reduce potential impacts to historical or archaeological resources to less than significant.

CUL-1: If, in the course of project construction or operation, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within one hundred (100) feet of the find shall be ceased and the Kings County Community

Development Agency shall be notified immediately. The project proponent shall retain a qualified archaeologist to assess the significance of the find and make mitigation recommendations, if warranted. The archaeologist shall document the resources using DPR 523 forms and file said forms with the California Historical Resources Information System (CHRIS). The resources shall be photo-documented and collected by the archaeologist for submittal to the Santa Rosa Rancheria's Cultural and Historical Preservation Department. The archaeologist shall be required to submit to the County for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.

²³ 2035 Kings County General Plan, p. RC-51

V-b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant With Mitigation Incorporation. Any impacts to archaeological resources have been discussed in Impact V-a. The mitigation measure in Impact V-a will ensure that any impacts will be less than significant.

V-c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. On July 21, 2014, a record search was conducted with the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS). No known paleontological resources exist within the Project area, nor are there any known geologic features in the Project area. Project construction will not be expected to disturb any paleontological resources not previously disturbed; however, the mitigation measure in Impact V-a will ensure that any impacts will be less than significant.

V-d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. No formal cemeteries or other places of human internment are known to exist on the Project site; however, in accordance with State Health and Safety Code Section 7050.5 and Public Resource Code Section 5097.98, if human remains are unearthed during project construction, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition of such remains. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC would then identify the person(s) thought to be the most likely descendent of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains. As such, any impacts will be less than significant.

VI. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Expose people or structures to 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

The Project is located in northern Kings County, in the southern section of California's Great Valley Geomorphic Province, or Central Valley. The Sacramento Valley makes up the northern third and the San Joaquin Valley makes up the southern two-thirds of the geomorphic province. Both valleys are watered by large rivers flowing west from the Sierra Nevada Range, with smaller tributaries flowing east from the Coast Ranges. Most of the surface of the Great Valley is covered by Quaternary (present day to

1.6 million years ago) alluvium. The sedimentary formations are steeply upturned along the western margin due to the uplifted Sierra Nevada Range²⁴.

Faulting and Seismicity

The Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no known faults cut through the local soil at the site. The nearest mapped principal fault is the San Andreas Fault, located over 42 miles southwest of the Project site. The San Andreas Fault is the dominant active tectonic feature of the Coast Ranges and represents the boundary of the North American and Pacific plates. The smaller Poso Creek fault is 40.5 southeast of the site. The Owens Valley fault group is on the east side of the Sierra Nevada and the White Wolf fault is south of Kings County²⁵.

Historically, earthquakes documented in Kings County have been of low local magnitude and have produced low level ground shaking²⁶. These include the 1857 Fort Tejon earthquake (Magnitude[M 7.9]), with an epicenter approximately seven miles west of the Kings County boundary in Monterey County, in the community of Parkfield. During this event, the San Andreas Fault ruptured for a length of approximately 225 miles between Parkfield and San Bernardino. The largest earthquake in southern California since the Fort Tejon earthquake was the 1952 Kern County earthquake (Magnitude 7.3), which occurred on the White Wolf fault. The epicenter occurred approximately 38 miles southeast of the Kings County boundary near Bakersfield and produced ground shaking felt over 200 miles away. The most recent earthquakes in Kings County occurred during the 1980s. The 1982 New Idria earthquake (Magnitude 5.4) and the 1983 Coalinga (Magnitude 6.5) earthquakes both occurred approximately 20 miles from the western border of Kings County. These two earthquakes were followed by the 1985 Kettleman Hills earthquake (Magnitude 6.1) with an epicenter located four miles west of the Kings County border, just north of the City of Avenal.

Soils

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey of Kings County, California²⁷ the Solar Facility site contains one soil type: Lemoore sandy loam, partially drained. The Lemoore sandy loam soil series originates from alluvium derived from igneous and sedimentary rock (see Appendix A). This soil type is somewhat poorly drained.

Regulatory Setting

Federal

Federal regulations for geology and soils are not relevant to this Project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the applicant is not requesting federal funding or a federal permit).

²⁴ Harden, D.R. 1998, California Geology, Prentice Hall, 479 pages

²⁵ Kings County 2035 General Plan EIR

²⁶ Ibid.

²⁷ United States Department of Agriculture, Natural Resource Conservation Service. Site accessed, July 2014.

State

Uniform Building Code: The California Code of Regulations (CCR) Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The California Building Code incorporates by reference the Uniform Building Code with necessary California amendments. The Uniform Building Code is a widely adopted model building code in the United States published by the International Conference of Building Officials. About one-third of the text within the California Building Code has been tailored for California earthquake conditions. In addition, this project is being evaluated pursuant to CEQA.

Local

This project is being evaluated pursuant to CEQA; however, there are no local regulations, plans, programs, or guidelines associated with geology and soils that are applicable to the proposed project.

IMPACT ASSESSMENT

VI-a) Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

VI-a-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.

Less Than Significant Impact. No substantial faults are known to occupy Kings County according to the Alquist-Priolo Earthquake Fault Zoning Maps and the State of California Department of Conservation. The closest known fault likely to affect the Project site is the Nunez Fault located about 36 miles to the west.

According to the Five County Seismic Safety Element (FCSSE) and the Kings County Seismic Safety Map (Figure HS-2), the Project site is located in the V-1 zone, defined as an area "of hard rock alluvium on valley floors". The FCSSE further states that, "The distance to either of the faults expected to be a source of shaking is sufficiently great that shaking should be minimal and the requirements of the Uniform Building Code Zone II should be adequate for normal facilities. The risk of the rupture of a known earthquake fault is less than significant.

VI-a-ii) Strong seismic ground shaking?

Less Than Significant Impact. Any impacts regarding strong seismic ground shaking have been discussed in Impact VI-a-i. The impact will be less than significant.

VI-a-iii) Seismic-related ground failure, including liquefaction?

No Impact. The project site is outside subsidence and liquefaction hazard zones identified in the Kings County General Plan Seismic Safety Map (Figure HS-2 of the 2035 Kings County General Plan Health and Safety Element). No subsidence-prone soils or oil or gas production is involved with the Project. There would be no impact.

VI-a-iv) Landslides?

No Impact. The Project site is outside the landslide hazard areas identified on the Kings County Seismic Safety Map (Figure HS-2 of the 2035 Kings County Health and Safety Element). No geologic landforms exist on or near the site that would result in a landslide event. There would be no impact.

VI-b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Soil erosion factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

The T factor is the soil loss tolerance (in tons per acre). It is defined as the maximum amount of erosion at which the quality of a soil as a medium for plant growth can be maintained. T factors are integer values of from 1 through 5 tons per acre per year. The factor of 1 ton per acre per year is for shallow or otherwise fragile soils and 5 tons per acre per year is for deep soils that are least subject to damage by erosion²⁸.

The entire Project site has a T factor rating of 5 proving that the site has an overall low T factor rating. Therefore the Project site will have a less than significant impact on soil erosion and loss of topsoil (Appendix A).

Although the impact of the Project on soil erosion and topsoil loss will be less than significant without mitigation, mitigation measures AG-1 and AG-2 described above will further reduce any potential impacts. Also, a Storm Water Pollution Prevention Plan (SWPPP) would be developed for the Project that would be implemented during both the construction and decommissioning periods. A SWPPP is required by law for all projects which disturb more than one acre in size.

As part of the SWPPP, the applicant would be required to provide the following Best Management Practices (BMPs) to further protect the topsoil:

Grading and Preservation of Existing Vegetation

Existing vegetation shall be preserved to the maximum extent practicable. Clearing and grubbing shall only be performed in areas where new foundations, utilities, or internal access drives are planned.

Soil Compaction

All soil compaction and subgrade preparation specifications will be per the site-specific recommendations of a California-licensed Geotechnical Engineer, and will be based on his field exploration prior to construction. Typically, trench backfill and subgrade compaction consists of either hand-held vibratory, rolled-drum equipment, or tracked equipment. Compaction would be 90 percent of maximum density as calculated by ASTM D1557 Modified Proctor.

Hydroseeding

Disturbed areas will be seeded upon completion of construction in order to protect exposed soils from erosion by wind and water. Upon completion of an earth disturbance activity, disturbed areas shall be covered with a minimum uniform 70 percent perennial vegetative cover, with a density capable of

²⁸ U.S. Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. Available online. Accessed 7/31/2014

resisting accelerated erosion and sedimentation. The vegetative cover will also be chosen to be appropriate for the proposed sheep grazing activities in the event the continued farming concept is chosen.

Straw Mulch

Straw mulch will be used to temporarily stabilize disturbed areas until soil can be prepared for revegetation. Straw mulch will be anchored immediately after application to prevent being windblown. Straw or hay will be “crimped” into the soils by running tracked machinery across the surface.

Non-Vegetative Stabilization

A non-combustible surface will surround the project site to function as a fire break as well as provide a stabilized surface for post-construction access. Non-vegetative stabilization methods, such as gravel mulch, will be used to provide a stabilized 12-foot wide access.

Stabilized Construction Entrance/Exit

A stabilized construction entrance/exit will be maintained at each construction site entrance/exit to reduce tracking of sediment as a result of construction traffic. The entrance/exit will be constructed per the detail included with the Erosion and Sediment Control Drawings (ESCDs).

Stabilized Construction Roadway

The construction access route into the site will also be maintained to prevent erosion and to control tracking of mud and soil material onto adjacent roads. The ESCDs will specify the construction access locations. A regular maintenance program will be conducted to replace sediment-clogged stabilization material with new stabilization material as required.

Entrance/Outlet Tire Wash

Tire wash racks will be installed if soil and/or traffic conditions on-site require washing the construction vehicle wheels prior to exiting the site to avoid excessive tracking of mud onto the roadway.

Street Sweeping and Vacuuming

Road sweeping and vacuuming will occur as necessary during construction to keep street surfaces clear of soil and debris. Washing sediment onto streets will not occur.

Dust Control

During windy conditions (forecast or actual wind conditions of approximately 25 mph or greater), dust control will be applied to disturbed areas, including construction access roads, to adequately control wind erosion. Water will be applied to disturbed soil areas of the project site using water trucks as required by weather conditions to control dust. Water application rates will be minimized as necessary to prevent runoff and ponding.

VI-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?

No Impact. There are no residences or structures on the Project site. Moreover, the site is flat in terrain and substantial grade change would not occur in the topography to the point where the Project would expose people or structures to potential substantial adverse effects on, or offsite, such as landslides, lateral spreading, subsidence, liquefaction or collapse. There would be no impact.

VI -d) Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

Less Than Significant Impact. The Project site is not located within an area with high soil expansion potential, according to the 2035 Kings County General Plan²⁹. The impact would be less than significant.

VI-e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project site is located in an area with a perched water table and engineering is required for any new septic system that is installed; however, the Project does not include the use of septic tanks or other alternative waste water disposal system. There would be no impact.

²⁹ 2035 Kings County General Plan. Figure HS-4. Pg. HS-13.

VII GREENHOUSE GAS EMISSIONS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

Various gases in the earth’s atmosphere play an important role in moderating the earth’s surface temperature. Solar radiation enters earth’s atmosphere from space and a portion of the radiation is absorbed by the earth’s surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases (GHGs) are transparent to solar radiation, but are effective in absorbing infrared radiation. Consequently, radiation that would otherwise escape back into space is retained, resulting in a warming of the earth’s atmosphere. This phenomenon is known as the greenhouse effect³⁰. Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO₂), methane (CH₄), ozone, nitrogen oxide (NOx), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation³¹. Global climate change is, indeed, a global issue. GHGs are global pollutants, unlike criteria pollutants and toxic air contaminants (TACs) (which are pollutants of regional and/or local concern). Global climate change, if it occurs, could potentially affect water resources in California. Rising temperatures could be anticipated to result in sea-level rise (as polar ice caps melt) and possibly change the timing and amount of precipitation, which could alter water quality. According to some, climate change could result in more extreme weather patterns; both heavier precipitation that could lead to flooding, as well as more extended drought periods. There is uncertainty regarding the timing, magnitude, and nature of the potential changes to water resources as a result of climate change; however, several trends are evident³².

Snowpack and snowmelt may also be affected by climate change. Much of California’s precipitation falls as snow in the Sierra Nevada and southern Cascades, and snowpack represents approximately 35 percent of the state’s useable annual water supply. The snowmelt typically occurs from April through

³⁰ U.S Bureau of Reclamation, Contra Costa Water District, and Western Area Power Administration. 2009. Los Vaqueros Reservoir Expansion Project. Environmental Impact Statement/Environmental Impact Report. State Clearinghouse No. 2006012037. February. Pages cites: 5-1 through 5-4.

³¹ Ibid.

³² Ibid.

July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended. As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt³³.

Regulatory Setting

Federal

The United States Environmental Protection Agency (USEPA) Mandatory Reporting Rule (40 CFR Part 98), which became effective December 29, 2009, requires that all facilities that emit more than 25,000 metric tons CO₂-equivalent per year beginning in 2010, report their emissions on an annual basis. On May 13, 2010, the USEPA issued a final rule that established an approach to addressing GHG emissions from stationary sources under the Clean Air Act (CAA) permitting programs. The final rule set thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration and title V Operating Permit programs are required for new and existing industrial facilities.

In addition, the Supreme Court decision in *Massachusetts v. EPA* (Supreme Court Case 05-1120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the CAA. On April 17, 2009, the USEPA found that CO₂, CH₄, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. This finding may result in the USEPA regulating GHG emissions; however, to date the USEPA has not proposed regulations based on this finding.

State

California is taking action to reduce GHG emissions. In June 2005, Governor Schwarzenegger signed Executive Order S-3-05 to address climate change and GHG emissions in California. This order sets the following goals for statewide GHG emissions:

- Reduce to 2000 levels by 2010
- Reduce to 1990 levels by 2020
- Reduce to 80 percent below 1990 levels by 2050

In 2006, California passed AB 32, the California Global Warming Solutions Act of 2006. The Act requires ARB to design and implement emission limits, regulations, and other feasible cost-effective measures to reduce statewide GHG emissions to 1990 levels by 2020. Senate Bill 97 was signed into law in August 2007. The Senate Bill required the Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resource Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions by July 1, 2009. On April 13, 2009, the OPR submitted to the Secretary for Natural Resources its recommended amendments to the State CEQA Guidelines for addressing GHG emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting the amendments. Following a 55-day public comment period and 2 public hearings, and in response to comments, the Natural Resources Agency proposed

³³ U.S. Bureau of Reclamation, Contra Costa Water District, and Western Area Power Administration. 2009. Los Vaqueros Reservoir Expansion Project. Environmental Impact Statement/Environmental Impact Report. State Clearinghouse No. 2006012037. February. Pages cites: 5-1 through 5-4.

revisions to the text of the proposed Guidelines amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the CCR. The Amendments became effective on March 18, 2010.

The AB 32 Scoping Plan contains the main strategies California will use to reduce GHG emissions that cause climate change. The scoping plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 cost of implementation fee regulation to fund the program. The first regulation adopted by the ARB pursuant to AB 32 was the regulation requiring mandatory reporting of GHG emissions. The regulation requires large industrial sources emitting more than 25,000 metric tons of CO₂ per year to report and verify their GHG emissions from combustion of both fossil fuels and biomass-derived fuels. The California Cap and Trade program is being developed and the ARB must adopt regulations by January 1, 2011. Finally, Governor Schwarzenegger directed the ARB, pursuant to Executive Order S-21-09, to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020.

Local

The 2035 Kings County General Plan adopted by the Kings County Board of Supervisors on January 26, 2010 recognizes the problem of air pollution and climate change within the San Joaquin Valley. The Air Quality Element of the General Plan fulfills a number of objectives that are very important to Kings County, including ensuring that growth occurs in ways that protect and enhance county residents' health, and complying with air quality regulations. General Plan Air Quality goals and objectives, with respect to GHGs, that are pertinent to the project include:

AQ Goal G1: Reduce Kings County's proportionate contribution of GHG emissions and the potential impact that may result on climate change from internal governmental operations and land use activities within its authority.

AQ Objective G1.1: Identify and achieve GHG emission reduction targets consistent with the County's proportionate fair share as may be allocated by ARB and the Kings County Association of Governments³⁴.

To assist Lead Agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project-specific GHGs on global climate change, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted the following: *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*, and the policy: *District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. The guidance and policy rely on the use of Best Performance Standards (BPS) to assess significance of project-specific GHG emissions on global climate change during the environmental review process, as required by CEQA. Projects implementing BPS would be determined to have a less than cumulatively significant impact on global climate change. Otherwise, demonstration of a 29 percent reduction in GHG emissions, from business-as-usual, is required to determine that a project would have a less than cumulatively significant impact.

³⁴ 2035 Kings County General Plan. Air Quality Element. Page AQ-30.

IMPACT ASSESSMENT

VII-a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Implementation of the proposed Project could contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to development is primarily associated with increases of CO₂ and other GHG pollutants, including CH₄ and N₂O, from mobile sources and utility usage. As discussed in Section III, Air Quality, of this IS/MND, because the proposed project would be operated remotely and would not involve typical operations that would involve sources of GHG emissions, such as utility usage, emissions associated with mobile sources would be the only operational source of air pollutant emissions.

It should be noted that construction-related GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. However, as the maximum emissions of GHG anticipated for the proposed project would occur during construction, the project’s estimated construction-related GHG emissions have been amortized over the expected lifetime of the proposed Project (estimated at 20 years) and included in the annual operational GHG emissions in order to present a conservative long-term analysis.

The proposed Project’s short-term construction-related and long-term operational GHG emissions were estimated using CalEEMod. Emissions (Appendix B) are expressed in annual metric tons of CO₂ equivalent units of measure (MTCO₂e), the common indicator for GHG emissions based on the global warming potential of the individual pollutants. According to CalEEMod, the proposed Project would result in annual GHG emissions, including amortized construction emissions, as presented in Table 13.

**Table 13
Unmitigated Project GHG Emissions**

Emission Source	GHG Emissions (MTCO ₂ e/yr)
Total Construction³⁵	344.7789
Total Operational	0.0001
Total Annual GHG Emissions	344.7790

Reductions in GHG emissions associated with the proposed project’s solar energy generation were estimated using the U.S. Environmental Protection Agency (USEPA) Green Power Equivalency Calculator³⁶ – a web-based calculator that provides the approximate amount of GHG emissions savings, as well as equivalency statements such as an equivalent number of passenger vehicles, homes, or coal plants. Based on the specific system design, the proposed project is estimated to produce 16,000,000 kWh/yr (16,000 MWh/yr) over the lifetime of the project. According to the USEPA’s Green Power Equivalency Calculator, the solar energy generated during operation of the proposed project would avoid an estimated 11,033 MTCO₂e per year – equivalent to GHG emissions from approximately 2,323 passenger vehicles per year, 1,241,456 gallons of gasoline consumed, 25,658 barrels of oil consumed, or the electricity use of 1,518 average American homes for one year.

³⁵ Amortized total construction emissions (357.11 MTCO₂e) over the anticipated 20-year lifetime of the Project (357.11 MTCO₂e / 20 years = 17.85 MTCO₂e/yr)

³⁶ <http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results> site accessed August 2014.

Even with the temporary emissions of GHG associated with construction activities amortized over the lifetime of the Project, the overall decrease in GHG emission that would result from solar energy generation of the proposed Project would more than offset the GHG emission anticipated from construction and operation of the proposed Project. An overall net negative annual GHG emission of approximately 10,688.222 MTCO₂e would occur with implementation of the proposed Project (i.e., 11,033 MTCO₂e per year – 344.7789 MTCO₂e per year). Because GHG emissions would be negative overall, the proposed Project would be considered to have a positive impact on global climate change and would be beneficial to the environment. Therefore, the proposed Project would not generate GHG emissions, either directly or indirectly, that may result in a significant impact on the environment. Therefore, impacts related to GHG emissions and global climate change would be considered less than significant.

VII-b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. In August 2008, the SJVAPCD adopted the Climate Change Action Plan (CCAP). The CCAP directed the District Air Pollution Control Officer to develop guidance to assist lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project specific greenhouse gas (GHG) emissions on global climate change. Accordingly, on December 17, 2009, the SJVAPCD adopted the Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. The guidance relies on the use of performance-based standards, otherwise known as Best Performance Standards (BPSs), to assess significance of project-specific GHG emissions on global climate change. Use of BPSs is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPSs would be determined to have a less-than significant individual and cumulative impact on global climate change and would not require project-specific quantification of GHG emissions. Otherwise, demonstration that a project's emissions would be reduced or mitigated by 29 percent (from business as usual [BAU] levels by 2020), consistent with the GHG emission reduction targets established in the Assembly Bill (AB) 32 Scoping Plan would be required in order to determine that a project would have a less-than-significant individual and cumulative impact on global climate change. It should be noted that the SJVAPCD's guidance does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project-related impacts on global climate change.

It should be noted that the BPSs included in the SJVAPCD guidance for development projects are design measures applicable primarily to commercial or residential developments, such as affordable housing, green building features, and vehicle miles travelled (VMT) reduction measures including alternative transportation and parking features. As such, the BPSs are not applicable to a renewable energy project. In addition, as solar projects are a relatively new type of development, a baseline or BAU level has not been established from which to measure a 29 percent reduction in GHG emissions. Consequently, the analysis in this IS/MND concentrates on the proposed project's incremental contribution of GHG emissions towards global climate change in comparison to the project's generation of solar energy, which would contribute to an overall reduction in GHG emissions by reducing the use of typical energy resources in the area such as fossil fuels including oil, coal, and natural gas. Because GHG emissions would be negative overall, the proposed Project would be considered to have a positive impact on global climate change and would be beneficial to the environment. Therefore, the proposed Project would not generate GHG emissions, either directly or indirectly, that may result in a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

The site has historically been used as agricultural land and grazing land, and is currently vacant. The application of agricultural chemicals, including but not limited to herbicides and pesticides, is anticipated

to have occurred at portions of the site. The routine and appropriate application of agricultural chemicals is not considered a recognized environmental condition.

Regulatory Setting

Federal

United States Environmental Protection Agency (USEPA)

The USEPA provides leadership in the nation's environmental science, research, education, and assessment efforts with the mission of protecting human health and the environment. The USEPA works to develop and enforce regulations that implement environmental laws enacted by Congress. It is also responsible for researching and setting national standards for a variety of environmental programs and delegates to states the responsibility for issuing permits and for monitoring and enforcing compliance. The agency also performs environmental research, sponsors voluntary partnerships and programs, provides direct support through grants to state environmental programs, and advances educational efforts regarding environmental issues. The USEPA develops and enforces regulations per Title 40 of the U.S. Code of Federal Regulations (CFR) that span many environmental categories, including hazardous materials. Specific regulations include those regarding asbestos, brownfields, toxic substances, underground storage tanks, and Superfund sites, as discussed below.

Resource Conservation and Recovery Act (RCRA)

The RCRA (codified 42 United States Code 6901 et seq.) gives the USEPA the authority to control hazardous waste from — including the generation, transportation, treatment, storage, and disposal of hazardous waste. The RCRA also sets forth a framework for the management of nonhazardous solid wastes. The 1986 amendments to the RCRA enabled the Environmental Protection Agency to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

The federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to the RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for the USEPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program³⁷.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

The CERCLA (codified 42 United States Code 9601-9675) provides a federal superfund to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the United States Environmental Protection Agency was given power to seek out those parties responsible for any release and assure their participation in the cleanup. The USEPA is authorized to implement CERCLA in all 50 states and in U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies. The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue

³⁷ USEPA. Summary of the Resource Conservation and Recovery Act. <http://www2.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act> . Accessed August 2014.

cleanup activities around the country. Several site-specific amendments, definition clarifications, and technical requirements were added to the legislation, including additional enforcement authorities³⁸.

This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA has established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and, established a trust fund to provide for cleanup when no responsible party could be identified.

The law authorizes two kinds of response actions: Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response. Long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening. These actions can be conducted only at sites listed on EPA's National Priorities List (NPL).

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the NPL.

Occupational and Safety Health Act (OSHA)

Congress passed the OSHA in 1970 (codified 29 United States Code Section 651 – 678) to ensure worker and workplace safety. The goal was to ensure that employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. OSHA is a division of the U.S. Department of Labor that oversees the administration of the act and enforces standards in all 50 states.

U.S. Department of Transportation (US DOT)

Federal Hazardous Materials Transportation Law and Hazardous Materials Regulations The federal hazardous materials transportation law (federal hazmat law), 49 U.S.C. Section 5101 et seq., is the basic statute regulating hazardous materials transportation in the United States. Section 5101 of the federal hazmat law states that the purpose of the law 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.

The Hazardous Materials Regulations (HMR), which implements the federal hazmat law, governs the transportation of hazardous materials by highway, rail, vessel, and air. The HMR address hazardous materials classification, packaging, hazard communication, emergency response information, and training. The Pipeline and Hazardous Material Safety Administration (PHMSA) also issues procedural regulations, including provisions on registration and public sector training and planning grants (49 CFR Parts 105, 106, 107, and 110). The Pipeline and Hazardous Material Safety Administration issues the HMR³⁹.

³⁸ USEPA. Summary of the Resource Conservation and Recovery Act. <http://www.epa.gov/tribalportal/laws/cercla.htm>. Accessed August 2014.

³⁹ Pipeline and Hazardous Materials Safety Administration. Hazmat Law Overview. http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_D18F206030FED6A51FBE327BDB6C2301C03C0500/filename/Hazmat%20Law%20Overview.pdf. Accessed August 6, 2014.

The Federal Motor Carrier Safety Administration

The Federal Motor Carrier Safety Administration (FMCSA) was established within the Department of Transportation on January 1, 2000, pursuant to the Motor Carrier Safety Improvement Act of 1999 (49 U.S.C. 113). Formerly a part of the Federal Highway Administration, the Federal Motor Carrier Safety Administration's primary mission is to prevent commercial motor vehicle-related fatalities and injuries. Activities of the Administration contribute to ensuring safety in motor carrier operations through strong enforcement of safety regulations; targeting high-risk carriers and commercial motor vehicle drivers; improving safety information systems and commercial motor vehicle technologies; strengthening commercial motor vehicle equipment and operating standards; and increasing safety awareness. To accomplish these activities, the Administration works with Federal, State, and local enforcement agencies, the motor carrier industry, labor and safety interest groups, and others⁴⁰.

State

California Environmental Protection Agency (CalEPA): The California Environmental Protection Agency (CalEPA) was created in 1991 by Governor's Executive Order. The six boards, departments, and office were placed under the CalEPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of State resources. The mission of CalEPA is to restore, protect, and enhance the environment to ensure public health, environmental quality, and economic vitality under Title 22 of the California Code of Regulations (CCR)⁴¹

Unified Program: The Unified Program (codified CCR Title 27, Division 1, Subdivision 4, Chapter 1, Sections 15100- 15620) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following six environmental and emergency response programs⁴²:

- Hazardous Waste Generator (HWG) program and Hazardous Waste On-site Treatment activities;
- Aboveground Storage Tank (AST) program Spill Prevention Control and Countermeasure Plan requirements;
- Underground Storage Tank (UST) program;
- Hazardous Materials Release Response Plans and Inventory (HMRRP) program;
- California Accidental Release Prevention (CalARP) program;
- Hazardous Materials Management Plans and Hazardous Materials Inventory Statement (HMMP/HMIS) requirements.

The Secretary of CalEPA is directly responsible for coordinating the administration of the Unified Program. The Unified Program requires all counties to apply to the CalEPA Secretary for the certification of a local unified program agency. Qualified cities are also permitted to apply for certification. The local Certified Unified Program Agency (CUPA) is required to consolidate, coordinate, and make consistent the administrative requirements, permits, fee structures, and inspection and enforcement activities for these six program elements in the county. Most CUPAs have been established as a function of a local environmental health or fire department.

Hazardous Waste Management Program: The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement, and Unified Program activities in

⁴⁰ FMCSA. About Us. <http://www.fmcsa.dot.gov/mission/about-us>. Site accessed: August 2014.

⁴¹ California Environmental Protection Agency, Site accesses: August 2013, <http://www.calepa.ca.gov>

⁴² California Environmental Protection Agency, Site accesses: August 2013, <http://www.calepa.ca.gov/cupa/>

accordance with California Health and Safety Code Section 25135 et seq. The main focus of HWMP is to ensure the safe storage, treatment, transportation, and disposal of hazardous wastes.

State Water Resources Control Board (SWRCB): The State Water Resources Control Board (SWRCB) was created by the California legislature in 1967. The mission of SWRCB is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables SWRCB to provide comprehensive protection for California's waters.

California Department of Industrial Relations – Division of Occupational Safety and Health (Cal OSHA): In California, every employer has a legal obligation to provide and maintain a safe and healthful workplace for employees, according to the California Occupational Safety and Health Act of 1973 (per Title 8 of the CCR). The Division of Occupational Safety and Health (Cal/OSHA) program is responsible for enforcing California laws and regulations pertaining to workplace safety and health and for providing assistance to employers and workers about workplace safety and health issues. Cal/OSHA regulations are administered through Title 8 of the CCR. The regulations require all manufacturers or importers to assess the hazards of substances that they produce or import and all employers to provide information to their employees about the hazardous substances to which they may be exposed.

Local

The 2035 Kings County General Plan Health and Safety Element includes an objective and policy related to environmental hazards and hazardous materials. The policy that is pertinent to the Project is included below:

HS Objective B1.5 Ensure adequate protection of County residents from new generations of toxic or hazardous waste substances.

HS Policy B1.5.1: Evaluated development applications to determine the potential for hazardous waste generation and be required to provide sufficient financial assurance that is available to the County to cover waste cleanup and/or site restoration in instances where the site has been abandoned or the business operator is unable to remove hazardous materials from the site.

IMPACT ASSESSMENT

VIII-a Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact Project construction will require the transport and use of small quantities of hazardous materials in the form of gasoline, diesel and oil. The Project would not require long-term storage, treatment, disposal or transport of significant quantities of hazardous materials. The hazardous materials anticipated to be used are small volumes of petroleum hydrocarbons and their derivatives (e.g., gasoline, oils, lubricants and solvents) required to operate the construction equipment. These materials would generally be used in excavation equipment, generators, and other construction equipment and would be contained within vessels engineered for safe storage. Due to the rate of installation, storage of significant quantities of these materials at the construction site is not anticipated. Fuel is anticipated to be provided to the construction equipment on a daily basis and would be mobilized from an off-site location.

Because the Project will not involve the transport, storage, or use of significant quantities of synthetic hazardous materials, a hazardous materials business plan would not be required by the Certified Uniform Program Agency as the Project would not be handling hazardous materials in quantities equal to or greater than 55 gallons of liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas⁴³. Therefore, there would be no impacts from the use of synthetic hazardous materials due to implementation of the Project. However; there is the potential for small leaks or spills due to refueling of the construction equipment. The proposed Project would develop a SWPPP and utilize standard construction Best Management Practices (BMPs) as described in Impact VI-b to protect water quality in response to emergency spills to further reduce the potential for the release of construction-related fuels and other hazardous materials to storm water contamination.

VIII-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?

Less Than Significant With Mitigation Incorporation. Project construction and operation will require the use of heavy equipment. The construction activities will not involve the use of significant amounts of hazardous compressed gas. However, construction activities will generate dust. Soil on the Project site may contain fungal spores. When the soil is disturbed by digging, vehicles, or by the wind, the fungal spores may become airborne, and may be inhaled by people on or near the site. Some fungal spores are known to cause Valley Fever. While Valley Fever is not a hazardous material, it could potentially create a hazardous situation for workers if present on the site. In order to minimize the risk of Valley Fever, the generation of fugitive dust should be reduced to the greatest extent feasible. Such reduction can best be achieved by utilizing soil stabilizers before and during ground disturbing activities as described in Table 4 and Impact VII-b. Prior to the initiation of construction a Fugitive Dust Control Plan outlining the methods to reduce dust is required by the SJVAPCD to demonstrate compliance with its Regulation VIII as described in Table 4.

It is not known at this time if the Project site soils contain the fungus that may cause Valley Fever. Nonetheless, a potentially significant health risk impact associated with contraction of Valley Fever could result if said fungal spores were in the soil, released as a result of construction and operation activities, and inhaled by workers, employees or nearby sensitive receptors.

Implementation of the following mitigation measures will reduce potential impacts pertaining to the release into the environment of hazardous materials and dust to less than significant.

HAZ-1: Prior to construction and as a condition of receiving building permits, the constructor and operator of the Project shall develop an Injury and Illness Prevention Program and project-specific health and safety plans. These plans should include but not be limited to the following:

- Train workers on the applicable evacuation activities to protect workers from potential hazards posed by hazardous wastes;
- Compliance with the SJVAPCD's Regulation VIII and SJVAPCD-approved Dust Control Plan;

⁴³ California Governor's Office of Emergency Services.
<http://www.caloes.ca.gov/HazardousMaterials/Pages/Business-Plan.aspx> Site accessed September 2014.

- Train workers and supervisors on how to recognize symptoms of illness related to Valley Fever;
- Provide pre-construction training and instruction regarding requirements for on-site construction pursuant to the approved Dusts Control Plan;
- Limit workers' exposure to outdoor dust in disease-endemic areas;
- When soil will be disturbed by heavy equipment or vehicles, wet the soil with water or other permitted soil stabilizer before disturbing it and continuously wet it while digging to keep dust levels down;
- Heavy equipment, trucks, and other vehicles generating heavy dust should have enclosed cabs equipped with air filters; and
- When exposure to dust is unavoidable, provide NIOSH-approved respiratory protection to all employees.

The constructor and operator shall present documentation to the County upon successful completion of the plan.

VIII-c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The nearest school, Central Elementary, is approximately 0.9 miles southeast of the Project site. The Project involves construction of a solar energy generation facility and will not emit hazardous emissions, involve hazardous materials, or create a hazard to the schools in any way. There will be no impact.

VIII-d) Be located on a site which 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?

No Impact. The Project does not involve land that is listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control per a review of "Identified Hazardous Waste Sites", conducted on July 31, 2014 by Provost & Pritchard Consulting Group. Additionally, there are no known hazardous materials sites within two miles of the proposed Project site. There will be no impact.

VIII-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 for people residing or working in the project area?

No Impact. The proposed Project is not found within any airport land use plan. There are no public airports or public use airports within two miles of the Project site. The nearest public airport is the Hanford Municipal Airport, which is located approximately 9.8 miles to the northeast of the proposed Project site. Therefore, there will be no impact.

VIII-f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. There is no private airstrip in the vicinity of the project area. The nearest private airstrip is the Jones Farm Airport, located more than 4 miles from the project site.

VIII-g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project does not cross any publicly accessed routes, and therefore would not interfere with implementation of an emergency response plan or evacuation.

VIII-h) 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?

Less than Significant Impact. According to the California Department of Forestry and Fire Prevention, Fire Hazard Severity Zones Map, the proposed Project site is not located in a Very High Fire Hazard Severity Zone. Therefore, the Project will not be exposed to risks from wildland fires. Additionally, the area is routinely maintained for weed control. To further reduce impacts the Project will include a pest management plan and weed abatement plan, as required by section 1908.H.5 of the Zoning Ordinance, to avoid fire hazard and protect adjacent farmland from nuisances and disruption. The impact would be less than significant.

IX. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

The climate in Kings County can be classified as Mediterranean with average rainfall rates of 7.6 inches annually, occurring primarily between November and April⁴⁴.

Hydrology in the Project vicinity is associated with the Tulare Lake Basin, one of three main subareas in the County. The Tulare Lake Basin is in the northern alluvial fan and basin subarea characterized by southwest to south flowing rivers, creeks, and irrigation canal systems that convey water from the Sierra Nevada to the west toward the Tulare Lake Bed. The southern portion of the basin is internally drained by the Kings, Kaweah, Tule, and Kern Rivers⁴⁵. The Tulare Lake Basin comprises the drainage area of the San Joaquin Valley south of the San Joaquin River, and is essentially a closed basin because surface water drains north into the San Joaquin River only in years of extreme rainfall.

A canal runs along the eastern side of the proposed Project site, cutting across the southeastern corner of the site and continuing along the southern portion of the Project site.

Regulatory Framework

Federal

Clean Water Act: The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

State

State Water Resources Control Board: The State Water Resources Control Board (SWRCB), located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The Project site is located within the Central Valley Region.

Regional Water Quality Board: The Regional Water Quality Control Board (RWQCB) administers the NPDES storm water-permitting program in the Central Valley region. Construction activities on one acre

⁴⁴ 2035 Kings County General Plan, Health and Safety Element, p. HS-2

⁴⁵ California Department of Water Resources. California's Groundwater Bulletin 118. 2004. Tulare Lake Hydrologic Region, San Joaquin Valley Groundwater Basin.
http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/5-22.11.pdf Site accessed August 2013.

or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The plan will include specifications for Best Management Practices (BMPs) that will be implemented during project construction to control degradation of surface water by preventing the potential erosion of sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established by the RWQCB in the California Storm Water Best Management Practice Handbook (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP will describe measures to prevent or control runoff degradation after construction is complete, and identify a plan to inspect and maintain these facilities or project elements.

In addition, this proposed Project is being evaluated pursuant to CEQA.

Local

The 2035 Kings County General Plan Health and Safety Element has the following goal and policies related to flood hazards:

HS GOAL A4: Prevent unnecessary exposure of people and property to flood damage.

HS Policy A4.1.1: Review new development proposals against current Federal Emergency Management Agency (FEMA) digital flood insurance rate maps and California Department of Water Resource special flood hazard maps to determine project site susceptibility to flood hazard.

HS Policy A4.1.5: Regulate development, water diversion, vegetation removal, and grading to minimize any increase in flood damage to people and property.

HS Policy A4.1.7: Consider and identify all areas subject to flooding in the review of all land divisions and development projects.

IMPACT ASSESSMENT

IX-a Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. The proposed Project site has a canal that runs along the eastern edge of the site, cuts across the southeastern corner and then continues along the southern end of the site. There is also a private water skiing lake that abuts the property along the eastern edge. Because of raised levee walls on the canal and water ski lake, runoff from the project would not be able to flow into the canal or the water skiing lake. Additionally, the proposed Project site will largely remain a permeable surface, and the amount of water used for panel washing will be less than 0.05 acre feet per year. Therefore, the Project would not violate any water quality standards and would not impact waste discharge requirements. The impact would be less than significant.

IX-b) 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 (e.g., the production rate of pre-existing nearby wells would drop to

a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. The Project site is located in the Tulare Lake Basin, an area affected by overdraft. The Project site is located within the Tulare Lake Sub-basin portion of the regional area; however, no water would be drawn from the local groundwater for construction or operation of the facility. Water for construction, estimated to be approximately 250 gallons per day of construction would be obtained from a third-party. Small volumes of water (approximately 0.05 acre feet per year) would be procured offsite to wash the panels approximately four times per year. Therefore, the Project would not impact any groundwater resources. Pursuant to California Water Code Section 10912(a)(5)(B) the Project is not required to complete a Water Supply Assessment as the Project does not exceed the threshold of 75 ac/ft of water per year. There would be no significant impact on groundwater recharge because water drainage patterns would not be modified other than being slightly delayed by dripping down solar panel surfaces. At a small scale rainfall patterns will be slightly modified by being displaced by a maximum of 9-feet horizontally. In the spaces (about 8.5-feet wide) between panel rows, rain would contact the surface normally. Any potential impacts on groundwater supplies would be less than significant.

IX-c) 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 which would result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. Drainage patterns would minimally change as a result of Project build-out. As less than one acre of the 60.39-acre area would be covered in impermeable surfaces, runoff patterns would not significantly change. Any impacts would be less than significant.

IX-d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact. Any impacts regarding the alteration of drainage patterns to increase runoff water that would potentially induce flooding have been discussed in the impact analysis for Impact IX-c. Any impacts would be less than significant.

IX-e) 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?

Less Than Significant Impact. Any impacts regarding the creation or contribution to runoff water that would potentially exceed the capacity of existing stormwater drainage systems have been discussed in the impact analysis for Impact IX-c. Any impacts would be less than significant.

IX-f) Otherwise substantially degrade water quality?

Less Than Significant Impact. Any impacts to water quality have been discussed in the impact analysis for Impact IX-a. Any impacts would be less than significant.

IX-g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) for Community Number 06031C0325C dated June 16, 2009, the entire Project site is located in Zone X, outside the floodplain. The nearest zone A (100 year flood, no base flood elevations determined) is approximately 1.4 miles south of the site (see Figure 6). Additionally, the construction of housing is not a part of the proposed Project. There would be no impact with regard to placing housing in flood hazard areas that are prone to flood related events.

IX-h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. As discussed in the analysis of Impact IX-g, the site is not located within Zone A. The nearest zone A (100 year flood, no base flood elevations determined) is approximately 1.4 miles south of the site (see Figure 6). Therefore, no flood flows would be impeded or redirected by the proposed Project, there would be no impact.

IX-i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

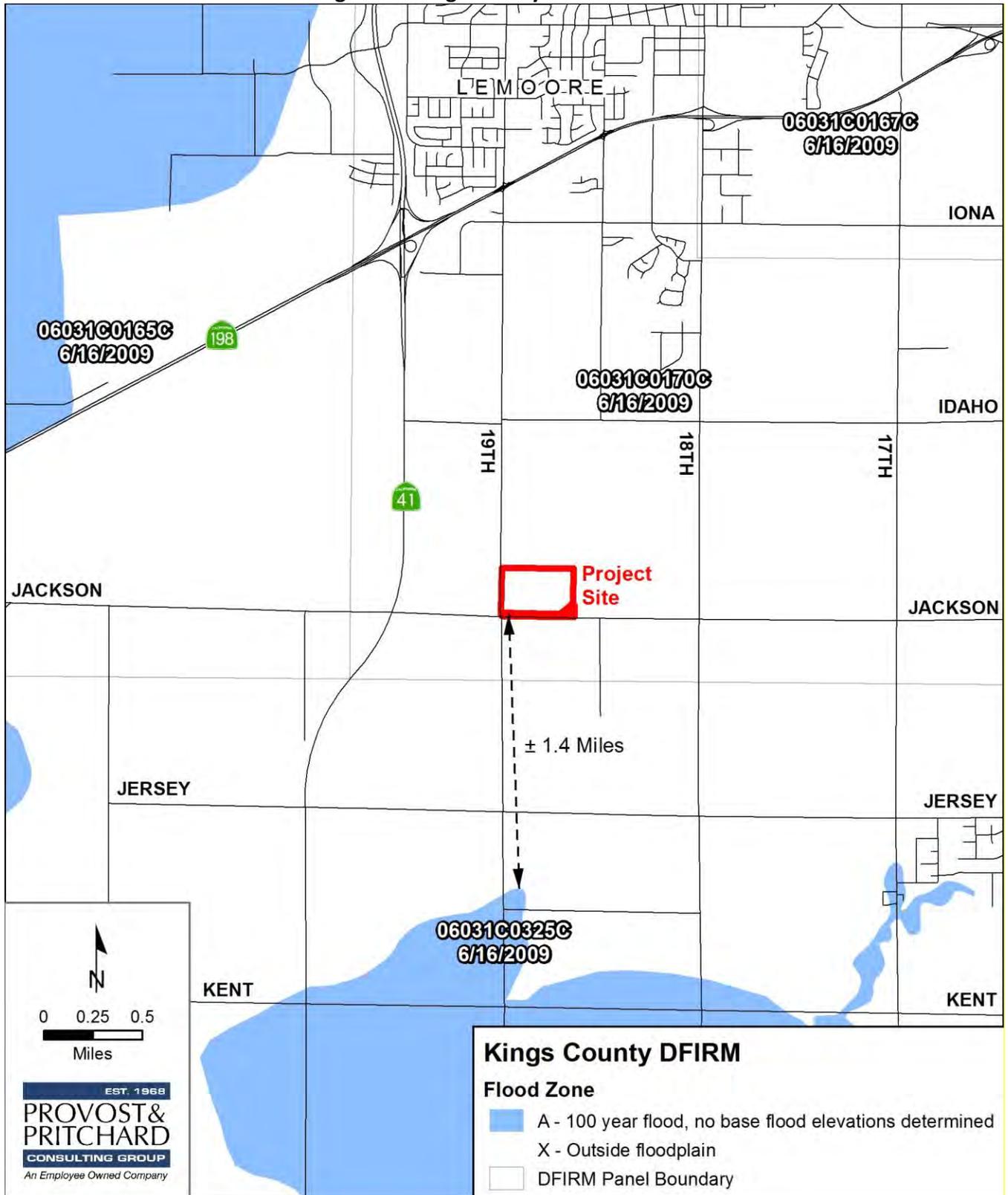
Less Than Significant Impact. Figure HS-7 (Dam Inundation Areas) of the Health and Safety Element of the 2035 Kings County General Plan shows that the project site is not located in the Dam Inundation Area for Terminus Dam. The proposed Project site is within the inundation area for Pine Flat Dam. It is anticipated that if Pine Flat Dam failed while at full capacity, its floodwaters would arrive in Kings County within approximately five hours. However, the chances of dam failure, while at full capacity, is considered remote⁴⁶. The Dam itself is located approximately 47 miles from the Proposed Project site. The south fork of the Kings River is located over six miles from the proposed Project site. Due to the site not being inside the inundation area for Terminus Dam or the five hour inundation area for Pine Flat Dam, the impact would be less than significant. The proposed Project will not have any personnel stationed on-site.

IX-j) Inundation by seiche, tsunami, or mudflow?

No Impact. The nearest large body of water is Lake Success, which is located approximately 45 miles to the east of the Project site. Due to the lengthy distance between the lake and the Project site, there would be no potential for seiche or tsunami to occur. There would be no impact.

⁴⁶ County of Kings 2035 General Plan, Health and Safety Element. Pg. HS-15, 16.

Figure 6 - Kings County DFIRM



X. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

The Project site is located in northern Kings County south of the City of Lemoore and consists of three parcels totaling approximately 60 acres (Assessor’s Parcel Numbers (APNs) 024-080-038, 024-080-037 and 024-080-036). Kings County is located in the San Joaquin Valley portion of the Great Central Valley of California that lies south of the Sacramento-San Joaquin Delta, and is comprised of 1,391 square miles. Kings County is bordered by Fresno County to the north and west; Kern County to the south; Tulare County to the east; and Monterey County and San Luis Obispo County to the southwest. There are four incorporated cities within Kings County: Avenal, Corcoran, Hanford, and Lemoore. Several unincorporated communities are also located within the County, as well as the Naval Air Station Lemoore.

The Project site consists currently of vacant/fallow land and has been previously used for agricultural activities and soil excavation. The site is designated as General Agriculture in the County’s 2035 General Plan and is zoned by Kings County as AG-20 – General Agricultural-20 District. Land uses surrounding the site are agricultural, rural residences, grazing and private recreational uses. No forest or timber land is present at the project site or in the project vicinity.

Regulatory Setting

Federal

Federal regulations for land use are not relevant to this Project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the project applicant is not requesting federal funding or a federal permit).

State

This proposed Project is being evaluated pursuant to CEQA; however, there are no state regulations, plans, programs, or guidelines associated with land use and planning that are applicable to the proposed Project.

Local

2035 Kings County General Plan

The 2035 Kings County General Plan Land Use Element has the following objective and policy related to land uses in agricultural areas:

LU Policy B7.1.3: Power generation facilities for commercial markets shall be allowed and regulated through the Conditional Use Permit approval process, and include thermal, wind, and solar photovoltaic electrical generating facilities that produce power. Hydroelectric and cogeneration facilities shall also be regulated as conditional uses except as follows:

1. The installation of hydroelectric generating facilities, with a capacity of 5 megawatts or less, in connection with existing dams, canals, and pipelines shall be regulated as permitted uses, subject to issuance of a site plan review that is categorically exempt pursuant to Section 15328 of the CEQA Guidelines.
2. The installation of cogeneration equipment with a capacity of 50 megawatts or less at existing facilities shall be regulated as permitted uses, subject to issuance of a site plan review, which is categorically exempt pursuant to Section 15329 of the CEQA Guidelines.

IMPACT ASSESSMENT

X-a) **Would the project physically divide an established community?**

No Impact. The proposed Project is located in an agricultural area in northern Kings County. The nearest established community is the City of Lemoore, immediately north of the Project site. The proposed Project will not physically divide any established community. There will be no impact.

X-b) **Would the project Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

No Impact. The proposed Project site is located within Kings County. The Kings County General Plan designates the Project for general agricultural uses and the Zoning for the site is AG-20 – General Agricultural-20 District. As described in impact section II-b, the proposed Project is consistent with the underlying zoning with the approval of a Conditional Use Permit.

Article 19, Section 1908.H of the Kings County Zoning Ordinance states that the when an application is submitted for a solar photovoltaic electrical facility for commercial sale and distribution of electrical power, the following findings shall be made before granting a conditional use permit (a discussion of the project's consistency with each finding is included in *italics* below each finding):

1. The proposed site is 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 combination thereof.

Figure RC-13 “Priority Agricultural Land,” in the Resource Conservation Element of the 2035 Kings County General Plan designates the project site as Very Low Priority Land.

2. The proposed site is located within 1 mile of an existing 60 KV or higher utility electrical line.

An existing 60 KV power line is approximately 0.98 miles south of the project site.

3. Agricultural mitigation is 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 that coincides with the life of the project. Agricultural mitigation on land designed “Medium-High” or higher priority land shall preserve an equivalent amount of agricultural acreage at a ratio of 2:1.

Agricultural mitigation does not apply because no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be affected by the project. The entire project site is designated as Grazing land by the FMMP.

4. The project includes 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.

The project would provide a reclamation plan and financial assurance acceptable to the County, prior to the issuance of a building permit, which ensures the return of the land to a farmable state after completion of the project life prior to issuance of construction permits.

5. The project includes a pest management plan and weed abatement plan to protect adjacent farmland from nuisances and disruption.

The project would provide a pest management plan and weed abatement plan to protect adjacent farmland from nuisances and disruption prior to issuance of construction permits. The weed abatement plan would ensure that combustible vegetation or agricultural products on and around the project boundary would be actively managed by the project owner or its affiliates during both the construction and operation phases of the project to minimize fire risk. Combustible products would be limited in height or removed through mechanical equipment. Herbicides may be applied if warranted by site conditions as specified in the weed abatement plan. Additionally, the project would include fire breaks around the project boundary in the form of driveways subject to county standards. The pest management plan would reduce anticipated nuisance impacts to adjacent farmland from pests inhabiting project facilities. Rodenticide and herbicide would be selected and used in a manner that minimizes impacts to protected biological species. 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 qualitative performance goal of nuisance reduction to adjacent farmland.

6. The project establishes internal access roads that do not exceed a maximum distance of 300 feet between lanes.

The project establishes internal gravel access driveways that do not exceed a maximum separation distance of 300 feet.

7. The project includes a solid waste management plan for site maintenance and disposal of trash and debris.

The project would provide a solid waste management plan for site maintenance and disposal of trash and debris prior to issuance of construction permits.

8. The project site is not located on Williamson Act or Farmland Security Zone contracted land, unless it meets the principles of compatibility under Government Code Section 51238.1(a). Otherwise, the contract is proposed for cancellation or is eligible and converts to a Solar Easement.

The project site is not located on Williamson Act contracted land.

As demonstrated above, the proposed project is consistent with the CUP findings for solar projects set forth in Section 1908.H of the Kings County Zoning Ordinance. Accordingly, the project applicant is requesting a CUP for the proposed project based upon the requirements of the Kings County Zoning Ordinance. A General Plan amendment is not required; therefore, upon approval of the requested CUP, the project would not conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project. There is no impact.

X-c) Would the project Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The proposed project site is located within the San Joaquin Valley Habitat Conservation Plan (HCP) Area of the PG&E Operations and Maintenance Habitat Conservation Plan (PG&E). PG&E's San Joaquin Valley HCP, was implemented in early 2008, and covers almost all of PG&E's routine operations and maintenance, as well as minor new construction activities that will occur within the San Joaquin Valley for the next 30 years. There are no other approved habitat conservation plans, natural community conservation plans, regional or state habitat conservation plans in effect within the vicinity of the proposed Project Site. Because the Project proposes to connect to PG&E's 115Kv transmission lines, that portion of the Project at the connection to 115Kv line may be covered under the PG&E HCP. PG&E will be responsible for the connection to their existing 115Kv transmission lines. The PG&E Operations and Maintenance HCP provides best management practices to ensure its facilities comply with the federal Endangered Species Act and the California Endangered Species Act (CESA). The Project would not conflict with the PG&E Operations and Maintenance HCP since appropriate mitigation is being required to ensure compliance with the Federal Endangered Species Act and the California Endangered Species Act. Therefore, the proposed Project would have no impact.

XI. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

According to the Resource Conservation Element of the 2035 Kings County General Plan, there are currently no mineral extraction activities occurring within the County. The California Division of Mines and Geology has not identified any significant mineral resources within the County⁴⁷. Few commercial mining and mineral extraction activities occur in Kings County, and are mostly located in the southwestern portions of the County. Only limited excavation of soil, sand and some gravel is excavated in the County for commercial use. In 2009, the County had only one surface mining permit for a non-active gravel operation, and two agricultural reclamation sites that were fully reclaimed. Historical local mines that are now closed include an open pit gypsum mine and a mercury mine in southwestern Kings County⁴⁸.

The California Department of Conservation, Office of Mine Reclamation (OMR) provides mine information to the public through the Mines Online (MOL) website. The website is an interactive web map designed to provide information such as mine name, operation status, commodities sold, and mine locations. According to the MOL geographic information system (GIS), a closed mine was formally located within the Project site approximately 0.5 miles northeast of the southwest corner of the Project site in the unincorporated areas of Kings County (Mine Id: 91-16-0001). According to the Office of Mine Reclamation GIS, the former mine operator provided sand and gravel commodities⁴⁹. The mine reclamation status certification has been complete for the former site and certified by Kings County. The open pit mine has since been closed with no intent to resume operations.

Regulatory Setting

Federal

There are no federal or local regulations pertaining to mineral resources relevant to the proposed Project.

State

⁴⁷ 2035 General Plan Update EIR (SCH#2008121020), p. 4.6-11

⁴⁸ Ibid.

⁴⁹ State of California, Department of Conservation, <http://maps.conservation.ca.gov/mol/mol-app.html>

California Surface Mining and Reclamation Act of 1975: Enacted by the State Legislature in 1975, the Surface Mining and Reclamation Act (SMARA), Public Resources Code Section 2710 et seq., insures a continuing supply of mineral resources for the State. The act also creates surface mining and reclamation policy to assure that:

- Production and conservation of minerals is encouraged;
- Environmental effects are prevented or minimized;
- Consideration is given to recreational activities, watersheds, wildlife, range and forage, and aesthetic enjoyment;
- Mined lands are reclaimed to a useable condition once mining is completed; and
- Hazards to public safety both now and in the future are eliminated.

Areas in the State (city or county) that do not have their own regulations for mining and reclamation activities rely on the Department of Conservation, Division of Mines and Geology, Office of Mine Reclamation to enforce this law. SMARA contains provisions for the inventory of mineral lands in the State of California. The State Geologist, in accordance with the State Board's Guidelines for Classification and Designation of Mineral Lands, must classify Mineral Resource Zones (MRZ) as designated below:

- **MRZ-1.** Areas where available geologic information indicates that there is minimal likelihood of significant resources.
- **MRZ-2.** Areas underlain by mineral deposits where geologic data indicate that significant mineral deposits are located or likely to be located.
- **MRZ-3.** Areas where mineral deposits are found but the significance of the deposits cannot be evaluated without further exploration.
- **MRZ-4.** Areas where there is not enough information to assess the zone. These are areas that have unknown mineral resource significance.

SMARA only covers mining activities that impact or disturb the surface of the land. Deep mining (tunnel) or petroleum and gas production is not covered by SMARA.

In addition, this proposed Project is being evaluated pursuant to CEQA.

Local

Kings County General Plan

The Kings County General Plan Resource Conservation Element has the following goals, objectives and policies related to mineral resources:

RC GOAL H1: Support the extraction of mineral resources in a manner that will not degrade the environment or conflict with other land uses.

RC OBJECTIVE H1.1: Provide for the development of mining and mineral extraction.

RC Policy H1.1.1: Implement the Surface Mining and Reclamation Act by requiring all mining operations, including surface mining, to secure a Conditional Use Permit, pursuant to the Kings County Zoning Ordinance, prior to beginning any mining operation.

RC Policy H1.1.2: All surface mines, unless otherwise exempted, shall be subject to reclamation plans that meet the requirements of the Kings County Surface Mining and Reclamation

Act Ordinance (Article 17 Kings County Code of Ordinance) and the State Surface Mining and Reclamation Act (SMARA) requirements. Reclamation procedures shall restore the site for future beneficial use of the land. Mine reclamation costs shall be borne by the mine operator, and guaranteed by financial assurances set aside for reclamation procedures.

RC OBJECTIVE H1.2: Ensure that mineral extraction operations are designed, located and operated so that they do not harm humans or the natural environment or are incompatible with surrounding land uses.

RC Policy H1.2.1: Discourage the location of mining operations near residential areas and other sensitive land uses, unless all impacts to such uses can be mitigated.

RC Policy H1.2.2: Minimize the adverse effects on environmental resources such as water quality and quantity, air quality, drainage and flood control, geophysical characteristics, biological resources, and aesthetic factors.

IMPACT ASSESSMENT

XI-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?

No Impact. Mineral resources located within Kings County are predominately sand and gravel resources primarily located in the County's southwestern portions. As analyzed by the Program EIR for the 2035 Kings County General Plan (SCH#2008121020), Section 4.6 Geology and Soils, the California Geological Survey Division of Mines and Geology has not classified lands in Kings County as a Mineral Resource Zone under the Surface Mining and Reclamation Act (SMARA) of 1975. A former sand and gravel open pit is located within the proposed Project site; approximately 0.5 miles northeast of the southwest corner of the Project site; however the mine operation has been closed. Soils of the proposed Project site have been disturbed through the previous agricultural and soil excavation activities that have occurred on the site. According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey of Kings County, California⁵⁰, the proposed solar facility site contains Lemoore sandy loam, partially drained soil. Due to the Project site's soil rating (poor for gravel and fair for sand) and site location, the proposed Project will not result in the loss of an available known mineral resource that would be of value to residents of the region or state. There will be no impact as a result of Project implementation.

XI-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?

No Impact. As noted in response XI-a), the proposed Project site is not located in a State identified Mineral Resource Zone. Furthermore, the proposed Project site is not delineated on a local land use plan as a locally important mineral resource recovery site; therefore, the existence of the Project will not result in the loss of known availability of any mineral resources. There will be no impact.

⁵⁰ USDA, Natural Resources Conservation Service Soil Survey of Kings County, California, Site accessed: July 2013

XII. NOISE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

The Project site consisted of a disced field supporting sparse weedy herbaceous vegetation. The project site is situated within a region dominated by commercial, rural residential, and agricultural land uses. The site is characterized by a single habitat/land use, agricultural field. At the time of the biological survey the Project site consisted of a sparsely vegetated, disced agricultural field. The site has been regularly disturbed by annual discing, canal removal, and other agriculture-related activities for at least the last 20 years. In the 1990's a canal running diagonally through the site was filled and rerouted to its current location at the east and south of the project site (Appendix C)⁵¹. Surrounding land uses include agricultural, grazing, rural residences and private recreational uses. Maximum noise levels generated by farm-related tractors typically range from 77 to 85 dB at a distance of 50 feet from the tractor, depending on the horsepower of the tractor and the operating conditions⁵². Due to the seasonal nature of the agricultural industry, there are often extended periods of time when no noise is generated at the proposed Project site, followed by short-term periods of intensive mechanical equipment usage and corresponding noise generation⁵³.

⁵¹ Appendix C, Biological Evaluation

⁵² Kings County General Plan, Noise Element, p. N-22

⁵³ Ibid.

Maximum noise levels generated by water ski boats and personal water craft (jet skis) at a distance of 100 feet are 70 dB and 66 db respectively. Based on an assumed 40 passages per hour, the average hourly noise level at a distance of 100 feet would be approximately 60 dB for water ski boat passbys. Based on an assumed 60 passages per hour, the average hourly noise level at a distance of 100 feet would be approximately 55 dB for jet ski passbys⁵⁴.

Typical rural residents in Kings County near Agricultural zones experience outdoor daytime noise levels of 55 to 75 dB while nighttime outdoor noise range a lower levels between 50 to 70 dB⁵⁵.

Regulatory Setting

Federal

Federal Vibration Policies

The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to ground-borne vibration levels of 90 VdB without experiencing structural damage⁵⁶. The FTA has identified the human annoyance response to vibration levels as 75 VdB⁵⁷.

State

The California Noise Control Act was enacted in 1973 (Health and Safety Code § 46010 *et seq.*), and states that the Office of Noise Control (ONC) should provide assistance to local communities in developing local noise control programs. It also indicates that ONC staff would work with the OPR to provide guidance for the preparation of the required noise elements in city and county General Plans, pursuant to Government Code § 65302(f). California Government Code § 65302(f) requires city and county general plans to include a noise element. The purpose of a noise element is to guide future development to enhance future land use compatibility.

Local

In addition to General Plan requirements, some jurisdictions have established noise ordinances in their municipal codes. Noise ordinances establish limits for which penalties or enforcement action may be taken. Therefore, a noise ordinance generally must not be exceeded; whereas, General Plan limits are to be taken into consideration during the development of a project and may or may not be strictly applied, depending on the particular circumstances of the proposed project. In preparing the noise element, a city or county must identify local noise sources and analyze and quantify, to the extent practicable, current and projected noise levels for various sources, including highways and freeways; passenger and freight railroad operations; ground rapid transit systems; commercial, general, and military aviation and airport operations; and other ground stationary noise sources.

Kings County General Plan

The Kings County General Plan Noise Element has the following objectives and policies related to noise:

⁵⁴ Kings County General Plan, Noise Element, p. N-25

⁵⁵ Ibid. p.N-39

⁵⁶ Federal Railway Administration, High-Speed Ground Transportation Noise and Vibration Impact Assessment, September 2012.

⁵⁷ Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

N OBJECTIVE B1.1: Reduce the potential for exposure of County residents and noise-sensitive land uses to excessive noise generated from non-transportation noise sources.

N Policy B1.1.1: Appropriate noise mitigation measures shall be included in a proposed project design when the proposed new use(s) would be affected by or include nontransportation noise sources and exceed the County's "Non-Transportation Noise Standards". Mitigation measures shall reduce projected noise levels to a state of compliance with this standard within sensitive areas. These standards are applied at the sensitive areas of the receiving use.

N Policy B1.1.3: Noise associated with construction activities shall be considered temporary, but would still be required to adhere to applicable County Noise Element standards.⁵⁸

The purpose of the 2035 Kings County General Plan Noise Element is to identify the existing and projected future noise environment in Kings County, and provide policy direction and implementation efforts to protect County residents from exposure to excessive noise levels. It provides the basis for comprehensive local policies to control and abate environmental noise from stationary and mobile noise sources, and reduce conflicts between noise and noise-sensitive land uses. The County has not established a noise ordinance. The non-transportation noise standard for outdoor areas for all residential land uses is 55/75 dB (average/maximum Leq) for the daytime and 50/70 dB (average/maximum Leq) for the nighttime. The non-transportation noise standard for interior areas for the day and night is 35/55 dB Leq. The non-transportation standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds those standards, then the noise level standards shall be increased at 5 dB increments to encompass the ambient⁵⁹.

IMPACT ASSESSMENT

XII-a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact. Project operations of the solar PV energy facility would be passive with minimal noise generating activity and therefore would not create a substantial increase in ambient noise levels. Potential noise sources resulting from the facility implementation include noise associated with scheduled periodic vehicular trips for site operation and maintenance activities. Maintenance activities would occur infrequently and are not expected to substantially increase ambient noise levels in the area above existing levels without the facility.

Project construction would involve temporary noise sources and is anticipated to last approximately five months for each of the two construction phases with Phase 1 scheduled to be completed within the first year and Phase 2 to be complete within three years. Typical construction equipment would include graders, trenchers, small tractors, pile drivers, skid steers, front end loaders, and material haulers, a crane and miscellaneous equipment. During the construction phases, noise from construction activities would contribute to the noise environment in the immediate Project vicinity. Activities involved in construction would generate infrequent maximum noise levels, as indicated in Table 14, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to

⁵⁸ 2035 Kings County General Plan, p. N.35

⁵⁹ 2035 Kings County General Plan, p. N-39

80 dBA at a distance of 50 feet, with feasible noise control. Construction noise levels would range between continual and irregular noises frequencies depending on type of mechanical equipment being utilized.

The 2035 Kings County General Plan Table N-8 and N Policy B1.2.1 set the standard noise threshold and defines a significant increase in noise from the pre-project noise environment. Table N-8 identifies 65 dBA as the threshold at the exterior of nearby residences.

Table 14
Typical Construction Noise Levels⁶⁰

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise Control ¹
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

¹ Feasible noise control includes the use of intake mufflers, exhaust mufflers and engine shrouds operating in accordance with manufacturers specifications.

The noise levels of construction equipment in Table 14 above are at a distance of 50 feet from the listed equipment. According to the Federal Transit Administration, the noise decibel is reduced on average by 5 decibels for every additional 50 feet, for example the truck at 75 decibels would be heard at approximately 55 decibels at the nearest residence 200 feet from the Project site, due to noise divergence, absorption, diffusion and shielding⁶¹. Additionally, these activities would be restricted to daytime hours and would be short-term in nature. Construction of the proposed Project is anticipated to last approximately five months for each of the two phases with Phase 1 scheduled to be completed within the first year and Phase 2 to be complete within three years. All related construction activities and Project operations will comply with the standards set forth by the Noise Standards in the Noise Element of the 2035 Kings County General Plan. Construction activities would take place during daylight hours between 6 a.m. and 7 p.m. on weekdays and 7 a.m. and 5 p.m. on weekends, except as necessary for safety reasons or to perform specific construction activities when electrical clearances are available.

Adherence to the General Plan policy would ensure that any potential impacts related to noise levels would remain less than significant.

XII-b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Vibration is the periodic oscillation of a medium or object. Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground borne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS), as in RMS

⁶⁰ US Environmental Protection Agency 1971

⁶¹ FTA Noise and Vibration Manual. Page 2-10.

vibration velocity. The PPV and RMS (VbA) vibration velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal and is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings⁶². Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. As it takes some time for the human body to respond to vibration signals, it is more prudent to use vibration velocity when measuring human response. The vibration velocity level (L_v) is reported in decibels relative to a level of 1×10^{-6} inches per second and is denoted as VdB. The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels⁶³.

Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day⁶⁴. Table 15 describes the typical construction equipment vibration levels.

Table 15
Typical Construction Equipment Vibration Levels⁶⁵

Equipment	PPV at 25-feet (in/sec)	Approximate L_v at 25-feet
Pile Driver (Impact)	0.644	112
Pile Driver (Sonic)	0.170	93
Vibratory Roller	0.210	94
Large Bulldozer	0.089	87
Small Bulldozer	0.003	58
Jackhammer	0.035	79
Loaded Trucks	0.076	86

Construction Related Vibration Impacts: While these construction-related activities will result in minor amounts of groundborne vibration, such groundborne noise or vibration will attenuate rapidly from the source and will not be generally perceptible outside of the construction areas. For example, the use of a sonic pile driver to install the solar arrays can produce groundborne vibration velocity levels in decibels (VdB) of 93 at a distance of 25 feet from the impact location. The range of interest for groundborne vibration is from approximately 50 VdB to 100 VdB⁶⁶. One of the major problems in developing accurate estimates of groundborne vibration is the large number of factors that can influence the levels at the receiver position. The physical parameters of the geology and the receiving building all influence the vibration levels at the receptor⁶⁷. At the closest residence, located about 200 feet from the Project site,

⁶² U.S. Department of Transportation, Federal Transit Administration, Transit Noise & Vibration Impact Assessment, May 2006, 2-16 to 12-10.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ U.S. Department of Transportation, Federal Transit Administration, Transit Noise & Vibration Impact Assessment, May 2006, page 7-5.

⁶⁷ U.S. Department of Transportation, Federal Transit Administration, Transit Noise & Vibration Impact Assessment, May 2006, page 7-10.

vibration levels would be below 75 VdB, which is below the acceptable vibration level of 85 VdB established by the Federal Transit Administration (FTA)⁶⁸.

Kings County does not have regulations that define acceptable levels of vibration. However, all construction related activities and Project operations will comply with the standards set forth by the Noise Standards in the Noise Element of the 2035 Kings County General Plan. Construction activities would take place during daylight hours between 6 a.m. and 7 p.m. on weekdays and 7 a.m. and 5 p.m. on weekends, except as necessary for safety reasons or to perform specific construction activities when electrical clearances are available. As such, vibration impacts are not considered to be significant, and no mitigation measures are required. The impacts to the neighboring sensitive receptors will be less than significant.

Project Operational Vibration Impacts: As described in Impact XII-a, the Project's operations and maintenance will result in minimal maintenance activities. Other than the minimal traffic trips related to maintenance, there will be no vibrational impacts from Project operation. Therefore, the exposure of persons to or generation of excessive groundborne vibration will be less than significant.

XII-c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. Upon completion of construction activities, the majority of proposed Project operational activity will be passive. Potential noise sources resulting from proposed Project implementation include noise associated with vehicular trips for facility operation and maintenance activities. Maintenance will also involve activities such as property weed abatement, clearing debris, trash removal, fence repairs, washing or repairing solar panels. Maintenance activities will occur infrequently and are not expected to substantially increase ambient noise levels in the area above existing levels without the proposed Project.

XII-d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. As discussed in Impact XII-a, the proposed Project will not create a substantial permanent increase in ambient noise levels in the Project's vicinity that would affect the existing environment. During construction phases the proposed Project could temporarily increase noise levels, however construction is temporary in nature and will comply with the Noise Standards of the Noise Element of the 2035 Kings County General Plan. In addition, there will not be any increase in ambient noise levels in the Project vicinity above existing levels. Therefore, impacts to noise levels will be less than significant.

XII-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 expose people residing or working in the project area to excessive noise levels?

No Impact. As discussed in impact Section VIII-e, the proposed Project is not found within any airport land use plan. There are no public airports or public use airports within two miles of the Project site.

⁶⁸ U.S. Department of Transportation, Federal Transit Administration, Transit Noise & Vibration Impact Assessment, May 2006, 2-16 to 12-10..

The nearest public airport is the Hanford Municipal Airport, which is located approximately 9.8 miles to the northeast of the proposed Project site. Therefore, there will be no impact.

XII-f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. As discussed in impact section VIII-f above, there are no private airstrips in the vicinity of the project area. The nearest private airstrip is the Jones Farm Airport, located more than 4 miles from the project site.

XIII. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Induce substantial population 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

The proposed Project site is located in Kings County just south of the City of Lemoore’s southern City Limit Boundary. The United States Census Bureau defines Kings County as encompassing the entire Hanford–Corcoran Metropolitan Statistical Area (MSA Code 25260). The population was 152,982 at the time of the 2010 U.S. Census. According to the California Department of Finance Population Report, Kings County is estimated at a population of approximately 150,181 as of January 1, 2014⁶⁹.

Regulatory Setting

This proposed Project is being evaluated pursuant to CEQA; however, there are no federal, state or local regulations, plans, programs, and guidelines associated with population or housing that are applicable to the proposed project.

IMPACT ASSESSMENT

XIII-a) Induce substantial population 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)?

No Impact. The proposed Project will include the construction and operation of a new solar energy generation facility. Total Project construction will take approximately five continuous months for each of the two proposed phases and will require approximately 65-80 temporary construction workers, at the peak. Phase 1 is scheduled to be completed within one year and Phase 2 within three years. These construction workers will likely draw from the local and regional area; therefore, the Project will not induce population growth. It is anticipated that periodic operations personnel would be required for site inspection, security, maintenance and system monitoring proposes. However, the proposed Project

⁶⁹ California Department of Finance, <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>

does not include onsite full time staff members to operate the facility. Operation and management of the proposed Project will occur from a remote location. Therefore the Project would not induce population growth and there would be no impact.

XIII-b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. No housing or people will be displaced by the proposed Project. There will be no impact.

XIII-c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. Any impacts regarding the displacement of people have been discussed in Impact XIII-b. There will be no impact.

XIV. PUBLIC SERVICES

Would the project:

- a) 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 other performance objectives for any of the public services:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

The Lemoore Police-Animal Control station is the closest law enforcement office to the Project site, located approximately 3.5 miles north of the site, while the Kings County Sheriff Station is located 8.5 miles northeast of the Project site.

The Kings County Fire Department Station 7 is approximately 1.7 miles northeast of the Project site while Lemoore Fire Department is approximately 3.2 miles to the north of the Project site.

There are several schools located near the Project site. Central Elementary School is the nearest educational facility approximately nine tenths of a mile southeast of the Project site. Tachi-Yokuts Early Education School and Engvall Elementary School are approximately 2.1 miles southeast and 2.6 miles north of the Project site, respectively.

Lemoore Municipal Golf Course is located 1.3 miles north/northeast of the Project site and 19th Avenue Park is located 1.9 miles north of the Project site both are within the City of Lemoore.

The City of Hanford's wastewater treatment plant and water treatment plant are located approximately 8.5 miles northeast of the Project site with the wastewater treatment ponds located approximately 8.4 miles to the northeast of the Project site.

Regulatory Setting

Federal

National Fire Protection Association: The National Fire Protection Association (NFPA) is an international nonprofit organization that provides consensus codes and standards, research, training, and education on fire prevention and public safety. The NFPA develops, publishes, and disseminates more than 300 such codes and standards intended to minimize the possibility and effects of fire and other risks. The NFPA publishes the NFPA 1, Uniform Fire Code, which provides requirements to establish a reasonable level of fire safety and property protection in new and existing buildings.

State

California Fire Code and Building Code: The 2013 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to fire fighters and emergency responders during emergency operations. The provision of the Fire Code includes regulations regarding fire-resistance rated construction, fire protection systems such as alarm and sprinkler systems, fire service features such as fire apparatus access roads, fire safety during construction and demolition, and wildland urban interface areas.

In addition, this proposed Project is being evaluated pursuant to CEQA.

Local

Kings County General Plan

The 2035 Kings County General Plan Health and Safety Element has the following goal related to public services:

HS GOAL C2: Support Countywide safety through adequate law enforcement, quality fire protection, emergency preparedness, and accessibility in times of emergency.

IMPACT ASSESSMENT

XIV-a) 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 other performance objectives for any of the public services:

Less Than Significant Impact. The Project would not rely on the addition or alteration of any public services. The subject site is within the northern portion of Kings County and would utilize existing services provided by Kings County. Any impacts related to this checklist item would be less than significant.

Fire Protection – Kings County would continue to provide fire protection services to the Project site upon development. No residential or office construction is identified with this Project. Vegetation that presents any fire hazard would initially be removed from the facilities and the site would be regularly

maintained. Additionally, gravel would be placed around high voltage equipment to prevent the spread of fire in the unlikely case that an explosion was to occur. The Applicant will also provide the County with a fire prevention plan for the Project in compliance with applicable County regulations. Any impacts would be less than significant.

Police Protection – Kings County would provide sheriff protection services to the Project site upon development. Kings County Sheriff Department dispatch is approximately 8.5 miles northeast of the proposed Project site while Lemoore Police Department is approximately 3.5 miles north of the site. Emergency response is adequate to the Project site. No residential or office construction is proposed for this Project. The proposed Project site would be fenced with a 6-foot chain-link fence with security wire around the perimeter, and gates would be installed at the roads entering the Project. Limiting access to the Project would be necessary both to ensure the safety of the public and to protect the equipment from potential theft and vandalism. Due to these measures, any impact to sheriff services would be less than significant.

Schools – Though there are several schools to the southeast and north of the Project site, the Project itself would not include construction of any residential structures, nor change the existing land use. The proposed Project would not result in an increase of population that would impact existing school facility service levels nor require additional need for school facilities to be expanded. There would be no impact.

Parks – As discussed in the Environmental Setting section there are a couple of recreational parks in proximity to the Project site. However, the Project does not propose to add any residential population to the site and there will be no permanent day-time employees at the Project site. As the Project would not induce greater population growth, there would be no need for additional park or recreational services or facilities as a result of Project implementation. There would be no impact.

Other public facilities – Other public services such as wastewater and water treatment plants are approximately 8.5 miles northeast of the proposed Project site. In addition, the site would generate its own electricity and have no sewer needs. Furthermore, the Project would not induce greater population growth that would require additional need for expanding public facilities. As such, there would be no impact as a result of Project implementation.

XV. RECREATION

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Baseline Conditions

Environmental Setting

Kings County presently owns and maintains three parks (Burris, Hickey, and Kingston) which are located in the northern portions of the County.⁷⁰ Local parks within the vicinity of the proposed Project site include Lemoore Municipal Golf Course located approximately 1.3 miles north/northeast of the Project site and 19th Avenue Park located approximately 1.9 miles north of the Project site, both are within the City of Lemoore.

Regulatory Setting

Kings County General Plan

The 2035 Kings County General Plan Open Space Element has the following goals, objectives and policies related to recreation:

OS GOAL D1L: Provide for parks, recreation and open space that will serve the current and future needs of County residents and visitors.

OS OBJECTIVE D1.1.1: Maintain and enhance the existing County park system within available funding constraints.

OS Policy D1.1.1.1: Apply the "Public/Quasi-Public" land use designation to County parks.

OS Policy D1.1.2: Community Plans should facilitate the development and maintenance of community park(s) within Community District areas to expand recreational resources available to residents.

OS Policy D1.1.3: Support community involvement that builds capacity for the long term maintenance and upkeep of open space and community park space within Community Districts.

⁷⁰ 2035 Kings County General Plan, p. OS-8

OS OBJECTIVE D1.2: Encourage the development of private recreational facilities compatible with the rural character of Kings County.

OS Policy D1.2.1: Support the establishment of new commercial recreational development, provided it is compatible with surrounding land uses and the intensity of such development does not exceed the ability of the natural environment of the site and the surrounding area to accommodate it. Such facilities may include, but are not limited to campgrounds, recreational camps, hotels and destination resorts, ball courts and ball fields, skeet clubs and facilities, hunting and fishing clubs, and equestrian facilities.

IMPACT ASSESSMENT

XV-a) 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?

No Impact. As discussed in Impact XIII-a and XIV-a, the proposed Project will not increase the demand for recreational facilities nor put a strain on the existing recreational facilities. The proposed Project will not induce population growth or employ on-site permanent staff. Maintenance, repair, and cleaning crews will service the site on an as-needed basis. As such, the proposed Project would not induce population growth which would increase the use of existing recreational facilities or cause physical deterioration to be accelerated as a result of the proposed Project implementation. Therefore, there will be no impact.

XV-b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed Project does not include recreational facilities. As there is no population growth associated with the proposed Project, construction or expansion of nearby recreational facilities will not be necessary. There will be no impact.

XVI. TRANSPORTATION/TRAFFIC

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

BASELINE CONDITIONS

Environmental Setting

The 60 acre Project site is located in the northern portion of the County, west of State Route (SR) 43, east of SR 41 and south of SR 198. More specifically, the Project site is at the intersection of South 19th Avenue and Jackson Avenue. SR 41 is approximately half a mile west of the site, SR 198 is approximately 2.2 miles north of the site, SR 43 Central Valley Highway/ 8th Avenue is located approximately 11 miles east of the site, and SR 99 is approximately 24 miles east of the site. All four of these routes are part of the California Freeway and Expressway System. Interstate 5 (I-5) is approximately 24 miles to the west of the site.

Hanford Municipal Airport is located approximately 9.8 miles to the northeast of the Project site. Visalia Municipal Airport is located 22.3 miles to the east/northeast of the site; Lemoore Naval Air Station is

approximately 7.9 miles to the northwest of the site, while Fresno Yosemite International Airport is approximately 35.5 miles north of the Project site.

The closest railroad is the Burlington Northern and Santa Fe (BNSF) Railway in Hanford and is used by Amtrak. Amtrak California's San Joaquin stops at Hanford station.

Regulatory Setting

Federal

Several federal regulations govern transportation issues. They include:

- Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.
- 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

State

State of California Transportation Department Transportation Concept Reports

Each District of the State of California Transportation Department (Caltrans) prepares a Transportation Concept Report (TCR) for every state highway or portion thereof in its jurisdiction. The TCR usually represents the first step in Caltrans' long-range corridor planning process. The purpose of the TCR is to determine how a highway will be developed and managed so that it delivers the targeted LOS and quality of operations that are feasible to attain over a 20-year period, otherwise known as the "route concept" or beyond 20 years, for what is known as the "ultimate concept".

SR 41 is designated as Segment 5 in the vicinity of the Project site, and has a route concept rationale of LOS C with this portion of the route being primarily rural. Two-lane portions within this segment are planned to be improved to 4 lanes within the next 20 years⁷¹.

SR 43 is designated as Segment 17 in the vicinity of the Project site, and has a route concept rationale of LOS D assigned to all of the rural portions of Route 43. A LOS D route concept rationale is due to the interregional importance of this route and the anticipated traffic volumes⁷². It is anticipated to be improved for operational and safety purposes only under the route concept. Under the ultimate viable concept within 25 years, operational and safety improvements are proposed for Segment 17 of SR 43.

State Route 99 is designated as Segments 17 and 19 in the vicinity of the Project site. The route concept for SR 99 is a minimum six-lane freeway, which is consistent with District policy to complete a 6-lane system and also with the Interregional Transportation Strategic Improvement Plan for Route 99. The ultimate concept is for a six-lane freeway plus auxiliary lanes, however, it can be up to eight lanes plus

⁷¹ Caltrans Traffic Concept Report, <http://www.dot.ca.gov/dist6/planning/tcrs/index.htm>

⁷² Ibid.

auxiliary lanes⁷³. An example of the concept is predominant in the Bakersfield area where there are already eight lanes or adequate right-of-way already exists to accommodate lane expansion.

State Route 198 is designated as Segments 7 and 8 in the Project vicinity which operates between LOS B and LOS C for the majority of its length.

Local

2035 Kings County General Plan

The 2035 Kings County General Plan has the following goals and objectives for traffic and circulation:

C GOAL A1: Provide a coordinated countywide circulation system with a variety of safe and efficient transportation alternatives and modes that interconnect cities, community districts, adult education facilities, and adjoining cities in neighboring counties, and meets the growing needs of residents, visitors, and businesses.

C OBJECTIVE A1.3: Maintain an adequate LOS for County roadways and ensure proper maintenance occurs along critical routes for emergency response vehicles.

C GOAL C1: Integrate through the County's regional transportation system, an efficient and coordinated goods and people moving network of highways, railroads, public transit, and non-motorized options that reduce overall fuel consumption and associated air emissions.

IMPACT ASSESSMENT

XVI-a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact. Policy A1.3.2 in the Circulation Element of the 2035 Kings County General Plan requires "proposed developments that have the potential to generate 100 peak hour trips or more to conduct a traffic impact study that follows the most recent methodology outlined in Caltrans Guide to the Preparation of Traffic Impact Studies." Here, Project construction would be temporary and would generate approximately 70 employee round trips per day over the course of approximately five months for each of the two planned phases of construction, with Phase 1 scheduled to be completed within the first year and Phase 2 to be completed within three years. Operations and maintenance employee trips would be contracted on an as needed basis as the Project does not anticipate employing permanent onsite staff. Thus, the threshold for a traffic impact study is not met for this project.

Circulation Element Policy A1.2.1 requires County roadway systems maintain a minimum level of service (LOS) standard of "D" or better on all major roadways and arterial intersections⁷⁴. The nearest through streets to the proposed Project site are 19th Avenue, Jackson Avenue, and SR 41. According to Table C-4⁷⁵ of the General Plan, SR 41 between Jackson Avenue and SR 198 operates at a LOS standard of "C,"

⁷³ Caltrans Traffic Concept Report, <http://www.dot.ca.gov/dist6/planning/tcrs/index.htm>.

⁷⁴ 2035 Kings County General Plan, Circulation Element, p. C-4, C-13 and C-14

⁷⁵ 2035 Kings County General Plan, Circulation Element, Table C-4

with 9,700 average annual daily trips (AADT) as of 2006. As shown on Table C-3⁷⁶ of the General Plan, for a 2-lane highway, the threshold for triggering a LOS standard of “D” is 16,400 average annual daily trips. With an estimated maximum of 70 daily trips during construction and minimal trips generated during operations, the Project will not cause SR 41 to fall below the minimum LOS standard of “D”. Similarly, Jackson Avenue operates at a LOS standard of “B,” and the Project will not cause it to fall below the threshold of significance. 19th Avenue is classified as a Rural Residential Minor Highway, and has no established LOS standard⁷⁷.

Because the Project will produce a minimal number of daily trips and will comply with applicable County circulation policies, the impact on local roadways would be less than significant.

XVI-b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact. The proposed Project does not require construction of any roadways, and will generate approximately 70 round trips per day on average during the two construction phases anticipated to last approximately 5 months each. The solar facility will be remotely operated and require no on-site daily operational staff. Occasional service employees may be contracted for specific on-site operation, repair, and maintenance. As the proposed Project will not generate significant new traffic, and based on existing conditions, there is expected to be virtually no change in the operating conditions of the roadways from what currently exists. The impact to the level of service on surrounding roadways due to proposed Project implementation will be less than significant.

XVI-c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

No Impact. The proposed Project is located approximately 9.8 miles southwest of the Hanford Municipal Airport and 22.3 miles west of the Visalia Airport. The construction of a solar generation facility will not cause an increase in air traffic levels or cause a change in air traffic location. There will be no impact.

XVI-d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. Any new roadways associated with the Project would be interior service driveways for the facility that would not necessitate hazardous roadway design features. The change in the existing land use would not result in substantial increase of hazards due to sharp curves or dangerous intersection designs. As such, no impacts will occur as a result of Project implementation.

XVI-e) Result in inadequate emergency access?

No Impact. The proposed Project would have primary access along S. 19th Avenue. No roads will be modified as a result of this proposed Project; as such, there will be no impact to any emergency access.

⁷⁶ 2035 Kings County General Plan, Circulation Element, Table C-3

⁷⁷ 2035 Kings County General Plan, Circulation Element, p. C-10

XVI-f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact. The 2011 Kings County Regional Bicycle Plan – Planned and Existing Bikeways map identifies Jackson Avenue in the vicinity of the proposed Project site as a Future Bicycle Project route⁷⁸. The proposed project will not generate significant new traffic for the operation and maintenance of the facility; and therefore, would not interfere with the planned future bicycle route nor the performance or safety of such facility. There are no other adopted alternative transportation policies, plans, or programs in the proposed Project area. Any impacts will be less than significant.

⁷⁸ 2011 Kings County Regional Bicycle Plan, County of Kings: Planned and Existing Bikeways Map

XVII. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IMPACT ASSESSMENT

XVII-a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The Project involves the construction and operation of a solar energy generation facility. The facility would not include permanent restroom facilities, require a sewer hookup, or generate any wastewater. The Project would not result in a change to facilities or operations of the existing wastewater facilities. There would be no impact as a result of Project implementation.

XVII-b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. As discussed in Impact IX-b and Impact XVII-a, Project operation would not generate any continuous wastewater, nor would it require significant amounts of water for operation of the Project. All water used onsite will be brought in from offsite. The periodic application of water to solar panels to clean off dust will be very diffuse across the approximate 60 acres of facilities. The small amount of water running off of panels will not generate enough flow to require wastewater treatment facilities or connection to local services. The runoff that doesn't evaporate will be allowed to percolate into the ground surface. No new facilities or the expansion of an existing facility would be needed. As such, there will be no impact to this checklist item.

XVII-c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The periodic application of water to solar panels to clean off dust would be very diffuse across the 60.39 acres of facilities. The small amount of water running off the panels would not generate enough flow to require drainage facilities or connection to local services. The runoff that does not evaporate would be allowed to percolate into the ground surface. Drainage patterns on the site would not be significantly altered during development. No new storm water drainage facilities would be needed nor would the expansion of an existing facility be required. Therefore, there will be no impact.

XVII-d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. As discussed in Impact IX-b, water for construction, estimated to be approximately 250 gallons per day of construction would be obtained from a third-party with an existing entitlement. Small volumes of water (approximately 0.05 acre feet per year) would be procured offsite to wash the panels approximately four times per year. Due to the fact that this water would come from a third-party with an existing entitlement no new or expanded entitlements are needed, therefore there will be no impact.

XVII -e) Result in a determination by the wastewater treatment provider which 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?

No Impact. As discussed in Impact XVII-a, the Project would not generate wastewater. There would be no impact.

XVII -f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. The proposed project will be an unmanned solar power generating facility, generating no process waste and only small quantities of solid waste that would require disposal. Waste from construction and operation of the project would be disposed of at municipal solid waste (MSW) Landfill B-17, located in Kettleman City, California. This landfill's average annual throughput ranges from 100,000-249,999 tons/year and has an average annual capacity of 500,000-749,999 tons/year.¹

Waste would go to the Kings Waste and Recycling Authority's Materials Recovery Facility in Hanford, where recyclable materials would be removed. All remaining waste would then go to the B-17 Landfill

Unit at the Chemical Waste Management Kettleman Hills Facility. The B-17 Landfill unit has an approved capacity of 18.4 million cubic yards. The site capacity used as of March 2012 was 896,171 cubic yards. The site capacity remaining as of March 2012 was 17.5 million cubic yards. Conditional Use Permit No. 04-01, which approved a new non-hazardous-waste landfill designated as Landfill Unit B-17, was approved on May 30, 2006, when the Planning Commission adopted Resolution No. 06-05. The estimated closure date is 2052, depending on actual fill rate. If this facility is not available, another equivalent will be utilized. All waste associated with decommissioning will be disposed of or recycled in accordance with applicable laws⁷⁹. Any impacts as a result of the Project would be less than significant.

XVII -g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. The proposed Project will continue to comply with any federal, state, and local regulations. There is no impact.

⁷⁹ <http://www.calrecycle.ca.gov/FacI/Facility/Operations.aspx?FacilityID=18240>

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) 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, 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IMPACT ASSESSMENT

XVIII-a) 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, 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?

Less Than Significant Impact With Mitigation Incorporation. The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project will have a less than significant effect on the local environment. The Project includes developing an approximate 60 acre site into a solar energy generation facility in the unincorporated areas of Kings County.

The potential for impacts to biological, cultural resources, and hazardous materials are addressed in sections IV.-Biological Resources, V.-Cultural Resources, and VIII.-Hazards and Hazardous Materials. Impacts of both the construction and solar facility operations of the proposed Project will be less than significant to biological, cultural resources, and hazardous materials with the incorporation of the mitigation measures stated in the previous impact sections. Accordingly, the Project will involve no potential for significant impacts through the degradation of the quality of the environment, the reduction in the habitat or population of fish or wildlife, including endangered plants or animals, the elimination of a plant or animal community or example of a major period of California history or prehistory. The impact will be less than significant with mitigation.

XVIII-b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact With Mitigation Incorporation. The Project proposes the installation of approximately 26,667 to 38,000 solar modules within the 60 acre property capable of generating an electrical capacity of 8 MW_{AC}. The proposed Project would generate enough electricity to service approximately 1,676 households within Kings County. As discussed above, the Project will result in less than significant impacts to biological, cultural resources, and hazards and hazardous materials with mitigation incorporation as described in section IV.-Biological Resources, V.-Cultural Resources, and VIII. Hazards and Hazardous Materials of this environmental review document. Once operating, the proposed Project will be monitored on a daily basis from a remote location utilizing Supervisory Control and Data Acquisition (SCADA) system to allow for the remote monitoring of facility operations and/or remote control of critical components. Occasional service and maintenance employees will be scheduled to service the facility on an as needed basis. As such, minimal project related vehicle trips would occur as a result of project implementation. The solar energy generation facility will be almost entirely passive and will not result in ongoing impacts that are individually limited or cumulatively considerable. The implementation of the identified Project-specific mitigation measures and compliance with applicable codes, ordinances, laws and other required regulations will reduce the magnitude of any impacts associated with construction activities to a less than significant level.

XVIII-c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact With Mitigation Incorporation. The Project will not result in substantial adverse effects on human beings, either directly or indirectly. Mitigation measures are provided in sections IV.-Biological Resources, V.-Cultural Resources, and VIII-Hazards and Hazardous Materials of this environmental document. The implementation of the identified mitigation measures would reduce the proposed Project’s potential environmental effects on the public and the environment to less than significant levels. No additional mitigation measures will be required. Adverse effects on human beings resulting from implementation of the Project will be less than significant.

CHAPTER 3

INITIAL STUDY CHECKLIST

4 MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Lemoore 14 Project (proposed Project) in Kings County (County). The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements.

Table 16 presents the mitigation measures identified for the proposed Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of Table 16 identifies the mitigation measure. The second column, entitled “When Monitoring is to Occur,” identifies the time the mitigation measure should be initiated. The third column, “Frequency of Monitoring,” identifies the frequency of the monitoring of the mitigation measure. The fourth column, “Agency Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns will be used by the County to ensure that individual mitigation measures have been complied with and monitored.

Table 16
Mitigation Monitoring Plan

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
Agricultural Resources:							
<p><u>AG-1:</u> Prior to the issuance of a building permit, the applicant shall submit a Soil Reclamation Plan (Plan) for restoration of the Project site to its pre-project condition, for review and approval by the Planning Division of the Kings County Community Development Agency staff. The Plan shall contain an analysis of pre-project baseline soil conditions at the solar generation facility, and shall contain specific measures to restore the soil to its pre-project condition at the end of the Solar Facility's useful life, including removal of all project fixtures, equipment, and non agricultural driveways, as well as restoration of compacted soil. General preconstruction conditions of the project site shall be photographically documented by the applicant prior to the start of construction of the project. All driveways and other areas compacted during original construction or by equipment used in the decommissioning would be tilled to restore the sub-grade material to a density and depth consistent with its pre-project condition. 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 weed-free mulch spread shall be applied, as needed, to stabilize the soil until germination occurs and young plants establish to facilitate moisture retention in the soil. Reclamation would return the site to the conditions equivalent to those prior to construction and operation of the project. Whether the project area has been restored to pre-construction conditions would be assessed by Kings County staff six months after the initial seeding has occurred. Additional seedings and applications of weed free mulch shall be applied to areas of the project site that have been determined to be unsuccessfully reclaimed (e.g., restored to pre-construction conditions) after six months, until the entire project area has been restored to equivalent conditions prior to construction and operation of the project. All waste shall be disposed of in compliance with applicable law. Waste would go to the Kings Waste and Recycling Authority's Materials Recovery Facility in Hanford, where recyclable materials</p>	<p>Prior to construction And after the solar facility is no longer in service</p>	<p>Prior to construction And after the solar facility is no longer in service</p>	<p>Kings County</p>	<p>Review of Soil Reclamation Plan and</p>			

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
<p>would be removed. All remaining waste would then go to the B-17 Landfill Unit at the Chemical Waste Management Kettleman Hills Facility. The B-17 Landfill unit has an approved capacity of 18.4 million cubic yards. The site capacity used as of March 2012 was 896,171 cubic yards. The site capacity remaining as of March 2012 was 17.5 million cubic yards. Conditional Use Permit No. 04-01, which approved a new non-hazardous-waste landfill designated as Landfill Unit B-17, was approved on May 30, 2006, when the Planning Commission adopted Resolution No. 06-05. The estimated closure date is 2052, depending on actual fill rate. If this facility is not available, another equivalent will be utilized. All waste associated with decommissioning will be disposed of or recycled in accordance with applicable laws. Additionally, the Soil Reclamation Plan shall discuss the retention of any surface water rights. The applicant shall verify the completion of reclamation within 18 months after the solar facility has ceased operating, which would be 12 months after the expiration of the Project use permit, with Planning Division staff. (Please note that Section 2503.05 of the Kings County Zoning Ordinance defines an Abandoned Use as a business or other use which has discontinued operations and/or vacated the site, or abandoned the use, for more than six (6) months.)</p>							
<p>AG-2: Prior to the issuance of a building permit, the applicant shall either post a performance or cash bond, submit a Certificate of Deposit, or submit a letter of credit to ensure completion of the activities under the Soil Reclamation Plan. Every 5 years the Applicant shall submit an updated Engineer's Cost Estimate for financial assurances for the Reclamation Plan, which will be reviewed every 5 years by the Kings County Community Development Agency to determine if finances are sufficient to perform reclamation of the project. The assurance must be adjusted if, during the five-year review, finances are determined to be insufficient to perform reclamation of the project.</p>	<p>Prior to construction and every 5 years thereafter.</p>	<p>Prior to construction and every 5 years thereafter.</p>	<p>Kings County</p>	<p>Financial Review</p>			
Biological Resources:							
<p>BIO - 1 (Avoidance). In order to avoid impacts to Swainson's hawk all onsite project activities will commence after the nesting season has concluded (August 31st). Major construction (i.e. PV panel installation, perimeter fencing, trenching, excavating, or any activity that would require the use of heavy equipment) will occur before</p>	<p>Prior to construction</p>	<p>During construction and closure</p>	<p>Kings County</p>	<p>Field inspection</p>			

CONDITIONAL USE PERMIT NO. 14-03 FOR THE LEMOORE 14 PROJECT
Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
the start of the nesting season (April 1 st).							
BIO - 2 (Pre-construction Surveys). If Project delays occur and construction must be initiated during the nesting season, prior to any construction related activity, preconstruction surveys will be conducted on the project site and adjacent lands within 0.5 mile of the site to identify any nesting pairs of Swainson’s hawks that may be present. These surveys will conform to the requirements of CDFW as presented in <i>Recommended Timing And Methodology For Swainson’s Hawk Nesting Surveys In California’s Central Valley</i> , Swainson’s Hawk Technical Advisory Committee, May 31, 2000 (see Appendix D of Appendix C). If no nesting pairs are found on or within the vicinity of the project site, no further mitigation is required.	Prior to construction	During construction and closure	Kings County	Field inspection			
BIO - 3 (Establish buffers). Should any active nests be discovered in or near proposed construction zones, they shall be avoided by one-quarter mile in accordance with CDFW’s 1994 Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks in the Central Valley. All other nests shall be protected from all construction activities within 50 feet of the nest site. In the event that nests cannot be successfully avoided, the applicant may be required to obtain authorization from CDFW or USFWS. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.	Prior to construction	Monthly monitoring during construction	Kings County	Field Inspection			
BIO - 4 (Avoidance). In order to avoid impacts to all nesting birds from grading and construction, these activities will occur outside of the typical avian nesting season, or between September 1 and January 31.	Prior to construction	During construction and closure	Kings County	Field Inspection			
BIO – 5 (Pre-construction surveys). If, due to Project delays, grading or construction must occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active migratory bird nests within 15 days of these activities.	Prior to construction	During construction and closure	Kings County	Field Inspection			
BIO - 6 (Establish buffers). Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. Typically this buffer is 50 feet. In the event that nests cannot be successfully avoided, the applicant may be required to obtain authorization from	Prior to construction	Monthly monitoring during construction	Kings County	Field Inspection			

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
CDFW or USFWS. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.							
BIO-7 (prevent entrapment). Should any vertical tubes, such as solar mount poles, chain link fencing poles, or any other hollow poles be utilized on site, the vertical pole shall be capped immediately after installation to prevent avian fatalities.	On-Going	On-Going	Kings County	Field Inspection			
BIO-8 (Take Avoidance Surveys). A take avoidance survey will be conducted by a qualified biologist for burrowing owls within 30 days of the onset of construction. This take avoidance survey will be conducted according to methods described in the <i>Staff Report on Burrowing Owl Mitigation</i> (CDFG 2012). All suitable habitats of the site will be covered during this survey.	Within 30 days of the start of construction	During construction	Kings County	Field Inspection			
BIO-9 (Avoidance of Active Nests). If take avoidance surveys are undertaken during the breeding season (February through August) and active nest burrows are located within or near construction zones, a construction-free buffer of 250 feet should be established around all active owl nests. The buffer areas should be enclosed with temporary fencing, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.	Prior to construction	During construction and closure	Kings County	Field Inspection			
BIO-10 (Passive Relocation of Resident Owls). During the non-breeding season (September through January), resident owls occupying burrows in areas proposed for development may be relocated to alternative habitat. The relocation of resident owls must be conducted according to a relocation plan prepared by a qualified biologist. Passive relocation will be the preferred method of relocation.	Prior to construction	During construction and closure	Kings County	Field Inspection			
BIO-11 (pre-construction surveys). Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any project activity likely to impact the San Joaquin kit fox. These surveys will be conducted in accordance with the USFWS Standard Recommendations. The primary objective is to identify kit fox habitat features (e.g., potential dens and refugia) on the project site and evaluate their use by kit foxes. If an active kit fox den is detected within or immediately adjacent to the area of work, the	Prior to construction	During construction and closure	Kings County	Field Inspection			

CONDITIONAL USE PERMIT NO. 14-03 FOR THE LEMOORE 14 PROJECT

Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
USFWS shall be contacted immediately to determine the best course of action.							
BIO-12 (Avoidance). Should kit fox be found using the site during preconstruction surveys the project will avoid the habitat occupied by kit fox in accordance with the USFWS Standard Recommendations and the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified.	During Construction	On-Going	Kings County	Field Inspection			
<p>BIO-13 (Minimization). Permanent and temporary construction activities and other types of project-related activities should be carried out in a manner that minimizes disturbance to kit foxes. In accordance with the USFWS Standard Recommendations, minimization measures include, but are not limited to:</p> <ul style="list-style-type: none"> • Restriction of project-related vehicle traffic to established roads, construction areas, and other designated areas, with a speed limit no greater than 20 mph; • All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the Service has been consulted. If necessary, and under the direct supervision of a biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped; • Restriction of rodenticide and herbicide use, if rodent control must be conducted, zinc phosphide shall be used because of a proven lower risk to kit fox; and proper disposal of food items and trash. 	On-Going	On-Going	Kings County	Field Inspection			
BIO-14 (Employee Education Program). Prior to the start of construction the applicant will retain a qualified biologist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the San Joaquin kit fox. This training will include a description of the kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status	Prior to Construction	During Construction and closure	Kings County	Field Inspection			

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
of the species and its protection under the endangered species act; and a list of the measures being taken to reduce impacts to the species during project construction and implementation.							
BIO-15 (Mortality Reporting). The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified in writing within three working days in case of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.	On-Going	On-Going	Kings County	Field Inspection			
Cultural Resources:							
CUL-1: If, in the course of project construction or operation, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within one hundred (100) feet of the find shall be ceased and the Kings County Community Development Agency shall be notified immediately. The project proponent shall retain a qualified archaeologist to assess the significance of the find and make mitigation recommendations, if warranted. The archaeologist shall document the resources using DPR 523 forms and file said forms with the California Historical Resources Information System (CHRIS). The resources shall be photo-documented and collected by the archaeologist for submittal to the Santa Rosa Rancheria’s Cultural and Historical Preservation Department. The archaeologist shall be required to submit to the County for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.	During construction	During construction	Kings County	Field inspection			

CONDITIONAL USE PERMIT NO. 14-03 FOR THE LEMOORE 14 PROJECT
Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
Hazards and Hazardous Materials:							
<p>HAZ-1: Prior to construction and as a condition of receiving building permits, the constructor and operator of the Project shall implement an Injury and Illness Prevention Program and project-specific health and safety plans. These plans should include but not be limited to the following:</p> <ul style="list-style-type: none"> • Train workers on the applicable evacuation activities to protect workers from potential hazards posed by hazardous wastes; • Compliance with the SJVAPCD’s Regulation VIII and SJVAPCD-approved Dust Control Plan; • Train workers and supervisors on how to recognize symptoms of illness related to Valley Fever; • Provide pre-construction training and instruction regarding requirements for on-site construction pursuant to the approved Dusts Control Plan; • Limit workers’ exposure to outdoor dust in disease-endemic areas; • When soil will be disturbed by heavy equipment or vehicles, wet the soil with water or other permitted soil stabilizer before disturbing it and continuously wet it while digging to keep dust levels down; • Heavy equipment, trucks, and other vehicles generating heavy dust should have enclosed cabs equipped with air filters; and • When exposure to dust is unavoidable, provide NIOSH-approved respiratory protection to all employees. 	Prior to construction	During construction and closure	Kings County	Field inspection			

CHAPTER 4

MITIGATION MONITORING AND REPORTING PROGRAM

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CHAPTER 5

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APPENDIX A

SOILS REPORT



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Kings County, California**

Lemoore 14



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

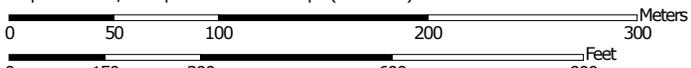
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:3,590 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kings County, California
 Survey Area Data: Version 9, Nov 26, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Kings County, California (CA031)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
137	Lemoore sandy loam, partially drained	63.1	100.0%
Totals for Area of Interest		63.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Kings County, California

137—Lemoore sandy loam, partially drained

Map Unit Setting

Elevation: 210 to 230 feet

Mean annual precipitation: 7 inches

Mean annual air temperature: 63 degrees F

Frost-free period: 250 to 275 days

Map Unit Composition

Lemoore and similar soils: 85 percent

Minor components: 15 percent

Description of Lemoore

Setting

Landform: Rims on basin floors

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium derived from igneous and sedimentary rock

Typical profile

Ap - 0 to 7 inches: sandy loam

C - 7 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 3 percent

Salinity, maximum in profile: Very slightly saline to moderately saline (4.0 to 16.0
mmhos/cm)

Sodium adsorption ratio, maximum in profile: 40.0

Available water storage in profile: Low (about 3.7 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability classification (irrigated): 2w

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: B/D

Minor Components

Grangeville

Percent of map unit: 3 percent

Landform: Alluvial fans

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Grangeville

Percent of map unit: 2 percent

Landform: Alluvial fans

Nord

Percent of map unit: 2 percent

Cajon

Percent of map unit: 2 percent

Boggs

Percent of map unit: 2 percent

Landform: Alluvial flats

Lakeside

Percent of map unit: 2 percent

Landform: Basin floors

Kimberlina

Percent of map unit: 2 percent

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Irrigated Capability Class (Lemoore 14)

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels-capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Custom Soil Resource Report

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

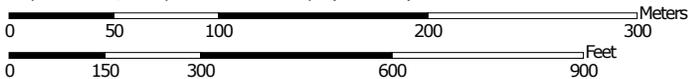
Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Custom Soil Resource Report
Map—Irrigated Capability Class (Lemoore 14)



Map Scale: 1:3,590 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

- Area of Interest (AOI)**
 -  Area of Interest (AOI)
- Soils**
 - Soil Rating Polygons**
 -  Capability Class - I
 -  Capability Class - II
 -  Capability Class - III
 -  Capability Class - IV
 -  Capability Class - V
 -  Capability Class - VI
 -  Capability Class - VII
 -  Capability Class - VIII
 -  Not rated or not available
 - Soil Rating Lines**
 -  Capability Class - I
 -  Capability Class - II
 -  Capability Class - III
 -  Capability Class - IV
 -  Capability Class - V
 -  Capability Class - VI
 -  Capability Class - VII
 -  Capability Class - VIII
 -  Not rated or not available
 - Soil Rating Points**
 -  Capability Class - I
 -  Capability Class - II
- Capability Class - III** 
- Capability Class - IV** 
- Capability Class - V** 
- Capability Class - VI** 
- Capability Class - VII** 
- Capability Class - VIII** 
- Not rated or not available** 
- Water Features**
 -  Streams and Canals
- Transportation**
 -  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background**
 -  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

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 Survey Area Data: Version 9, Nov 26, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Irrigated Capability Class (Lemoore 14)

Irrigated Capability Class— Summary by Map Unit — Kings County, California (CA031)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
137	Lemoore sandy loam, partially drained	2	63.1	100.0%
Totals for Area of Interest			63.1	100.0%

Rating Options—Irrigated Capability Class (Lemoore 14)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

California Revised Storie Index (CA) (Lemoore 14)

The Storie Index is a soil rating based on soil properties that govern a soil's potential for cultivated agriculture in California.

The Storie Index assesses the productivity of a soil from the following four characteristics: Factor A, degree of soil profile development; factor B, texture of the surface layer; factor C, slope; and factor X, manageable features, including drainage, microrelief, fertility, acidity, erosion, and salt content. A score ranging from 0 to 100 percent is determined for each factor, and the scores are then multiplied together to derive an index rating.

For simplification, Storie Index ratings have been combined into six grade classes as follows: Grade 1 (excellent), 100 to 80; grade 2 (good), 79 to 60; grade 3 (fair), 59 to 40; grade 4 (poor), 39 to 20; grade 5 (very poor), 19 to 10; and grade 6 (nonagricultural), less than 10.

The components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as the one shown for the map unit. The percent composition of each component in a particular map unit is given to help the user better understand the extent to which the rating applies to the map unit.

Other components with different ratings may occur in each map unit. The ratings for all components, regardless the aggregated rating of the map unit, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report
Map—California Revised Storie Index (CA) (Lemoore 14)



Map Scale: 1:3,590 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters

0 150 300 600 900 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  Grade One - Excellent
-  Grade Two - Good
-  Grade Three - Fair
-  Grade Four - Poor
-  Grade Five - Very Poor
-  Grade Six - Nonagricultural
-  Not rated
-  Not rated or not available

Soil Rating Lines

-  Grade One - Excellent
-  Grade Two - Good
-  Grade Three - Fair
-  Grade Four - Poor
-  Grade Five - Very Poor
-  Grade Six - Nonagricultural
-  Not rated
-  Not rated or not available

Soil Rating Points

-  Grade One - Excellent
-  Grade Two - Good
-  Grade Three - Fair
-  Grade Four - Poor

-  Grade Five - Very Poor
-  Grade Six - Nonagricultural
-  Not rated
-  Not rated or not available

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kings County, California
 Survey Area Data: Version 9, Nov 26, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—California Revised Storie Index (CA) (Lemoore 14)

California Revised Storie Index (CA)— Summary by Map Unit — Kings County, California (CA031)					
Map unit symbol	Map unit name	Rating	Component name (percent)	Acres in AOI	Percent of AOI
137	Lemoore sandy loam, partially drained	Grade Five - Very Poor	Lemoore (85%)	63.1	100.0%
Totals for Area of Interest				63.1	100.0%

Rating Options—California Revised Storie Index (CA) (Lemoore 14)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Irrigated Capability Subclass (Lemoore 14)

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels-capability class, subclass, and unit. Only class and subclass are included in this data set.

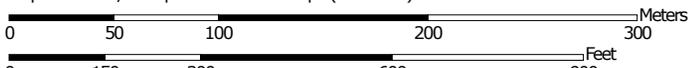
Capability subclasses are soil groups within one capability class. They are designated by adding a small letter, "e," "w," "s," or "c," to the class numeral, for example, 2e. The letter "e" shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; "w" shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); "s" shows that the soil is limited mainly because it is shallow, droughty, or stony; and "c," used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by "w," "s," or "c" because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, or wildlife habitat.

Custom Soil Resource Report Map—Irrigated Capability Subclass (Lemoore 14)



Map Scale: 1:3,590 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

- Area of Interest (AOI)**
 -  Area of Interest (AOI)
- Soils**
 - Soil Rating Polygons**
 -  Erosion
 -  Soil limitation within the rooting zone
 -  Excess water
 -  Climate condition
 -  Not rated or not available
 - Soil Rating Lines**
 -  Erosion
 -  Soil limitation within the rooting zone
 -  Excess water
 -  Climate condition
 -  Not rated or not available
 - Soil Rating Points**
 -  Erosion
 -  Soil limitation within the rooting zone
 -  Excess water
 -  Climate condition
 -  Not rated or not available
- Water Features**
 -  Streams and Canals
- Transportation**
 -  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background**
 -  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kings County, California
 Survey Area Data: Version 9, Nov 26, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Irrigated Capability Subclass (Lemoore 14)

Irrigated Capability Subclass— Summary by Map Unit — Kings County, California (CA031)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
137	Lemoore sandy loam, partially drained	w	63.1	100.0%
Totals for Area of Interest			63.1	100.0%

Rating Options—Irrigated Capability Subclass (Lemoore 14)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Erosion Factors

Soil Erosion Factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

K Factor, Whole Soil (Lemoore 14)

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Custom Soil Resource Report
Map—K Factor, Whole Soil (Lemoore 14)



Map Scale: 1:3,590 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters

0 150 300 600 900 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  .02
-  .05
-  .10
-  .15
-  .17
-  .20
-  .24
-  .28
-  .32
-  .37
-  .43
-  .49
-  .55
-  .64
-  Not rated or not available

Soil Rating Lines

-  .02
-  .05
-  .10
-  .15
-  .17
-  .20

-  .24
-  .28
-  .32
-  .37
-  .43
-  .49
-  .55
-  .64
-  Not rated or not available

Soil Rating Points

-  .02
-  .05
-  .10
-  .15
-  .17
-  .20
-  .24
-  .28
-  .32
-  .37
-  .43
-  .49
-  .55
-  .64
-  Not rated or not available

Water Features

-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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Please rely on the bar scale on each map sheet for map measurements.

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 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

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 Survey Area Data: Version 9, Nov 26, 2013

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Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

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Table—K Factor, Whole Soil (Lemoore 14)

K Factor, Whole Soil— Summary by Map Unit — Kings County, California (CA031)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
137	Lemoore sandy loam, partially drained	.28	63.1	100.0%
Totals for Area of Interest			63.1	100.0%

Rating Options—K Factor, Whole Soil (Lemoore 14)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

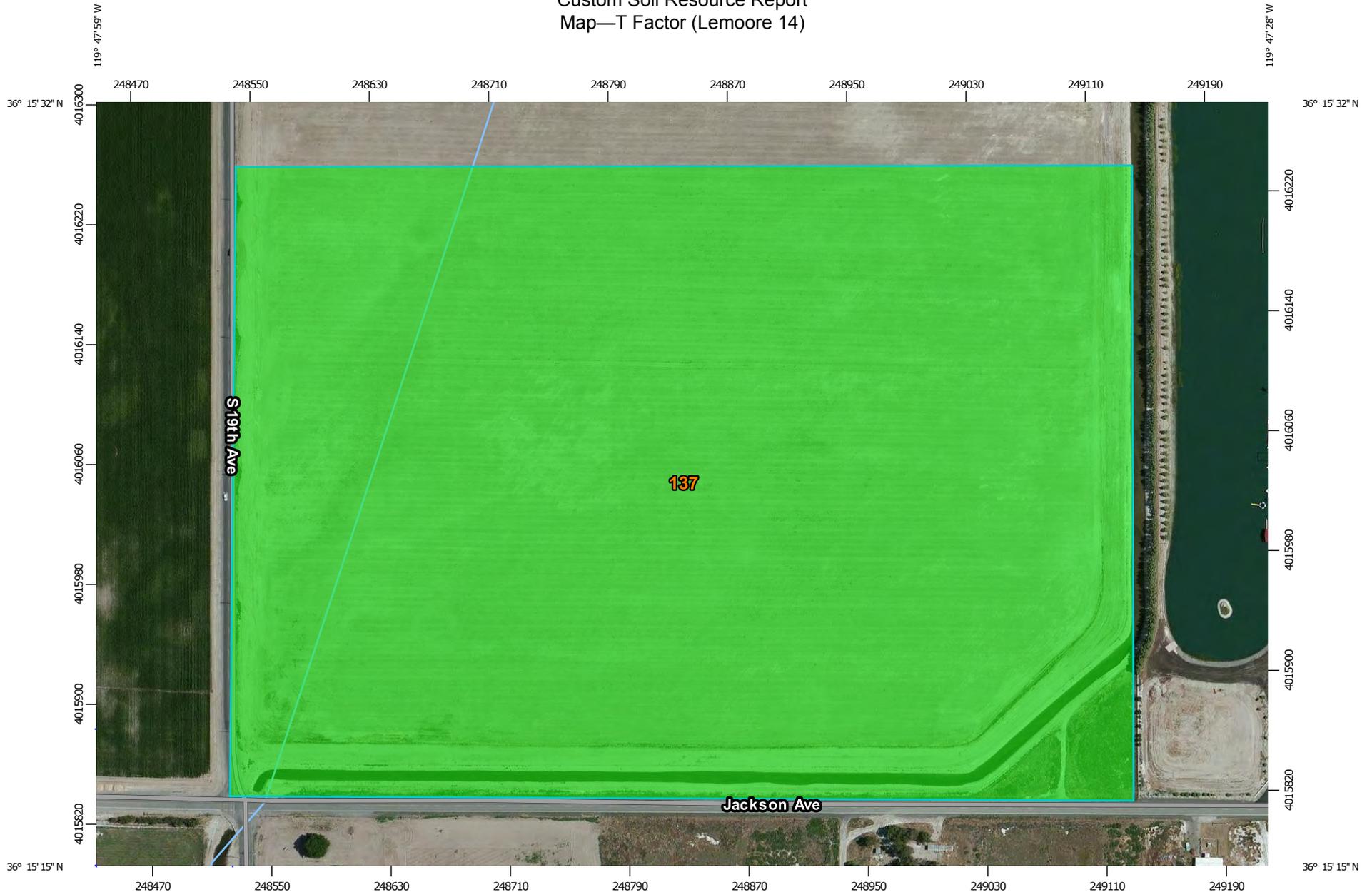
Tie-break Rule: Higher

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

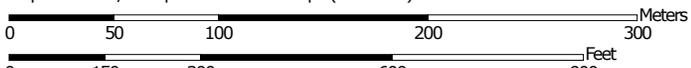
T Factor (Lemoore 14)

The T factor is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Custom Soil Resource Report
Map—T Factor (Lemoore 14)



Map Scale: 1:3,590 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84



MAP LEGEND

Area of Interest (AOI)
 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  1
-  2
-  3
-  4
-  5
-  Not rated or not available

Soil Rating Lines

-  1
-  2
-  3
-  4
-  5
-  Not rated or not available

Soil Rating Points

-  1
-  2
-  3
-  4
-  5
-  Not rated or not available

Water Features
 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background
 Aerial Photography

MAP INFORMATION

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 Survey Area Data: Version 9, Nov 26, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

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Table—T Factor (Lemoore 14)

T Factor— Summary by Map Unit — Kings County, California (CA031)				
Map unit symbol	Map unit name	Rating (tons per acre per year)	Acres in AOI	Percent of AOI
137	Lemoore sandy loam, partially drained	5	63.1	100.0%
Totals for Area of Interest			63.1	100.0%

Rating Options—T Factor (Lemoore 14)

Units of Measure: tons per acre per year

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

References

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APPENDIX B

CalEEMod Output Files

**IMMODO Lemoore 14
Kings County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	60.39	Acre	60.39	2,630,588.40	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	37
Climate Zone	3			Operational Year	2015
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 - The Lemoore 14 solar generation facility will be built on 60.39 acres.

Construction Phase - The proposed Project will be two phases, each phase will be five months long. There will be a total of 10 months of construction time. First phase will be completed in 2015, and the second phase will be completed in 2018.

Off-road Equipment - Grading equipment provided by solar installer.

Trips and VMT - Estimated construction crew provided by solar installer.

Grading - Site area is 19 acres.

Vehicle Trips - Vehicle trips estimated by solar client to be 84 round trips per year.

Consumer Products - The proposed Project is a solar generation facility and would not involve any consumer product emissions.

Area Coating - The proposed Project does not involve any architectural coatings.

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	0	150
tblConstructionPhase	NumDays	1,110.00	66.00
tblConstructionPhase	NumDays	1,110.00	21.00
tblConstructionPhase	NumDays	1,110.00	66.00
tblConstructionPhase	NumDays	1,110.00	45.00
tblConstructionPhase	NumDays	40.00	23.00
tblConstructionPhase	PhaseEndDate	1/30/2015	2/1/2015
tblConstructionPhase	PhaseEndDate	5/4/2015	12/1/2017
tblConstructionPhase	PhaseEndDate	2/2/2018	2/3/2018
tblConstructionPhase	PhaseStartDate	2/2/2015	9/1/2017
tblConsumerProducts	ROG_EF	2.14E-05	1E-07
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00

tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	431.00	0.00
tblTripsAndVMT	VendorTripNumber	431.00	0.00
tblTripsAndVMT	VendorTripNumber	431.00	0.00
tblTripsAndVMT	VendorTripNumber	431.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,105.00	85.00
tblTripsAndVMT	WorkerTripNumber	1,105.00	85.00
tblTripsAndVMT	WorkerTripNumber	1,105.00	85.00
tblTripsAndVMT	WorkerTripNumber	1,105.00	85.00
tblVehicleTrips	ST_TR	0.00	0.23
tblVehicleTrips	SU_TR	0.00	0.23
tblVehicleTrips	WD_TR	0.00	0.23

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					
2014	0.2486	1.7044	1.3312	1.6100e-003	0.2317	0.1088	0.3405	0.1206	0.1016	0.2222	0.0000	146.0034	146.0034	0.0348	0.0000	146.7333
2015	0.0582	0.3387	0.2688	3.9000e-004	7.6600e-003	0.0234	0.0310	2.0400e-003	0.0220	0.0240	0.0000	34.0027	34.0027	7.2000e-003	0.0000	34.1539
2017	0.1907	1.1581	0.9693	1.5000e-003	0.0295	0.0768	0.1064	7.8400e-003	0.0722	0.0800	0.0000	128.1610	128.1610	0.0268	0.0000	128.7245
2018	0.0485	0.2967	0.2681	4.4000e-004	8.6100e-003	0.0188	0.0274	2.2900e-003	0.0176	0.0199	0.0000	36.6117	36.6117	7.6400e-003	0.0000	36.7721
Total	0.5460	3.4979	2.8374	3.9400e-003	0.2775	0.2277	0.5052	0.1327	0.2134	0.3461	0.0000	344.7789	344.7789	0.0764	0.0000	346.3839

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					
2014	0.2483	1.7024	1.3299	1.6000e-003	0.1216	0.1086	0.2302	0.0588	0.1015	0.1602	0.0000	145.8568	145.8568	0.0347	0.0000	146.5859
2015	0.0582	0.3383	0.2685	3.9000e-004	8.9500e-003	0.0234	0.0323	2.3500e-003	0.0220	0.0243	0.0000	33.9708	33.9708	7.1900e-003	0.0000	34.1218
2017	0.1906	1.1567	0.9684	1.5000e-003	0.0349	0.0768	0.1117	9.1700e-003	0.0721	0.0813	0.0000	128.0385	128.0385	0.0268	0.0000	128.6014
2018	0.0484	0.2964	0.2679	4.4000e-004	0.0102	0.0187	0.0289	2.6700e-003	0.0176	0.0203	0.0000	36.5765	36.5765	7.6300e-003	0.0000	36.7367
Total	0.5455	3.4938	2.8347	3.9300e-003	0.1756	0.2275	0.4031	0.0730	0.2131	0.2861	0.0000	344.4427	344.4427	0.0763	0.0000	346.0458

	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
Percent Reduction	0.0861	0.1166	0.0973	0.2538	36.7148	0.1142	20.2209	45.0313	0.1219	17.3423	0.0000	0.0975	0.0975	0.1178	0.0000	0.0976

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	1.4198	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003
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	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
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	1.4198	1.0000e-005	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003

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	1.4198	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003
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	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
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	1.4198	1.0000e-005	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003

	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
Percent Reduction	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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading - Phase 1	Site Preparation	9/1/2014	10/1/2014	5	23	
2	Solar Panel Installation - Phase 1	Building Construction	10/2/2014	1/1/2015	5	66	
3	System Testing, Commissioning & Clean-up	Building Construction	1/2/2015	2/1/2015	5	21	
4	Solar Panel Installation - Phase 2	Building Construction	9/1/2017	12/1/2017	5	66	
5	System Testing, Commissioning & Clean up - Phase 2	Building Construction	12/2/2017	2/3/2018	5	45	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading - Phase 1	Rubber Tired Dozers	3	8.00	255	0.40
Grading - Phase 1	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Solar Panel Installation - Phase 1	Cranes	1	7.00	226	0.29
Solar Panel Installation - Phase 1	Forklifts	3	8.00	89	0.20
Solar Panel Installation - Phase 1	Generator Sets	1	8.00	84	0.74
Solar Panel Installation - Phase 1	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Solar Panel Installation - Phase 1	Welders	1	8.00	46	0.45
System Testing, Commissioning & Clean-up	Cranes	1	7.00	226	0.29
System Testing, Commissioning & Clean-up	Forklifts	3	8.00	89	0.20
System Testing, Commissioning & Clean-up	Generator Sets	1	8.00	84	0.74
System Testing, Commissioning & Clean-up	Tractors/Loaders/Backhoes	3	7.00	97	0.37
System Testing, Commissioning & Clean-up	Welders	1	8.00	46	0.45
Solar Panel Installation - Phase 2	Cranes	1	7.00	226	0.29
Solar Panel Installation - Phase 2	Forklifts	3	8.00	89	0.20
Solar Panel Installation - Phase 2	Generator Sets	1	8.00	84	0.74
Solar Panel Installation - Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Solar Panel Installation - Phase 2	Welders	1	8.00	46	0.45
System Testing, Commissioning & Clean up - Phase 2	Cranes	1	7.00	226	0.29
System Testing, Commissioning & Clean up - Phase 2	Forklifts	3	8.00	89	0.20
System Testing, Commissioning & Clean up - Phase 2	Generator Sets	1	8.00	84	0.74
System Testing, Commissioning & Clean up - Phase 2	Tractors/Loaders/Backhoes	3	7.00	97	0.37
System Testing, Commissioning & Clean up - Phase 2	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
Grading - Phase 1	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar Panel Installation - Phase 1	9	85.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
System Testing, Commissioning & Closeout	9	85.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Solar Panel Installation - Phase 2	9	85.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
System Testing, Commissioning & Closeout	9	85.00	0.00	10.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - Phase 1 - 2014

Unmitigated Construction On-Site

Acres of Grading: 0

	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					0.2078	0.0000	0.2078	0.1142	0.0000	0.1142	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0609	0.6626	0.4941	4.5000e-004		0.0361	0.0361		0.0332	0.0332	0.0000	43.3569	43.3569	0.0128	0.0000	43.6259
Total	0.0609	0.6626	0.4941	4.5000e-004	0.2078	0.0361	0.2438	0.1142	0.0332	0.1474	0.0000	43.3569	43.3569	0.0128	0.0000	43.6259

3.2 Grading - Phase 1 - 2014

Unmitigated Construction Off-Site

Acres of Grading: 0

	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	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
Worker	4.3000e-003	1.6800e-003	0.0154	2.0000e-005	1.6600e-003	2.0000e-005	1.6800e-003	4.4000e-004	1.0000e-005	4.6000e-004	0.0000	1.5631	1.5631	1.1000e-004	0.0000	1.5655
Total	4.3000e-003	1.6800e-003	0.0154	2.0000e-005	1.6600e-003	2.0000e-005	1.6800e-003	4.4000e-004	1.0000e-005	4.6000e-004	0.0000	1.5631	1.5631	1.1000e-004	0.0000	1.5655

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					0.0935	0.0000	0.0935	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0608	0.6618	0.4935	4.5000e-004		0.0360	0.0360		0.0332	0.0332	0.0000	43.3053	43.3053	0.0128	0.0000	43.5740
Total	0.0608	0.6618	0.4935	4.5000e-004	0.0935	0.0360	0.1295	0.0514	0.0332	0.0846	0.0000	43.3053	43.3053	0.0128	0.0000	43.5740

3.2 Grading - Phase 1 - 2014

Mitigated Construction Off-Site

Acres of Grading: 0

	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	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
Worker	4.3000e-003	1.6800e-003	0.0154	2.0000e-005	1.6600e-003	2.0000e-005	1.6800e-003	4.4000e-004	1.0000e-005	4.6000e-004	0.0000	1.5631	1.5631	1.1000e-004	0.0000	1.5655
Total	4.3000e-003	1.6800e-003	0.0154	2.0000e-005	1.6600e-003	2.0000e-005	1.6800e-003	4.4000e-004	1.0000e-005	4.6000e-004	0.0000	1.5631	1.5631	1.1000e-004	0.0000	1.5655

3.3 Solar Panel Installation - Phase 1 - 2014

Unmitigated Construction On-Site

Acres of Grading: 0

	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	0.1257	1.0158	0.6152	8.7000e-004		0.0724	0.0724		0.0682	0.0682	0.0000	79.8766	79.8766	0.0203	0.0000	80.3031
Total	0.1257	1.0158	0.6152	8.7000e-004		0.0724	0.0724		0.0682	0.0682	0.0000	79.8766	79.8766	0.0203	0.0000	80.3031

3.3 Solar Panel Installation - Phase 1 - 2014

Unmitigated Construction Off-Site

Acres of Grading: 0

	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	3.7000e-004	1.8600e-003	1.2800e-003	0.0000	9.0000e-005	3.0000e-005	1.2000e-004	2.0000e-005	3.0000e-005	5.0000e-005	0.0000	0.3461	0.3461	0.0000	0.0000	0.3462
Vendor	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
Worker	0.0573	0.0225	0.2053	2.6000e-004	0.0222	2.1000e-004	0.0224	5.9000e-003	1.9000e-004	6.0800e-003	0.0000	20.8607	20.8607	1.5200e-003	0.0000	20.8926
Total	0.0577	0.0243	0.2065	2.6000e-004	0.0223	2.4000e-004	0.0225	5.9200e-003	2.2000e-004	6.1300e-003	0.0000	21.2068	21.2068	1.5200e-003	0.0000	21.2388

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	0.1256	1.0145	0.6145	8.7000e-004		0.0723	0.0723		0.0681	0.0681	0.0000	79.7816	79.7816	0.0203	0.0000	80.2076
Total	0.1256	1.0145	0.6145	8.7000e-004		0.0723	0.0723		0.0681	0.0681	0.0000	79.7816	79.7816	0.0203	0.0000	80.2076

3.3 Solar Panel Installation - Phase 1 - 2014

Mitigated Construction Off-Site

Acres of Grading: 0

	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	3.7000e-004	1.8600e-003	1.2800e-003	0.0000	4.2100e-003	3.0000e-005	4.2400e-003	1.0400e-003	3.0000e-005	1.0700e-003	0.0000	0.3461	0.3461	0.0000	0.0000	0.3462
Vendor	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
Worker	0.0573	0.0225	0.2053	2.6000e-004	0.0222	2.1000e-004	0.0224	5.9000e-003	1.9000e-004	6.0800e-003	0.0000	20.8607	20.8607	1.5200e-003	0.0000	20.8926
Total	0.0577	0.0243	0.2065	2.6000e-004	0.0264	2.4000e-004	0.0266	6.9400e-003	2.2000e-004	7.1500e-003	0.0000	21.2068	21.2068	1.5200e-003	0.0000	21.2388

3.3 Solar Panel Installation - Phase 1 - 2015

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	1.8300e-003	0.0150	9.3700e-003	1.0000e-005		1.0600e-003	1.0600e-003		1.0000e-003	1.0000e-003	0.0000	1.2200	1.2200	3.1000e-004	0.0000	1.2264
Total	1.8300e-003	0.0150	9.3700e-003	1.0000e-005		1.0600e-003	1.0600e-003		1.0000e-003	1.0000e-003	0.0000	1.2200	1.2200	3.1000e-004	0.0000	1.2264

3.3 Solar Panel Installation - Phase 1 - 2015

Unmitigated Construction Off-Site

Acres of Grading: 0

	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	1.0000e-005	2.0000e-005	2.0000e-005	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	5.2500e-003	5.2500e-003	0.0000	0.0000	5.2500e-003
Vendor	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
Worker	8.0000e-004	3.1000e-004	2.7900e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3096	0.3096	2.0000e-005	0.0000	0.3101
Total	8.1000e-004	3.3000e-004	2.8100e-003	0.0000	4.0000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3149	0.3149	2.0000e-005	0.0000	0.3153

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	1.8300e-003	0.0150	9.3600e-003	1.0000e-005		1.0600e-003	1.0600e-003		9.9000e-004	9.9000e-004	0.0000	1.2185	1.2185	3.1000e-004	0.0000	1.2249
Total	1.8300e-003	0.0150	9.3600e-003	1.0000e-005		1.0600e-003	1.0600e-003		9.9000e-004	9.9000e-004	0.0000	1.2185	1.2185	3.1000e-004	0.0000	1.2249

3.3 Solar Panel Installation - Phase 1 - 2015

Mitigated Construction Off-Site

Acres of Grading: 0

	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	1.0000e-005	2.0000e-005	2.0000e-005	0.0000	6.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	5.2500e-003	5.2500e-003	0.0000	0.0000	5.2500e-003
Vendor	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
Worker	8.0000e-004	3.1000e-004	2.7900e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3096	0.3096	2.0000e-005	0.0000	0.3101
Total	8.1000e-004	3.3000e-004	2.8100e-003	0.0000	4.0000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3149	0.3149	2.0000e-005	0.0000	0.3153

3.4 System Testing, Commissioning & Clean-up - 2015

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	0.0384	0.3153	0.1968	2.8000e-004		0.0222	0.0222		0.0209	0.0209	0.0000	25.6194	25.6194	6.4300e-003	0.0000	25.7544
Total	0.0384	0.3153	0.1968	2.8000e-004		0.0222	0.0222		0.0209	0.0209	0.0000	25.6194	25.6194	6.4300e-003	0.0000	25.7544

3.4 System Testing, Commissioning & Clean-up - 2015

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	3.4000e-004	1.5900e-003	1.2200e-003	0.0000	9.0000e-005	3.0000e-005	1.1000e-004	2.0000e-005	2.0000e-005	5.0000e-005	0.0000	0.3466	0.3466	0.0000	0.0000	0.3467
Vendor	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
Worker	0.0168	6.4300e-003	0.0585	8.0000e-005	7.1700e-003	6.0000e-005	7.2300e-003	1.9100e-003	6.0000e-005	1.9600e-003	0.0000	6.5019	6.5019	4.4000e-004	0.0000	6.5112
Total	0.0172	8.0200e-003	0.0598	8.0000e-005	7.2600e-003	9.0000e-005	7.3400e-003	1.9300e-003	8.0000e-005	2.0100e-003	0.0000	6.8485	6.8485	4.4000e-004	0.0000	6.8578

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	0.0384	0.3149	0.1966	2.8000e-004		0.0222	0.0222		0.0209	0.0209	0.0000	25.5889	25.5889	6.4200e-003	0.0000	25.7238
Total	0.0384	0.3149	0.1966	2.8000e-004		0.0222	0.0222		0.0209	0.0209	0.0000	25.5889	25.5889	6.4200e-003	0.0000	25.7238

3.4 System Testing, Commissioning & Clean-up - 2015

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	3.4000e-004	1.5900e-003	1.2200e-003	0.0000	1.3700e-003	3.0000e-005	1.4000e-003	3.4000e-004	2.0000e-005	3.6000e-004	0.0000	0.3466	0.3466	0.0000	0.0000	0.3467
Vendor	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
Worker	0.0168	6.4300e-003	0.0585	8.0000e-005	7.1700e-003	6.0000e-005	7.2300e-003	1.9100e-003	6.0000e-005	1.9600e-003	0.0000	6.5019	6.5019	4.4000e-004	0.0000	6.5112
Total	0.0172	8.0200e-003	0.0598	8.0000e-005	8.5400e-003	9.0000e-005	8.6300e-003	2.2500e-003	8.0000e-005	2.3200e-003	0.0000	6.8485	6.8485	4.4000e-004	0.0000	6.8578

3.5 Solar Panel Installation - Phase 2 - 2017

Unmitigated Construction On-Site

Acres of Paving: 0

	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	0.1024	0.8714	0.5983	8.8000e-004		0.0588	0.0588		0.0552	0.0552	0.0000	79.0281	79.0281	0.0195	0.0000	79.4366
Total	0.1024	0.8714	0.5983	8.8000e-004		0.0588	0.0588		0.0552	0.0552	0.0000	79.0281	79.0281	0.0195	0.0000	79.4366

3.5 Solar Panel Installation - Phase 2 - 2017

Unmitigated Construction Off-Site

Acres of Paving: 0

	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	2.6000e-004	1.1800e-003	1.0500e-003	0.0000	9.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.3362	0.3362	0.0000	0.0000	0.3363
Vendor	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
Worker	0.0437	0.0161	0.1445	2.6000e-004	0.0225	1.7000e-004	0.0227	5.9900e-003	1.6000e-004	6.1500e-003	0.0000	18.9554	18.9554	1.1400e-003	0.0000	18.9793
Total	0.0440	0.0173	0.1455	2.6000e-004	0.0226	1.9000e-004	0.0228	6.0100e-003	1.8000e-004	6.1900e-003	0.0000	19.2916	19.2916	1.1400e-003	0.0000	19.3156

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	0.1023	0.8704	0.5976	8.8000e-004		0.0587	0.0587		0.0551	0.0551	0.0000	78.9341	78.9341	0.0194	0.0000	79.3421
Total	0.1023	0.8704	0.5976	8.8000e-004		0.0587	0.0587		0.0551	0.0551	0.0000	78.9341	78.9341	0.0194	0.0000	79.3421

3.5 Solar Panel Installation - Phase 2 - 2017

Mitigated Construction Off-Site

Acres of Paving: 0

	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	2.6000e-004	1.1800e-003	1.0500e-003	0.0000	4.2700e-003	2.0000e-005	4.2900e-003	1.0500e-003	2.0000e-005	1.0700e-003	0.0000	0.3362	0.3362	0.0000	0.0000	0.3363
Vendor	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
Worker	0.0437	0.0161	0.1445	2.6000e-004	0.0225	1.7000e-004	0.0227	5.9900e-003	1.6000e-004	6.1500e-003	0.0000	18.9554	18.9554	1.1400e-003	0.0000	18.9793
Total	0.0440	0.0173	0.1455	2.6000e-004	0.0268	1.9000e-004	0.0270	7.0400e-003	1.8000e-004	7.2200e-003	0.0000	19.2916	19.2916	1.1400e-003	0.0000	19.3156

3.6 System Testing, Commissioning & Clean up - Phase 2 - 2017

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	0.0310	0.2641	0.1813	2.7000e-004		0.0178	0.0178		0.0167	0.0167	0.0000	23.9479	23.9479	5.8900e-003	0.0000	24.0717
Total	0.0310	0.2641	0.1813	2.7000e-004		0.0178	0.0178		0.0167	0.0167	0.0000	23.9479	23.9479	5.8900e-003	0.0000	24.0717

3.6 System Testing, Commissioning & Clean up - Phase 2 - 2017

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	1.1000e-004	5.2000e-004	4.7000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.1494	0.1494	0.0000	0.0000	0.1495
Vendor	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
Worker	0.0133	4.8700e-003	0.0438	8.0000e-005	6.8300e-003	5.0000e-005	6.8800e-003	1.8100e-003	5.0000e-005	1.8600e-003	0.0000	5.7441	5.7441	3.5000e-004	0.0000	5.7513
Total	0.0134	5.3900e-003	0.0443	8.0000e-005	6.9000e-003	6.0000e-005	6.9600e-003	1.8300e-003	6.0000e-005	1.8900e-003	0.0000	5.8935	5.8935	3.5000e-004	0.0000	5.9008

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	0.0310	0.2637	0.1811	2.7000e-004		0.0178	0.0178		0.0167	0.0167	0.0000	23.9194	23.9194	5.8900e-003	0.0000	24.0431
Total	0.0310	0.2637	0.1811	2.7000e-004		0.0178	0.0178		0.0167	0.0167	0.0000	23.9194	23.9194	5.8900e-003	0.0000	24.0431

3.6 System Testing, Commissioning & Clean up - Phase 2 - 2017

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	1.1000e-004	5.2000e-004	4.7000e-004	0.0000	1.3000e-003	1.0000e-005	1.3100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.1494	0.1494	0.0000	0.0000	0.1495
Vendor	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
Worker	0.0133	4.8700e-003	0.0438	8.0000e-005	6.8300e-003	5.0000e-005	6.8800e-003	1.8100e-003	5.0000e-005	1.8600e-003	0.0000	5.7441	5.7441	3.5000e-004	0.0000	5.7513
Total	0.0134	5.3900e-003	0.0443	8.0000e-005	8.1300e-003	6.0000e-005	8.1900e-003	2.1300e-003	6.0000e-005	2.1900e-003	0.0000	5.8935	5.8935	3.5000e-004	0.0000	5.9008

3.6 System Testing, Commissioning & Clean up - Phase 2 - 2018

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	0.0334	0.2908	0.2192	3.4000e-004		0.0187	0.0187		0.0176	0.0176	0.0000	29.5962	29.5962	7.2400e-003	0.0000	29.7483
Total	0.0334	0.2908	0.2192	3.4000e-004		0.0187	0.0187		0.0176	0.0176	0.0000	29.5962	29.5962	7.2400e-003	0.0000	29.7483

3.6 System Testing, Commissioning & Clean up - Phase 2 - 2018

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	1.0000e-004	5.9000e-004	5.4000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.1835	0.1835	0.0000	0.0000	0.1835
Vendor	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
Worker	0.0150	5.4000e-003	0.0484	1.0000e-004	8.5400e-003	6.0000e-005	8.6000e-003	2.2700e-003	6.0000e-005	2.3300e-003	0.0000	6.8321	6.8321	3.9000e-004	0.0000	6.8403
Total	0.0151	5.9900e-003	0.0490	1.0000e-004	8.6200e-003	7.0000e-005	8.6900e-003	2.2900e-003	7.0000e-005	2.3600e-003	0.0000	7.0155	7.0155	3.9000e-004	0.0000	7.0238

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	0.0333	0.2904	0.2189	3.3000e-004		0.0187	0.0187		0.0175	0.0175	0.0000	29.5610	29.5610	7.2300e-003	0.0000	29.7129
Total	0.0333	0.2904	0.2189	3.3000e-004		0.0187	0.0187		0.0175	0.0175	0.0000	29.5610	29.5610	7.2300e-003	0.0000	29.7129

3.6 System Testing, Commissioning & Clean up - Phase 2 - 2018

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	1.0000e-004	5.9000e-004	5.4000e-004	0.0000	1.6200e-003	1.0000e-005	1.6300e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	0.1835	0.1835	0.0000	0.0000	0.1835
Vendor	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
Worker	0.0150	5.4000e-003	0.0484	1.0000e-004	8.5400e-003	6.0000e-005	8.6000e-003	2.2700e-003	6.0000e-005	2.3300e-003	0.0000	6.8321	6.8321	3.9000e-004	0.0000	6.8403
Total	0.0151	5.9900e-003	0.0490	1.0000e-004	0.0102	7.0000e-005	0.0102	2.6700e-003	7.0000e-005	2.7400e-003	0.0000	7.0155	7.0155	3.9000e-004	0.0000	7.0238

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	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
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	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.385104	0.051986	0.133062	0.174832	0.051556	0.006108	0.013415	0.169280	0.002018	0.002309	0.007111	0.001149	0.002070

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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					
Other Non-Asphalt Surfaces	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							

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	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			
Other Non-Asphalt Surfaces	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	1.4198	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003
Unmitigated	1.4198	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003

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	1.3717					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003
Total	1.4198	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003

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	1.3717					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0480					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003
Total	1.4198	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1400e-003

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			
Other Non-Asphalt Surfaces	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			
Other Non-Asphalt Surfaces	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			
Other Non-Asphalt Surfaces	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			
Other Non-Asphalt Surfaces	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
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10.0 Vegetation

APPENDIX C

BIOLOGICAL EVALUATION



LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

LEMOORE 14 SOLAR PROJECT BIOLOGICAL EVALUATION KINGS COUNTY, CALIFORNIA

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EXECUTIVE SUMMARY

Live Oak Associates, Inc. (LOA) conducted an investigation of the biological resources of the Lemoore 14 Solar Project site in Kings County, California, and evaluated likely impacts to such resources resulting from development of these facilities. The following report is an analysis of impacts to the biological resources on or within the vicinity of the project. The approximately 53 acre site consists of an agricultural field within a region dominated by similar agricultural lands. The project site is located approximately one mile south of the City of Lemoore. On July 22, 2014, LOA biologist Jeff Gurule surveyed the site for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

The project site consisted of a disced field supporting sparse weedy herbaceous vegetation. The project site is situated within a region dominated by commercial, rural residential, and agricultural land uses. The site is characterized by a single habitat/land use, agricultural field.

Any native habitats once present on the site have been heavily altered by human enterprise such that the site no longer provides suitable habitat for any locally occurring special status plant species; hence, the proposed project will not impact special status plants. Project impacts will also be less than significant for wildlife movement corridors, jurisdictional waters, sensitive habitats, and many special status animal species that may occasionally forage on the project site. Project impacts to Swainson's hawk foraging habitat have been calculated and determined to be less than significant. However, project construction during the nesting season may result in disturbance to nesting Swainson's hawks such that nest failure may result. Mitigations to reduce or eliminate direct and indirect impacts to nesting Swainson's hawks include avoidance of major project construction during the nesting season, and preconstruction surveys and buffers around active nests if major construction activity is to occur within the nesting season.

The project may also result in impacts to nesting birds protected under the federal Migratory Bird Treaty Act. Birds nesting on or adjacent to the project site have the potential to be killed or disturbed by construction activities. Preconstruction surveys and avoidance, should active nests be found, will reduce impacts to raptors, and other nesting birds that are protected by the federal Migratory Bird Treaty Act, to a less than significant level. Preconstruction surveys and avoidance or passive relocation will reduce impacts to burrowing owls to a less than significant level. Construction related mortality of San Joaquin kit fox poses a potentially significant impact. Preconstruction surveys and avoidance and minimization measures consistent with the USFWS *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* will reduce impacts to a less than significant level.

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1.0 INTRODUCTION

The technical report that follows describes the biotic resources of the Lemoore 14 Solar Project site (hereafter referred to as the “project site” or “site”), and evaluates possible impacts to those resources that could result from site development.

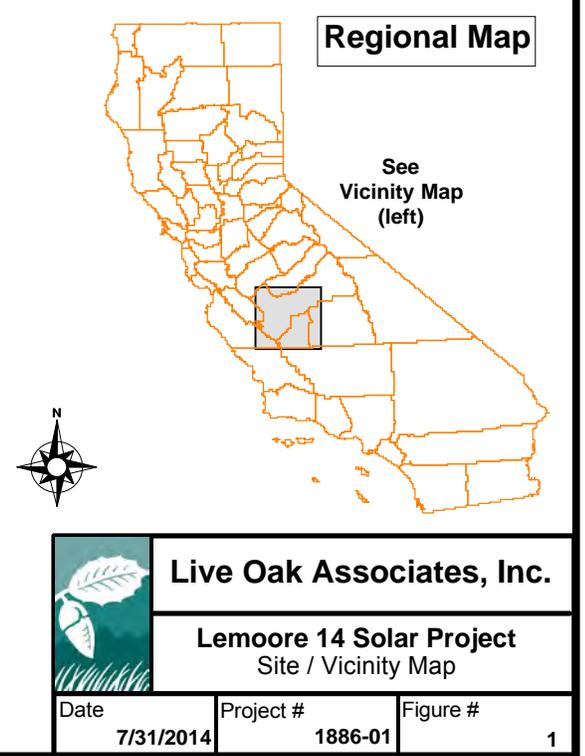
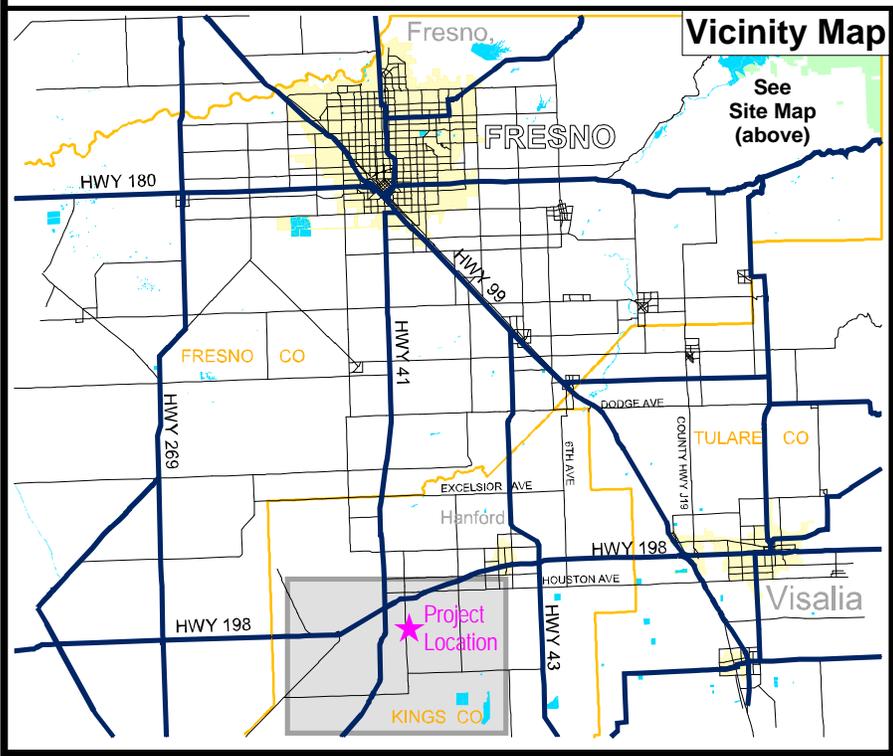
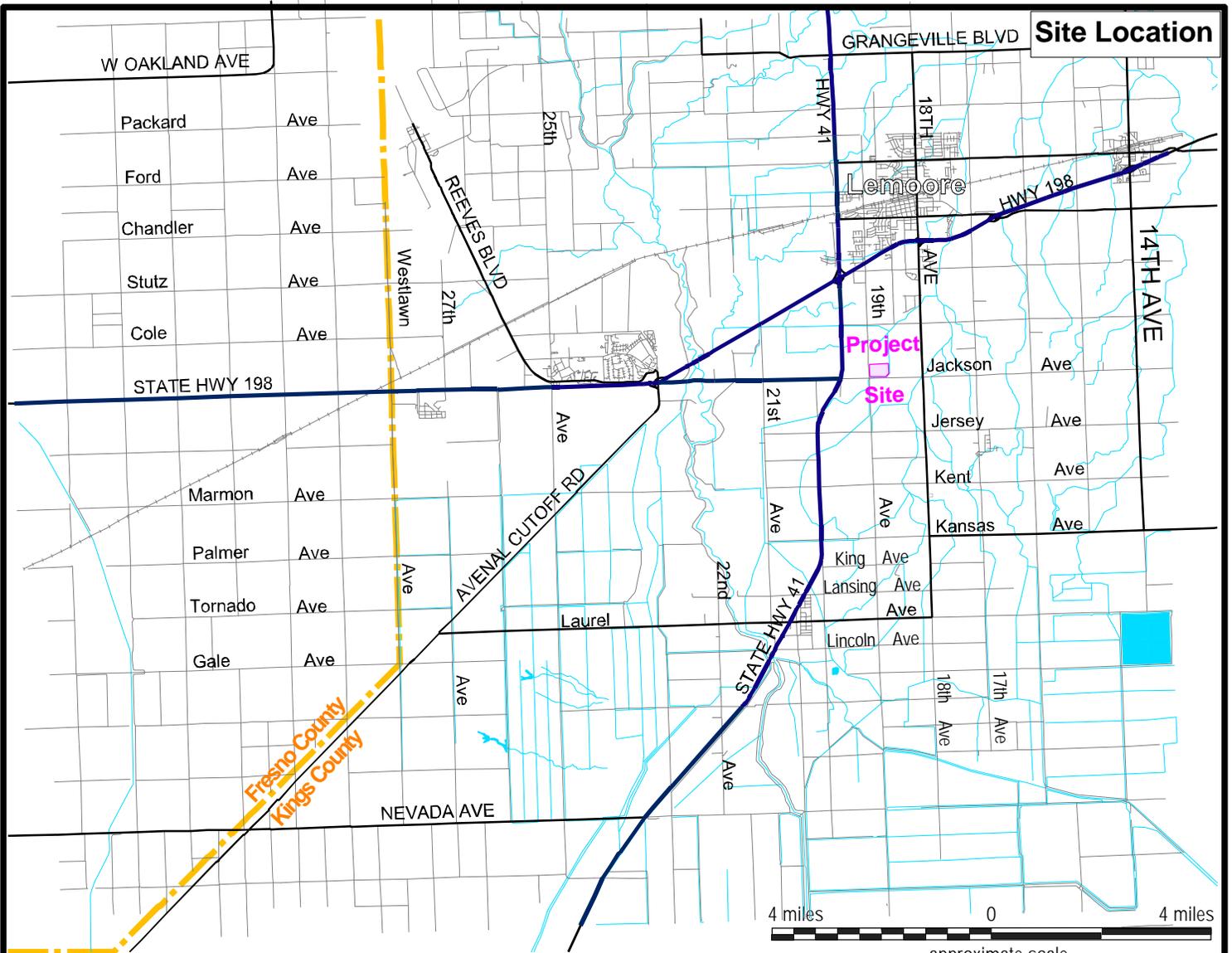
1.1 PROJECT LOCATION AND DESCRIPTION

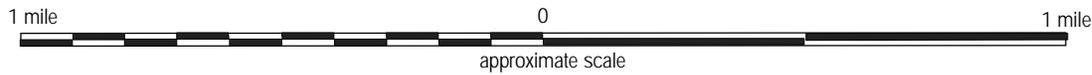
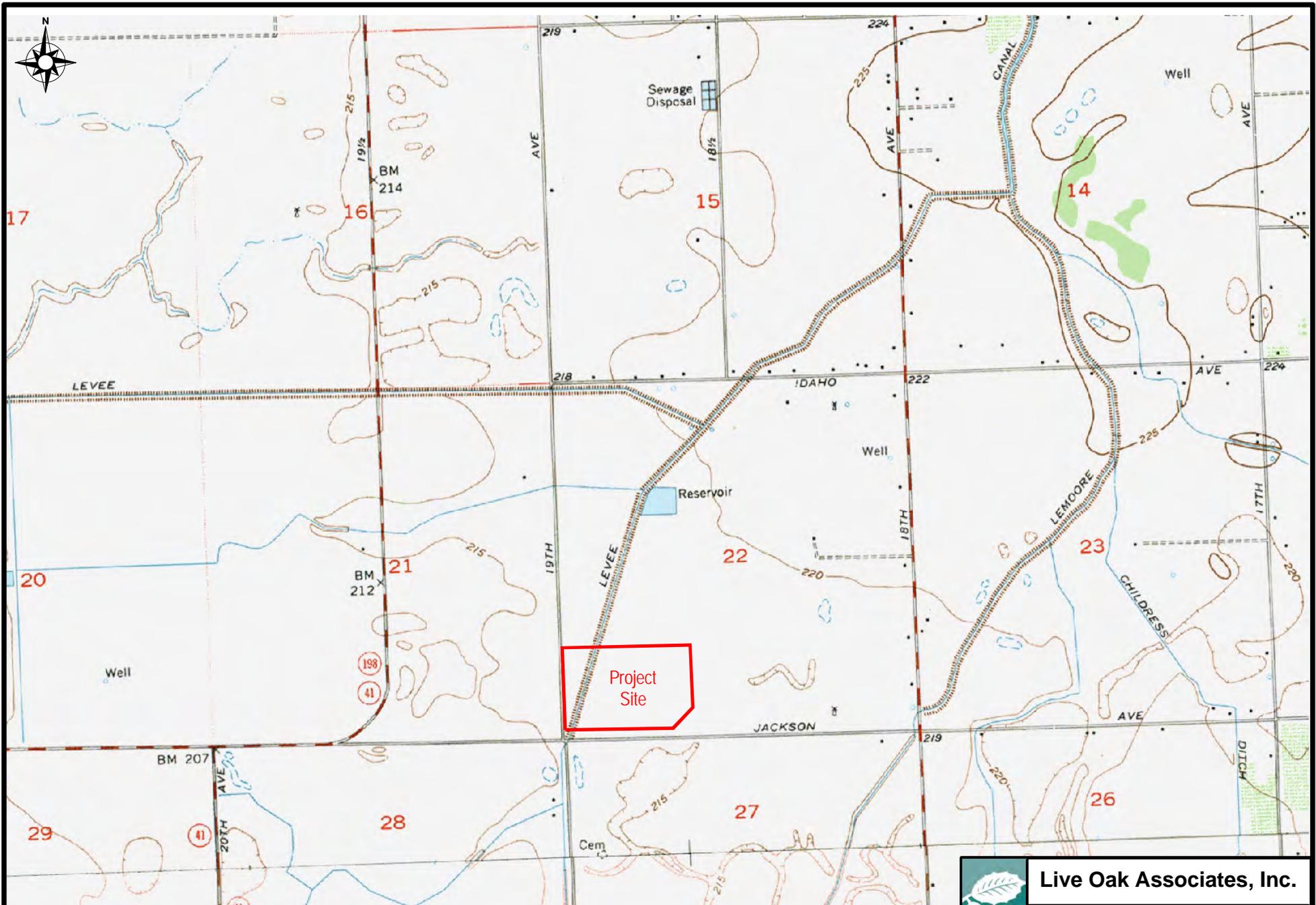
The project occupies approximately 53 acres within APNs 024-080-036/037/038. The project site is located at the northeast corner of the intersection of Jackson Ave and 19th Ave, approximately one mile south of the City of Lemoore in Kings County, CA (Figure 1). The project site is within the Lemoore USGS 7.5 minute quadrangle; Section 22, Township 19 South, Range 20 East, Mt. Diablo Base and Meridian (Figure 2). The proposed project is the construction and operation of a 6 MW solar facility. The facility would consist of photovoltaic (PV) panels, inverter station, and an 8ft high perimeter chain link fence with a 5” to 7” opening along the bottom to allow for passage of the San Joaquin kit fox (*Vulpes macrotis mutica*). Groundcover beneath the PV panels will remain earthen based.

1.2 REPORT OBJECTIVES

ImMODO California 1 LLC is submitting a Conditional Use Permit to Kings County for the construction and operation of the solar facilities and as such is subject to the requirements of the California Environmental Quality Act (CEQA). The development of photovoltaic projects may damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the CEQA, and/or covered by policies and ordinances of Kings County. This report addresses issues related to: 1) Sensitive biotic resources occurring on the project site; 2) The federal, state, and local laws regulating such resources; and 3) Mitigation measures that may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies. As such, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources.





From USGS
Lemoore 7.5' Quadrangle 1954

	Live Oak Associates, Inc.		
	Lemoore 14 Solar Project U.S.G.S. Quadrangle		
Date	Project #	Figure #	
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- Make reasonable inferences about the biological resources that could occur onsite based on habitat suitability and the proximity of the site to a species' known range.
- Summarize all state and federal natural resource protection laws that may be relevant to possible future site development.
- Identify and discuss project impacts to biological resources likely to occur on the site within the context of CEQA or any state or federal laws.
- Identify avoidance and mitigation measures that would reduce impacts to a less-than-significant level (as identified by CEQA) and are generally consistent with recommendations of the resource agencies for affected biological resources.

1.3 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the project site discussed in Section 2.0. Sources of information used in the preparation of this analysis included: (1) the *California Natural Diversity Data Base* (CDFW 2014), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2014), and (3) manuals, reports, and references related to plants and animals of the San Joaquin Valley region. A reconnaissance-level field survey of the project site was conducted on July 22, 2014 by Live Oak Associates, Inc. (LOA) biologist Jeff Gurule. The survey consisted of walking transects spaced approximately 75 feet apart, covering the entire site. During this time principal land uses of the site were identified and the constituent plants and animals were noted. All open burrows were visually inspected on and immediately adjacent to the site. Field surveys conducted for this study were sufficient to assess the significance of possible biological impacts associated with the development plans for the project site.

2.0 EXISTING CONDITIONS

The project site is located in the middle of the San Joaquin Valley of California south of the Lemoore city limits in Kings County. At the time of the survey the project site consisted of a sparsely vegetated, disced agricultural field (Figure 3). The site has been regularly disturbed by annual discing, canal removal, and other agriculture-related activities for at least the last 20 years. In the 1990's a canal running diagonally through the site was filled and rerouted to its current location at the east and south of the project site.

The topography of the project site is level at an elevation of approximately 220 feet National Geodetic Vertical Datum (NGVD). Natural drainage features such as creeks, ponds, vernal pools, etc. are not present on the project site.

The project site contains one soil mapping unit; Lemoore sandy loam, partially drained. This soil mapping unit is classified as hydric in the California Hydric Soils List. Hydric soils are soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part; under sufficiently wet conditions, they support the growth and regeneration of hydrophytic vegetation. However, soils of the site have been significantly altered through decades of agricultural activity such as grading, scraping, discing, and the construction and deconstruction of an historical canal that once ran diagonally through the site. As such, any native soil characteristics potentially supporting sensitive biological resources have been destroyed or significantly altered.

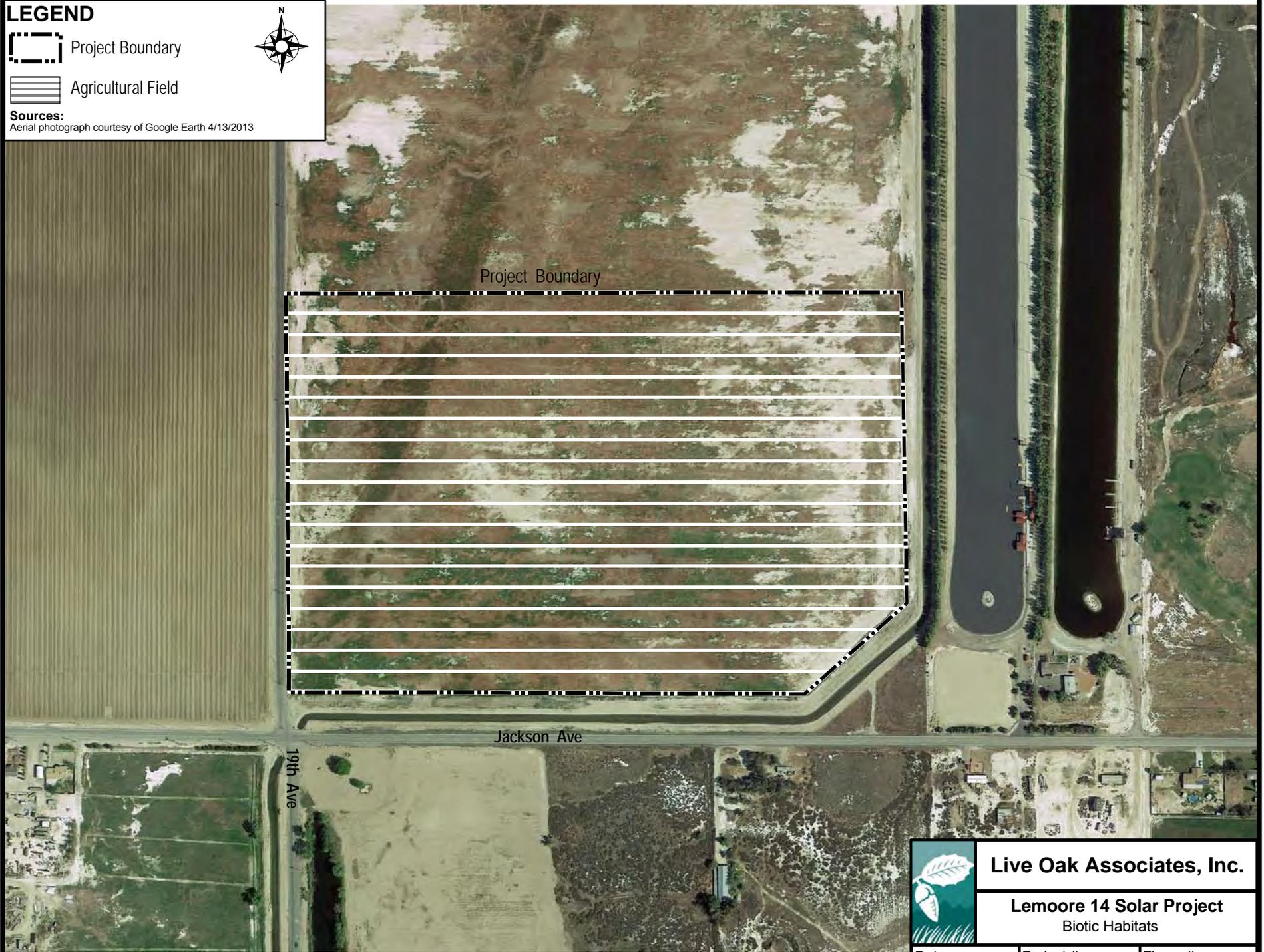
The project site is located in a region of California having a Mediterranean climate. Summers are dry and typically quite warm with daytime temperatures commonly exceeding 100° Fahrenheit. Winters are rainy and cool with daytime temperatures rarely exceeding 65° Fahrenheit. Annual precipitation in the general vicinity of the project site is highly variable from year to year with a mean annual rainfall of approximately 12 inches, most of which falls between the months of October and March. Virtually all precipitation falls in the form of rain with stormwater infiltrating onsite soils.

LEGEND

 Project Boundary

 Agricultural Field

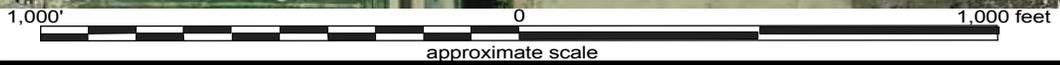
Sources:
Aerial photograph courtesy of Google Earth 4/13/2013



Project Boundary

Jackson Ave

19th Ave



Live Oak Associates, Inc.

Lemoore 14 Solar Project
Biotic Habitats

Date	Project #	Figure #
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Most of the surrounding lands are highly disturbed consisting of similar disced fields to the north and south, a barren disced field to the west, and rural residences to the east with two side by side water ski ponds. A small area of valley sink scrub occurs southeast of the project site and a fallow field occurs southwest of the project site. A canal that was inundated at the time of the LOA field survey runs along the eastern and southern boundaries of the site.

2.3 BIOTIC HABITATS/LAND USES

One habitat/land use type was observed on the project site during the June 2013 biological field survey, characterized as “agricultural field.” A list of the vascular plant species observed within the project site and the terrestrial vertebrates using, or potentially using, the site are provided in Appendices A and B, respectively. Photos of the project site are presented in Appendix C.

2.3.1 Agricultural Field

The site was composed of a large agricultural field that appeared to be disced in the late spring or summer. No evidence of past or present crops were observed on the site at the time of the July 2014 biological field survey. Vegetation in the disced field was somewhat sparse and consisted entirely of weedy herbaceous vegetation such as bractscale (*Atriplex serenana* var. *serenana*), common tarweed (*Centromadia pungens*), white sweetclover (*Melilotus albus*), and Bermuda grass (*Cynodon dactylon*), among others. Due to the disturbed nature of the field and the sparse vegetation, the field provides only marginal habitat for most native wildlife. Nonetheless, some native wildlife species undoubtedly utilize the field. Due to limited aquatic habitat on the site and regular agricultural processes, the agricultural field provide marginal habitat for amphibian and reptile species. While this habitat is not optimal for these species, some may nonetheless occur in this habitat. For example, Pacific chorus frogs (*Pseudacris regilla*) and western toads (*Bufo boreas*) may use the adjacent irrigation canal for breeding and may also disperse through the disced field during the winter and spring. Reptile species that may forage in this habitat include the side-blotched lizard (*Uta stansburiana*), gopher snake (*Pituophis melanoleucus*), and common kingsnake (*Lampropeltis getulus*).

The agricultural field provides foraging habitat for a few avian species. Common resident species likely to forage in the agricultural field include mourning doves (*Zenaida macroura*) (observed)

and American crows (*Corvus brachyrhynchos*), as well as mixed flocks of Brewer's blackbirds (*Euphagus cyanocephalus*), brown-headed cowbirds (*Molothrus ater*), and European starlings (*Sturnus vulgaris*). The western kingbird (*Tyrannus verticalis*) is a common summer migrant to agricultural lands of the region and winter migrants common to the area include white-crowned sparrows (*Zonotrichia leucophrys*), savannah sparrows (*Passerella sandwichensis*), and American pipits (*Anthus rubescens*).

A few mammal species may also occur within the agricultural field of the site. Botta's pocket gopher (*Thomomys bottae*) burrow mounds were observed in the field. A few California ground squirrel (*Otospermophilus beecheyi*) burrows and one individual squirrel were observed during the site survey. Other rodents that may occur in the ag field include the deer mouse (*Peromyscus maniculatus*) and California vole (*Microtus californicus*). Other small mammals that may occasionally occur in this field include the black-tailed hare (*Lepus californicus*) and Audubon cottontail (*Sylvilagus audubonii*). Various species of bat may also forage over the field for flying insects.

The presence of amphibians, reptiles, birds and small mammals is likely to attract foraging raptors and mammalian predators. Raptors such as Swainson's hawk (*Buteo swainsoni*) (observed), red-tailed hawk (*Buteo jamaicensis*) (observed), white-tailed kite (*Elanus leucurus*), and various owls such as barn owl (*Tyto alba*) (feathers observed) and great horned owl (*Bubo virginianus*) (feathers observed) would likely forage over the site. Mammalian predators that may occur on the site would be limited to raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), coyotes (*Canis latrans*) and red foxes (*Vulpes vulpes*), as these species are tolerant of human disturbance.

2.4 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and

animal species native to the state. A sizable number of native plants and animals have been formally designated as “threatened” or “endangered” under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as “species of special concern” by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2014). Collectively, these plants and animals are referred to as “special status species.”

Recorded observations of special status species within a 3.1 mile radius on the project site are illustrated in Figure 4. Documented San Joaquin kit fox and Swainson’s hawk occurrences within 10 miles of the project site are illustrated in Figure 5. Special status species, and their potential to occur on the project site, are listed in Table 1. Sources of information for this table included *California’s Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *California Natural Diversity Data Base* (CDFW 2014), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2011), and *The California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2013). This information was used to evaluate the potential for special status plant and animal species to occur onsite. It is important to note that the California Natural Diversity Data Base (CNDDB) is a volunteer database; therefore, it may not contain all known literature records.

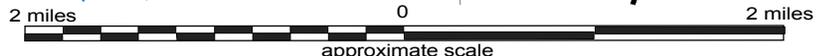
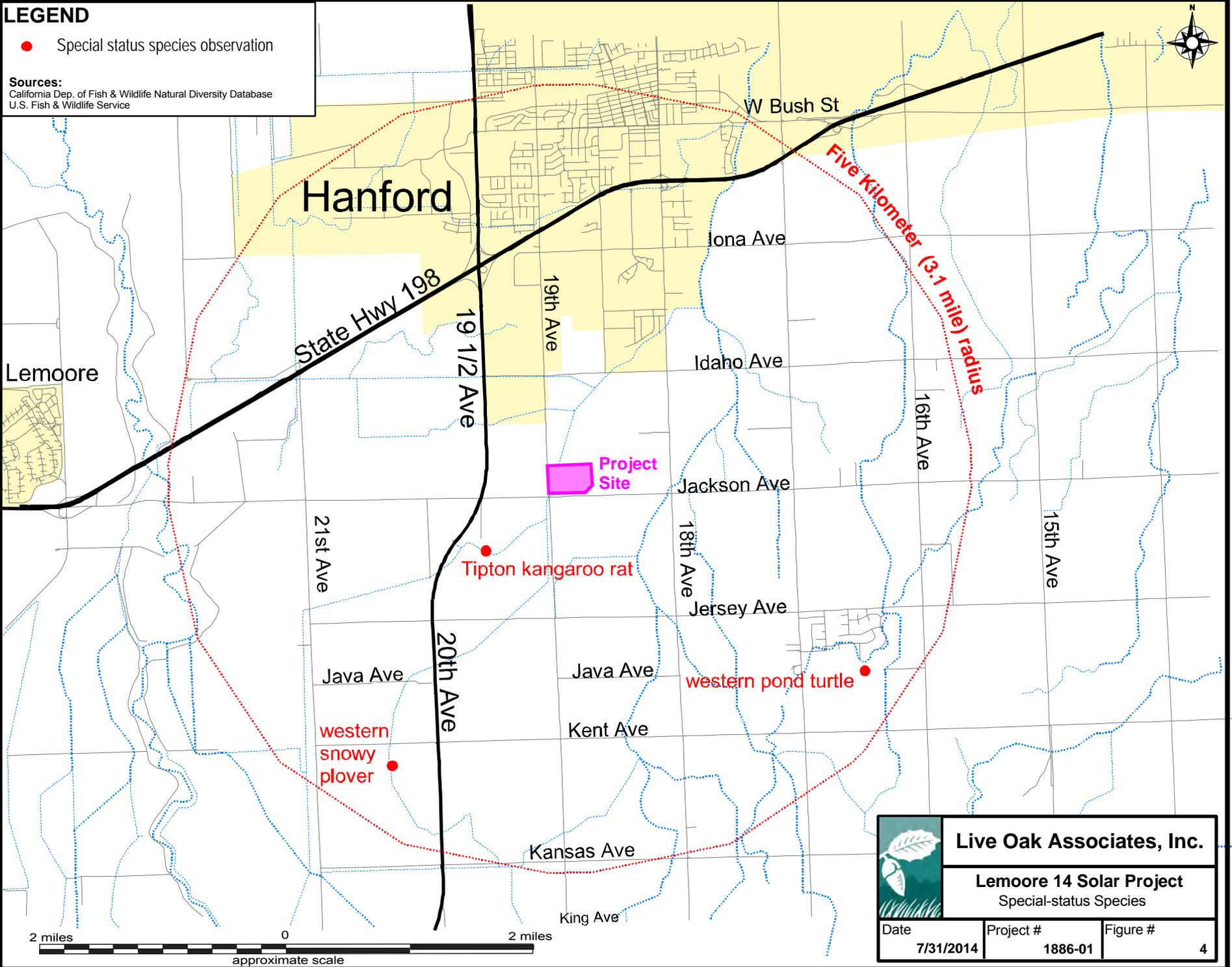
A search of published accounts for all of the relevant special status plant and animal species was conducted for the Lemoore USGS 7.5-minute quadrangle in which the project site occurs, and for the eight surrounding quadrangles (Hanford, Riverdale, Laton, Burrel, Westhaven, Guernsey, Stratford, and Vanguard) using the CNDDB Rarefind 2014.

LEGEND

● Special status species observation

Sources:

California Dep. of Fish & Wildlife Natural Diversity Database
U.S. Fish & Wildlife Service



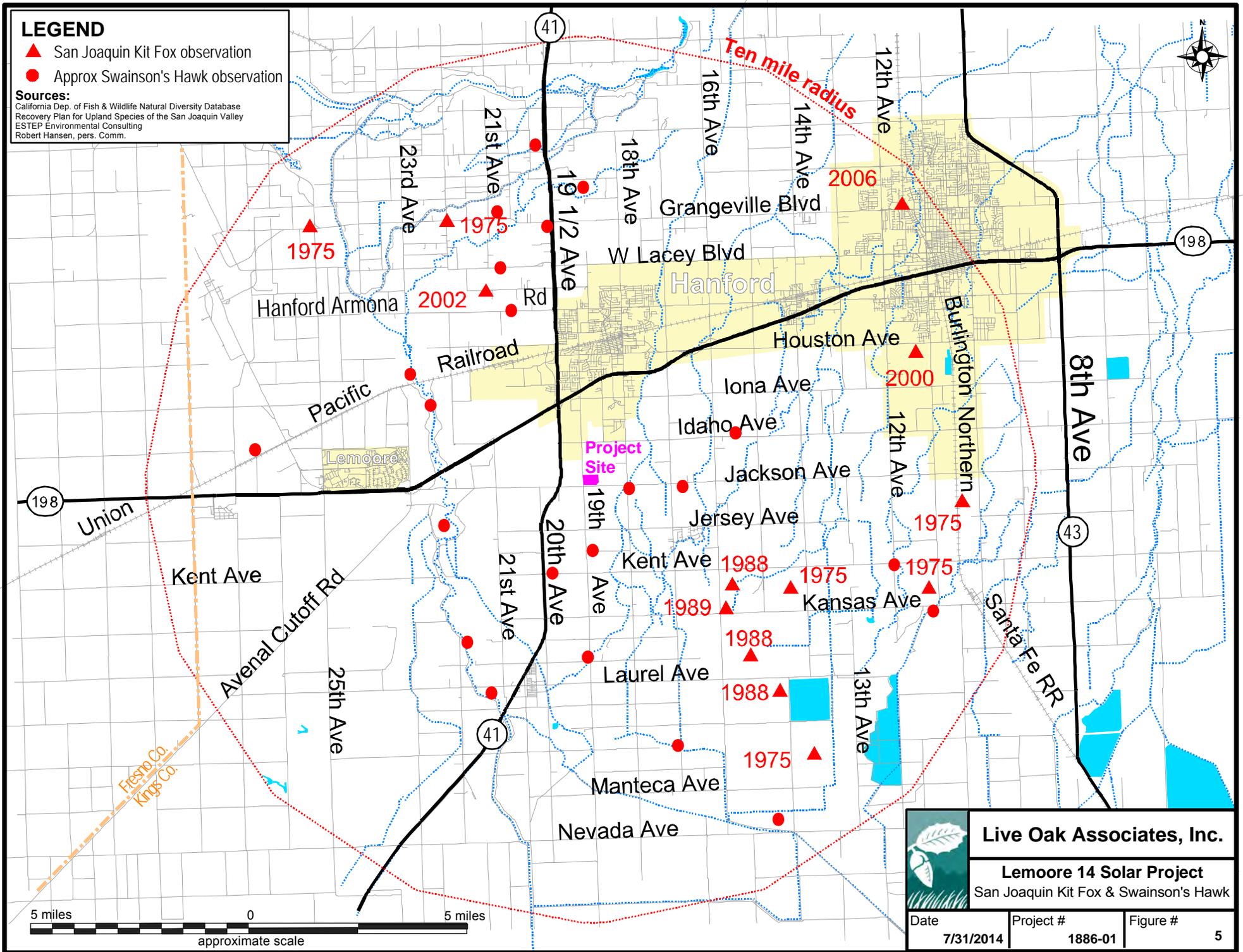
	Live Oak Associates, Inc.		
	Lemoore 14 Solar Project Special-status Species		
Date	Project #	Figure #	
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LEGEND

- ▲ San Joaquin Kit Fox observation
- Approx Swainson's Hawk observation

Sources:

California Dep. of Fish & Wildlife Natural Diversity Database
 Recovery Plan for Upland Species of the San Joaquin Valley
 ESTEP Environmental Consulting
 Robert Hansen, pers. Comm.



Live Oak Associates, Inc.

Lemoore 14 Solar Project
 San Joaquin Kit Fox & Swainson's Hawk

Date	Project #	Figure #
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TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFW 2014 and CNPS 2014)

Special status plants listed by CNPS

Species	Status	Habitat	*Occurrence on the Project Site
Brittlescale (<i>Atriplex depressa</i>)	CNPS 1B.2	Occurs in relatively barren areas with alkaline clay soils in chenopod scrub, playas, valley grasslands, and vernal pools of the Central Valley.	Absent. Historic and current use of the site has rendered it unsuitable for this species.
Recurved Larkspur (<i>Delphinium recurvatum</i>)	CNPS 1B.2	Chenopod scrub, cismontane woodlands, and alkaline soils of valley and foothill grasslands. Blooms March-May.	Absent. Historic and current use of the site has rendered it unsuitable for this species.
Panoche Pepper-grass (<i>Lepidium jeridii ssp. album</i>)	CNPS 1B.2	Occurs in valley and foothill grasslands within white or grey clay lenses on steep slopes incidental in alluvial fans and washes. Prefers clay and gypsum-rich soils. Blooms Feb-June.	Absent. Soils and habitat for this species are absent from the project site.

ANIMALS (adapted from CDFW 2014 and USFWS 2014)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>)	FT	Vernal pools of California's Central Valley.	Absent. Vernal pools required by this species are absent from the project site.
Vernal Pool Tadpole Shrimp (<i>Lepidurus packardii</i>)	FE	Primarily found in vernal pools of California's Central Valley.	Absent. Vernal pool habitat required by this species is absent from the project site.
Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Mature elderberry shrubs of California's Central Valley and Sierra Foothills.	Absent. Elderberry shrubs, the obligate habitat required by this species, are absent from the project site and surrounding lands.
Blunt-Nosed Leopard Lizard (<i>Gambelia silus</i>)	FE, CE, CP	Frequents grasslands, alkali meadows and chenopod scrub of the San Joaquin Valley.	Unlikely. Historic and current use of the site has created conditions unfavorable for this species. The closest documented occurrence is located approximately 5.5 miles southeast of the project site.
Giant garter snake (<i>Thamnophis gigas</i>)	FT, CT	Habitat requirements consist of (1) adequate water during the snake's active season (early-spring through mid-fall) to provide food and cover; (2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat during the active season; (3) grassy banks and openings in waterside vegetation for basking; and (4) higher elevation uplands for cover and refuge from flood waters during the snake's dormant season in the winter.	Absent. The adjacent canal, which is barren of vegetation, provides unsuitable breeding and overwintering habitat. The nearest recorded observation is more than 14 miles to the northwest and is a historic record from a published account in 1948 (CDFW 2014a).

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (adapted from CDFW 2014 and USFWS 2014)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence on the Project Site
Swainson's Hawk (<i>Buteo swainsoni</i>)	CT	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	Present. The onsite agricultural field offers suitable foraging habitat for the Swainson's hawk. Two adult Swainson's hawks were observed flying over the field during LOA's July field survey. The hawks persisted over the site, repeatedly calling, throughout the survey. Nesting habitat is absent from the project site. No Swainson's hawk nests were observed in trees on surrounding lands.
Western Snowy Plover (<i>Charadrius alexandrinus nivosus</i>)	FT, CSC	Uses man-made agricultural wastewater ponds and reservoir margins. Breeds on barren to sparsely vegetated ground at alkaline or saline lakes, reservoirs, ponds, and riverine sand bar.	Absent. Breeding and foraging habitat is absent from the project site.
Fresno kangaroo rat (<i>Dipodomys nitratoides exilis</i>)	FE, CE	Inhabits grassland on gentle slopes generally less than 10°, with friable, sandy-loam soils.	Absent. Historic and current use of the site has rendered it unsuitable for this species.
Tipton Kangaroo Rat (<i>Dipodomys nitratoides nitratoides</i>)	FE, CE	Chenopod scrub and alkali grasslands of the Tulare Basin from Fresno County in the north to Kern County in the south.	Absent. Historic and current use of the site has rendered it unsuitable for this species.
San Joaquin Kit Fox (<i>Vulpes macrotis mutica</i>)	FE, CT	Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged (4 to 10 inches in diameter) ground squirrel burrows as denning habitat.	Unlikely. A walking transect survey of the site in which all open burrows were investigated found no evidence of past or present kit fox occupation of the site. The site has been highly modified for agricultural use and, as a result, provides only marginal foraging and breeding habitat for the kit fox. There have been 13 documented sightings within a ten mile radius of the study site (see Figure 5), between 1975 and 2006 (CDFW 2014). Therefore, kit foxes are unlikely to breed on the site and, at most, may occasionally forage on the site during dispersal movements.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS – cont’d.

State Species of Special Concern

Species	Status	Habitat	*Occurrence on the Project Site
Western Spadefoot (<i>Spea hammondi</i>)	CSC	Primarily occurs in grasslands, but also occurs in valley and foothill hardwood woodlands. Requires vernal pools or other temporary wetlands for breeding.	Absent. Vernal pools required by this species are absent from the project site and surrounding lands.
Western Pond Turtle (<i>Emys marmorata</i>)	CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites of sandy banks or grassy open fields for egg laying.	Unlikely. Irrigation canals adjacent to the site provide only marginal habitat for this species. These artificial waterways are barren of vegetation and, therefore, provide inadequate foraging habitat and cover for western pond turtles. This species has been documented approximately three miles to the southeast of the project site (CDFW 2014a).
White-tailed Kite (<i>Elanus leucurus</i>)	FP	Open grasslands and agricultural areas throughout central California.	Possible. Foraging habitat for this species is present on the site. Nesting habitat is absent from the site.
Burrowing Owl (<i>Athene cunicularia</i>)	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	Unlikely. A walking transect survey of the site in which all open burrows were investigated found no evidence of past or present burrowing owl occupation of the site. The nearest documented occurrence of this species is approximately 6.0 miles to the east (CDFW 2014).
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	Possible. Foraging habitat for this species is present on the site. Nesting habitat is absent from the site.
Tricolored Blackbird (<i>Agelaius tricolor</i>)	CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	Possible. The site provides possible foraging habitat; breeding habitat is absent from the site and surrounding lands.
American Badger (<i>Taxidea taxus</i>)	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	Unlikely. A walking transect survey of the site in which all open burrows were investigated found no evidence of past or present badger occupation of the site.

***Explanation of Occurrence Designations and Status Codes**

Present: Species observed on the sites at time of field surveys or during recent past.

Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.

Possible: Species not observed on the sites, but it could occur there from time to time.

Unlikely: Species not observed on the sites, and would not be expected to occur there except, perhaps, as a transient.

Absent: Species not observed on the sites, and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CR	California Rare
FC	Federal Candidate	CP	California Protected
		CSC	California Species of Special Concern
CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California	3	Plants about which we need more information – a review list
1B	Plants Rare, Threatened, or Endangered in California and elsewhere	4	Plants of limited distribution – a watch list
2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere		

2.5 ENDANGERED, THREATENED, OR SPECIAL STATUS PLANT AND ANIMAL SPECIES MERITING FURTHER DISCUSSION

2.5.1 Swainson's Hawk (*Buteo swainsoni*). Federal Listing Status: None; State Listing Status: Threatened.

The Swainson's hawk is designated as a California Threatened species. The loss of agricultural lands (i.e., foraging habitat) to urban development and additional threats such as riverbank protection projects have contributed to its decline. However, in recent years the Central Valley Swainson's hawk population has been increasing.

Swainson's hawks are large, broad-winged, broad-tailed hawks and have a high degree of mate and territorial fidelity. They arrive at their nesting sites in March or April. In the Central Valley, Swainson's hawks typically nest in large trees in or peripherally to riparian systems adjacent to suitable foraging habitats. The young hatch sometime between March and July and do not leave the nest until some 4 to 6 weeks later. Other suitable nest sites include lone trees, groves of trees such as oaks, other trees in agricultural fields, and mature roadside trees. Central Valley Swainson's hawks forage in large, open fields with abundant prey, including grasslands or lightly grazed pastures, alfalfa and other hay crops, and certain grain and row croplands. Their primary food source during the breeding season is voles; however they also prey on other small mammals, birds, and insects during this time.

Potential to occur onsite. Swainson's hawks are known to forage in areas surrounding the project site; in fact, two agitated adults were observed calling and flying over the site during LOA's July 2014 survey. Nest trees are absent from the project site and an inspection of nearby

trees during the July 2014 field survey found no evidence of an active Swainson's hawk nest. The nearest documented Swainson's hawk nest is located approximately 575 feet to the southwest of the project site in 2011, with a total of 22 nests located within 10 miles of the project site (Figure 5) (Estep 2011, CDFW 2014, Robert Hansen pers. comm.). This nest tree was inspected during LOA's site survey and a small stick nest was observed but no evidence of nesting activity was observed. Given the proximity of a known nest tree and the presence of Swainson's hawks on the site during the field survey, it is likely that Swainson's hawks forage on the site.

2.6 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, wetlands, and in some cases irrigation canals. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the CDFW, and the California Regional Water Quality Control Board (RWQCB). See Section 3.2.4 of this report for additional information.

No drainage, aquatic, or wetland features occur on the project site; therefore, jurisdictional waters are considered absent from the project site.

3.0 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

Approval of general plans, area plans, and specific projects is subject to the provisions of CEQA. The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are carried out. CEQA is concerned with the significance of a proposed project's impacts. For example, a proposed development project may require the removal of some or all of a site's existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on the site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed.

Whenever possible, public agencies are required to avoid or minimize environmental impacts by implementing practical alternatives or mitigation measures. According to Section 15382 of the CEQA Guidelines, a significant 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 interest."

Specific project impacts to biological resources may be considered "significant" if they would:

- 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.
- 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.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- 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.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065(a) states that a project may trigger the requirement to make “mandatory findings of significance” if the project has 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, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.”

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal “endangered species” legislation has provided the CDFW and the USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as “species of special status.” Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the “take” of a listed species. “Take” is defined by the state of California as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” (California Fish and Game Code, Section 86). “Take” is more broadly defined by the federal Endangered Species Act to include “harm” (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most birds. The Federal Migratory Bird Treaty Act (16 U.S.C., sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

3.2.3 Birds of Prey

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is “unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the CDFW.

3.2.4 Wetlands and Other Jurisdictional Waters

Natural drainage channels and adjacent wetlands may be considered “Waters of the United States” (hereafter referred to as “jurisdictional waters”) subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations but has also been subject to interpretation of the federal courts. Jurisdictional waters generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- All interstate waters including interstate wetlands.
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce.
- All impoundments of waters otherwise defined as waters of the United States under the definition.
- Tributaries of waters identified in the bulleted items above.

As determined by the United States Supreme Court in its 2001 *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC) decision, channels and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds. Similarly, in its 2006 consolidated *Carabell/Rapanos* decision, the U.S. Supreme Court ruled that a significant nexus between a wetland and other navigable waters must exist for the wetland itself to be considered a navigable and therefore jurisdictional water.

The USACE regulates the filling or grading of jurisdictional waters under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by “ordinary high water marks” on opposing channel banks. All activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards.

The filling of isolated wetlands, over which the USACE has disclaimed jurisdiction, is regulated by the RWQCB. It is unlawful to fill isolated wetlands without filing a Notice of Intent with the RWQCB. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code (2003). Activities that would disturb these waters are regulated by the CDFW via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in question.

3.3 POTENTIALLY SIGNIFICANT PROJECT IMPACTS/MITIGATION

The project considered in this evaluation of impacts to biological resources is the development of a PV electric generating facility on previously disturbed agricultural land. Project facilities include PV solar panels, inverters, transformers, and perimeter fencing. The following subsections assume that all lands of the project site will be impacted from proposed project development. Potentially significant project impacts to biological resources and mitigations are discussed below.

3.3.1 Disturbance to Migratory Birds That May Nest on or Immediately Adjacent to the Site

Potential Impacts. Although the agricultural field on the site is unlikely to be used by most ground-nesting birds, disturbance-tolerant species such as the killdeer would have the potential to nest on the site. Nearly all native bird species are protected by the federal Migratory Bird Treaty Act. If birds were to nest on or adjacent to the project site prior to construction, ground disturbance or other project-related activities could result in the abandonment of active nests or direct mortality to birds. Such an activity would constitute a violation of state and federal laws (see Section 3.2.2) and would be considered a significant impact under CEQA.

Mitigation. In order to minimize construction disturbance to migratory bird nests, the applicant will implement one or more of the following measure(s) as necessary, prior to project construction:

Mitigation 3.3.1a (Avoidance). In order to avoid impacts to all nesting birds from grading and construction, these activities will occur outside of the typical avian nesting season, or between September 1 and January 31.

Mitigation 3.3.1b (Pre-construction surveys). If grading or construction must occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active migratory bird nests within 15 days of the onset of these activities.

Mitigation 3.3.1c (Establish buffers). Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.

Implementation of the above measures will ensure future development of the project site will have no impact on migratory birds and that the project will be in compliance with state and federal laws protecting nesting birds.

3.3.2 Project Impacts to Swainson's Hawks

Potential Impacts. Two documented Swainson's hawk nests occur within 1 mile of the project site and 22 documented nests occur within 10 miles of the project site (Estep 2011, CDFW 2014, Robert Hansen pers. comm.) (see Figure 5). A pair of adult Swainson's hawks was observed over the project site during the July 2014 LOA field survey. Trees are absent from the project area. The nearest trees to the site are some medium sized saltcedar trees (*Tamarix sp.*) that were growing in a row along the boundary of the adjacent property to the east. These trees contained no stick nests and supported relatively thin, flimsy branches that appeared incapable of supporting a Swainson's hawk nest. Because Swainson's hawk nesting habitat is absent from the project area, the project will have no impact on nesting habitat. However, the project will result in the loss of approximately 53 acres of moderate quality foraging habitat and potentially cause indirect effects to nesting Swainson's hawks as a result of project construction activities. Conversion of the onsite agricultural field to solar development will result in the loss of a small amount of Swainson's hawk foraging habitat. This foraging habitat is considered of moderate quality due to regular discing, lack of irrigation, sparse vegetation, and limited small mammal activity found on the site. Impacts to Swainson's hawk foraging habitat have been analyzed using data and methodologies collected and developed by Swainson's hawk researcher Jim Estep for the RE Kansas South LLC Solar Generation Facility (Estep 2011). The Kansas South project site lies approximately 3.0 miles southwest of the Lemoore 14 project site.

Estep conducted a systematic Swainson's hawk nesting survey and habitat analysis across a 10 mile radius from the Kansas South solar site. He noted the location, habitat characteristics, and ultimate success of active nests. In addition, all habitats within the radius were categorized and ranked according to suitability for foraging Swainson's hawks. With this data he calculated the average foraging acres for all Swainson's hawks encountered and the acres of available foraging habitat within the radius, based on previous research he conducted in 1989 (Estep 1989) in which nesting Swainson's hawk pairs utilized an average of 6,820 acres of foraging habitat per pair.

This average foraging acreage was reduced by 30 percent in the Estep 2011 study to account for overlap of foraging ranges of different nesting pairs within the population. Available foraging acreage was compared with the average foraging acreage of the Swainson's hawks within the radius. Available foraging acres within the radius in excess of the required foraging acres of the Swainson's hawk population within the radius were considered surplus foraging acres. The acres lost to project development were calculated as a percent loss of these surplus acres. If the percent loss of surplus acres exceeded 30 percent, impacts were considered significant. The same calculation was performed for all known solar projects within the radius to determine cumulative loss of foraging habitat.

Given the close proximity of the Kansas South Estep study area to the Lemoore 14 project site, approximately 81 percent of the Kansas South Estep study area is included within a 10 mile radius around the Lemoore 14 project site. Therefore, the Estep study is an effective model for the Lemoore 14 Swainson's hawk analysis. It must be noted however, that the Lemoore 14 analysis area includes approximately 60 square miles that are outside and northeast of the Estep 2011 study area; these 60 square miles fall largely within the sphere of influence of the City of Hanford. This area consists of a mix of rural residential, agricultural, and developed land that is generally low quality Swainson's hawk foraging habitat. Therefore, this analysis has taken a very conservative approach and removed these 60 square miles or 38,400 acres from the 187,000 acres of available foraging habitat calculated by Estep within the 10 mile radius of the Kansas South Solar Project for a total of 148,600 acres of available foraging habitat within a 10 mile radius of the Lemoore 14 project site. While foraging habitat is more limited in these 60 square miles due to the presence of the City of Hanford, potential nesting habitat is abundant in this area due to the increase in tree density. This area of Hanford within a 10 mile radius of the Lemoore 14 solar project also contains another solar project that was not included in Estep's cumulative analysis for the Kansas South solar project. This solar project is the ImMODO Hanford 12 solar project that converted an 18-acre industrial yard into a PV solar facility. The CEQA analysis of this project found the area to contain extremely marginal to unsuitable foraging habitat. Therefore, this small solar project has been omitted from the Lemoore 14 Swainson's hawk foraging habitat cumulative impact analysis.

Impacts to Foraging Habitat: The Lemoore 14 project would remove approximately 53 acres of moderate quality Swainson’s hawk foraging habitat. Table 3 shows the area of suitable agricultural foraging habitat adapted from Estep 2011 within a 10 mile radius of the project site, the amount of agricultural foraging habitat required to support 22 nesting pairs of Swainson’s hawks (from Estep 1989), the area that exceeds the estimated required foraging habitat, the area removed by the project, and the area and percent of available habitat remaining after implementation of the project.

Table 3. Total Acres of Available, Required, and Impacted Agricultural Foraging Habitat Within the Lemoore 14 Study Area

Area	Acreage	Percent of Swainson’s Hawk Habitat
Available Swainson’s Hawk Foraging Habitat (A)*	~148,600	
Foraging Habitat Required for 22 Swainson’s Hawk Pairs** (B)	105,028	
Difference (A – B, representing surplus available acres)	43,572	
Project Acreage	53	
Remaining Available Habitat Minus Project Area	148,547	
Remaining Surplus Habitat Available Minus Project Area	43,519	99.88

* Adapted from (Estep 2011):

** Adjusted for 30 percent foraging overlap (acres).

Because the amount of available Swainson’s hawk foraging habitat (A) is greater than the foraging habitat that would be required by the 22 nesting pairs documented within 10 miles of the site (B), a greater amount of foraging habitat in the regional study area is available than is required by the Swainson’s hawks identified in the study area. The surplus of 43,572 acres of additional available foraging habitat would only be reduced by 0.12 percent after project build-out, leaving 99.88 percent of regionally available surplus foraging habitat intact. This would be sufficient to support a dynamic agricultural landscape and provide for expansion of the existing Swainson’s hawk population in the region. Because the project will result in no reduction of required foraging habitat and only a tiny fraction of surplus foraging habitat, the amount of land that would be removed from available habitat as a result of project construction would not affect the distribution and abundance of the regional population, or prevent the future expansion of the population. Therefore, any impact the project would have on the availability of foraging habitat for Swainson’s hawk would be less than significant, and no mitigation is required.

Similarly, cumulative losses of Swainson’s hawk foraging habitat from the Lemoore 14 project would also be less than significant, as determined through the following analysis. Cumulative impacts from known proposed solar generation facilities were identified within the 10-mile radius of the Kansas South solar facility (Estep 2011), totaling 4,723 acres of potentially lost Swainson’s hawk foraging habitat. The cumulative analysis is presented in Table 4.

Table 4. Total Acres of Available, Required, and Cumulatively Impacted Agricultural Foraging Habitat Within the Lemoore 14 Study Area

Area	Acreage	Percent of Swainson’s Hawk Habitat
Available Swainson’s Hawk Foraging Habitat (A)*	~148,600	
Foraging Habitat Required for 22 Swainson’s Hawk Pairs** (B)	105,028	
Difference (A – B, representing surplus available acres)	43,572	
Cumulative Project Acreage	4,723	
Remaining Available Habitat Minus Cumulative Losses	143,877	96.8
Remaining Surplus Habitat Available Minus Cumulative Losses	38,849	89.2

* Adapted from (Estep 2011):

** Adjusted for 30 percent foraging overlap (acres).

The additional foraging habitat that would be removed by the development of cumulative projects, including the proposed Lemoore 14 project, would result in 38,849 acres of surplus foraging acres intact. This represents a 10.8 percent reduction of surplus foraging habitat. Estep set a threshold of a 30 percent reduction of surplus foraging habitat needed to consider a project’s impact or cumulative impact as significant under CEQA. With the judicious removal of the 38,400 acres of available foraging from Estep’s calculated total for the 10 mile radius around the Kansas South Solar Project, the percentage of cumulative loss of regional foraging habitat is still far from the 30 percent threshold. Therefore, the impact of these projects on foraging habitat for Swainson’s hawks would not result in a significant cumulative impact, and the project’s 53 acre contribution to cumulative impacts would, likewise, be less than significant.

Impacts to Nesting Swainson’s Hawks: Given the close proximity of a documented Swainson’s hawk nest tree, the project has the potential to disrupt the nesting patterns of Swainson’s hawks, should construction occur during the nesting period (April 1st – August 31st). Disturbance to nesting Swainson’s hawks could result in nest abandonment or nest failure, which would be a

violation of state and federal law. The following mitigations will reduce or illuminate impacts to nesting Swainson's hawks.

Mitigation. Prior to the construction of the project one or more of the following measures will be implemented.

Mitigation 3.3.2a (avoidance). In order to avoid impacts to Swainson's hawk all onsite project activities will commence after the nesting season has concluded (August 31st). Major construction (i.e. PV panel installation, perimeter fencing, trenching, excavating, or any activity that would require the use of heavy equipment) will occur before the start of the nesting season (April 1st).

Mitigation 3.3.2b (Pre-construction Surveys). If construction must be initiated during the nesting season, prior to any construction related activity, preconstruction surveys will be conducted on the project site and adjacent lands within 0.5 mile of the site to identify any nesting pairs of Swainson's hawks that may be present. These surveys will conform to the requirements of CDFW as presented in *Recommended Timing And Methodology For Swainson's Hawk Nesting Surveys In California's Central Valley*, Swainson's Hawk Technical Advisory Committee, May 31, 2000 (see Appendix D). If no nesting pairs are found on or within the vicinity of the project site, no further mitigation is required.

Mitigation 3.3.2c (establish buffers). Should any active nests be discovered in or near proposed construction zones, the biologist will consult with CDFW to identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.

Implementation of these measures would reduce impacts to Swainson's hawks to a less than significant level.

3.3.3 Project Impacts to Burrowing Owls from Construction Mortality

Potential Impacts. Evidence of past or present burrowing owl occupation of the project site was not observed during the transect survey conducted by LOA in July of 2014. However, suitable nesting habitat in the form of ground squirrel burrows is present. If burrowing owls were to move onto the site prior to project construction, ground disturbance from construction related activities could result in the mortality of burrowing owls, as they are known to retreat into their burrows ahead of approaching grading activity. These small raptors are protected under the federal Migratory Bird Treaty Act and Fish and Game Code. Mortality of individual birds would

be a violation of state and federal law. Mortality of individual burrowing owls would constitute a potentially significant adverse environmental impact.

Mitigation. Prior to project construction one or more of the following measures will be implemented as necessary, which will reduce impacts to the burrowing owl to a less than significant level:

Mitigation Measure 3.3.3a (Take Avoidance Surveys). A take avoidance survey will be conducted by a qualified biologist for burrowing owls within 30 days of the onset of construction. This take avoidance survey will be conducted according to methods described in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). All suitable habitats of the site will be covered during this survey.

Mitigation Measure 3.3.3b (Avoidance of Active Nests). If take avoidance surveys are undertaken during the breeding season (February through August) and active nest burrows are located within or near construction zones, a construction-free buffer of 250 feet should be established around all active owl nests. The buffer areas should be enclosed with temporary fencing, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.

Mitigation Measure 3.3.3c (Passive Relocation of Resident Owls). During the non-breeding season (September through January), resident owls occupying burrows in areas proposed for development may be relocated to alternative habitat. The relocation of resident owls must be conducted according to a relocation plan prepared by a qualified biologist. Passive relocation will be the preferred method of relocation.

Compliance with the above mitigation measures will reduce impacts to burrowing owls to a less than significant level.

3.3.4 Project Impacts to San Joaquin Kit Foxes from Construction Mortality

Potential Impacts. The project site consists of lands that have experienced regular human disturbance for decades. Onsite habitat for this species is considered marginal, at best. Some ground squirrel burrows were observed on the site during LOA's July 2014 transect survey. During this survey no burrows of suitable size for kit fox use were observed and no sign of kit fox use was observed. While it is unlikely kit fox have or would take up residence on the project site under current site conditions, kit fox populations reported from the surrounding areas may pass through and possibly forage on the site from time to time during regular dispersal

movements. If kit fox were present at the time of construction, then construction related activities have the potential to cause kit fox mortality. Kit fox mortality as a result of the project is a potentially significant impact.

Mitigation. Prior to project construction the following measures will be implemented. The project should also implement protection measures as outlined in the “U.S. Fish and Wildlife Service standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance,” provided in Appendix E.

Mitigation Measure 3.3.4a (pre-construction surveys). Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any project activity likely to impact the San Joaquin kit fox. These surveys will be conducted in accordance with the USFWS Standard Recommendations. The primary objective is to identify kit fox habitat features (e.g., potential dens and refugia) on the project site and evaluate their use by kit foxes. If an active kit fox den is detected within or immediately adjacent to the area of work, the USFWS shall be contacted immediately to determine the best course of action.

Mitigation Measure 3.3.4b (Avoidance). Should kit fox be found using the site during preconstruction surveys the project will avoid the habitat occupied by kit fox and the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified.

Mitigation Measure 3.3.4c (Minimization). Permanent and temporary construction activities and other types of project-related activities should be carried out in a manner that minimizes disturbance to kit foxes. Minimization measures include, but are not limited to: restriction of project-related vehicle traffic to established roads, construction areas, and other designated areas; inspection and covering of structures (e.g., pipes), as well as installation of escape structures, to prevent the inadvertent entrapment of kit foxes; restriction of rodenticide and herbicide use; and proper disposal of food items and trash. See appendix E for more details.

Mitigation Measure 3.3.4d (Employee Education Program).

Prior to the start of construction the applicant will retain a qualified biologist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the San Joaquin kit fox. This training will include a description of the kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the endangered species act; and a list of the measures being taken to reduce impacts to the species during project construction and implementation.

Mitigation Measure 3.3.4e (Mortality Reporting). The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified in writing within three working days in case of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.

Implementation of these measures will reduce impacts to the San Joaquin kit fox to a less than significant level and would minimize the risk that construction activities during project development would result in mortality to individual kit foxes.

3.4 LESS THAN SIGNIFICANT PROJECT IMPACTS

3.4.1 Loss of Habitat for Special Status Plants

Potential Impacts. Three special status vascular plant species are known to occur in the vicinity of the project site (see Table 1). These plant species are absent from the site due to current and past land use practices. Therefore, the proposed project would have no impact on regional populations of these special status plant species.

Mitigation. Mitigation measures are not warranted.

3.4.2 Loss of Habitat or Direct Impact to Special Status Animals Absent or Unlikely to Occur on the Site

Potential Impacts. Of the 17 special status animal species potentially occurring in the region, 13 species would be absent or unlikely to occur on the site due to the absence of suitable habitat. These species include the vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, blunt-nosed leopard lizard, giant garter snake, western snowy plover, Tipton kangaroo rat, Fresno kangaroo rat, San Joaquin kit fox, western spadefoot, western pond turtle, burrowing owl, and American badger. Since there is little to no likelihood that these species would use the site, disturbance from future development of the project site would have no effect on these species.

Mitigation. No loss of habitat or direct impact to these special status animals would occur; therefore, no mitigations are warranted.

3.4.3 Loss of Habitat for Special Status Animals that may Occur on the Site as Occasional or Regular Foragers but Breed Elsewhere

Four species may utilize the site for foraging only. These species include the Swainson's hawk, white-tailed kite, loggerhead shrike, and tricolored blackbird. Similar to more suitable foraging habitat is abundant throughout the region. Because the site is to retain earthen ground cover following project implementation, foraging habitat for loggerhead shrikes and tricolored blackbirds will likely be available after project build out. Therefore, the project would not significantly reduce the amount or quality of foraging habitat currently available in the region. A detailed analysis of impacts to Swainson's hawk foraging habitat is presented in Section 3.3.2.

Mitigation. The loss of foraging habitat for special status animals is considered a less than significant impact. Therefore, no mitigations are warranted.

3.4.4 Project Impacts to Fish or Wildlife Movement Corridors

Potential Impacts. The project site does not serve as a fish or wildlife movement corridor. The only feature that could facilitate easy movement of native wildlife species is the adjacent canal. Both the canal and the access roads on either side will be outside project development areas and will remain unchanged.

Mitigation. Because this project will result in no effect on regional fish or wildlife movements, mitigation measures are not warranted.

3.4.5 Disturbance to Riparian Habitat or other Sensitive Habitats

Potential Impacts. No riparian or sensitive habitats occur on the project site.

Mitigation. Mitigations are not warranted.

3.4.6 Disturbance to Waters of the United States

Potential Impacts. Drainages, aquatic, and wetland areas are absent from the project site.

Mitigation. No mitigation is required.

3.4.7 Local Policies or Habitat Conservation Plans

Potential Impacts. It appears that all future development within the project area would be in compliance with the provisions of Kings County General Plan polices related to biological resources. No known Habitat Conservation Plans are in effect for the area.

Mitigation. No mitigations are warranted.

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APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE

APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE

The plants species listed below were observed on the proposed Lemoore 14 Solar Facility site during surveys conducted by Live Oak Associates, Inc. on July 22, 2014. The U.S. Fish and Wildlife Service wetland indicator status of each plant has been shown following its common name.

OBL - Obligate
 FACW - Facultative Wetland
 FAC - Facultative
 FACU - Facultative Upland
 UPL - Upland
 +/- - Higher/lower end of category
 NR - No review
 NA - No agreement
 NI - No investigation

ASTERACEAE – Sunflower Family		
<i>Centromadia pungens</i>	Common Tarweed	FAC
<i>Helianthus annuus</i>	Annual Sunflower	FACU
BORAGINACEAE - Borage Family		
<i>Amsinckia sp.</i>	Fiddleneck	UPL
BRASICACEAE – Mustard Family		
<i>Heliotropium curassavicum</i>	Salt Heliotrope	FACU
CHENOPODIACEAE – Goosefoot Family		
<i>Atriplex serenana var. serenana</i>	Bractscale	FAC
FABACEAE – Pea Family		
<i>Melilotus albus</i>	White Sweetclover	UPL
POACEAE – Grass Family		
<i>Avena sp.</i>	Oat	UPL
<i>Cynodon dactylon</i>	Bermuda Grass	FAC
<i>Distichlis spicata</i>	Saltgrass	FAC
<i>Hordeum murinum ssp. leporinum</i>	Barnyard Barley	FACU
POLYGONACEAE – Buckwheat Family		
<i>Rumex crispus</i>	Curly dock	FAC
ZYGOPHYLLACEAE – Caltrop Family		
<i>Tribulus terrestris</i>	Puncture vine	UPL

**APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY
OCCUR ON THE PROJECT SITE**

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE

The species listed below are those that may reasonably be expected to use the habitats of the project site routinely or from time to time. The list was not intended to include birds that are vagrants or occasional transients. Terrestrial vertebrate species observed in or adjacent to the proposed Lemoore 14 Solar Facility site during surveys conducted by Live Oak Associates, Inc. on July 22, 2014 have been noted with an asterisk.

CLASS: REPTILIA (Reptiles)

ORDER: SQUAMATA (Lizards and Snakes)

SUBORDER: SAURIA (Lizards)

FAMILY: PHRYNOSOMATIDAE

Side-blotched Lizard (*Uta stansburiana*)

SUBORDER: SERPENTES (Snakes)

FAMILY: COLUBRIDAE (Colubrids)

Gopher Snake (*Pituophis melanoleucus*)

Common Kingsnake (*Lampropeltis getulus*)

FAMILY: VIPERIDAE (Vipers)

Western Rattlesnake (*Crotalus viridis*)

CLASS: AVES (Birds)

ORDER: CICONIIFORMES (Hérons, Storks, Ibises and Relatives)

FAMILY: CATHARTIDAE (American Vultures)

*Turkey Vulture (*Cathartes aura*)

ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)

FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)

White-tailed Kite (*Elanus leucurus*)

Northern Harrier (*Circus cyaneus*)

*Swainson's Hawk (*Buteo swainsoni*)

*Red-tailed Hawk (*Buteo jamaicensis*)

FAMILY: FALCONIDAE (Caracaras and Falcons)

American Kestrel (*Falco sparverius*)

Merlin (*Falco columbarius*)

ORDER: CHARADRIIFORMES (Shorebirds, Gulls, and relatives)

FAMILY: CHARADRIIDAE (Plovers and relatives)

*Killdeer (*Charadrius vociferus*)

ORDER: COLUMBIFORMES (Pigeons and Doves)

FAMILY: COLUMBIDAE (Pigeons and Doves)

Rock Pigeon (*Columba livia*)

Eurasian Collared Dove (*Streptopelia decaocto*)

*Mourning Dove (*Zenaida macroura*)

ORDER: STRIGIFORMES (Owls)

FAMILY: TYTONIDAE (Barn Owls)

*Common Barn Owl (*Tyto alba*)

FAMILY: STRIGIDAE (Typical Owls)

*Great Horned Owl (*Bubo virginianus*)

ORDER: APODIFORMES (Swifts and Hummingbirds)

FAMILY: TROCHILIDAE (Hummingbirds)

Anna's Hummingbird (*Calypte anna*)

Rufous Hummingbird (*Selasphorus rufus*)

ORDER: PASSERIFORMES (Perching Birds)

FAMILY: TYRANNIDAE (Tyrant Flycatchers)

Black Phoebe (*Sayornis nigricans*)

Say's Phoebe (*Sayornis saya*)

Western Kingbird (*Tyrannus verticalis*)

FAMILY: LANIIDAE (Shrikes)

Loggerhead Shrike (*Lanius ludovicianus*)

FAMILY: CORVIDAE (Jays, Magpies, and Crows)

Western Scrub Jay (*Aphelocoma coerulescens*)

American Crow (*Corvus brachyrhynchos*)

Common Raven (*Corvus corax*)

FAMILY: ALAUDIDAE (Larks)

Horned Lark (*Eremophila alpestris*)

FAMILY: HIRUNDINIDAE (Swallows)

Cliff Swallow (*Hirundo pyrrhonota*)

Barn Swallow (*Hirundo rustica*)

FAMILY: TURDIDAE

American Robin (*Turdus migratorius*)

FAMILY: MIMIDAE (Mockingbirds and Thrashers)

Northern Mockingbird (*Mimus polyglottos*)

FAMILY: STURNIDAE (Starlings)

European Starling (*Sturnus vulgaris*)

FAMILY: MOTACILLIDAE (Wagtails and Pipits)

American Pipit (*Anthus rubescens*)

FAMILY: PARULIDAE (Wood Warblers and Relatives)

Yellow-rumped Warbler (*Dendroica coronata*)

FAMILY: EMBERIZIDAE (Sparrows and Relatives)

Savannah Sparrow (*Passerculus sandwichensis*)

White-crowned Sparrow (*Zonotrichia leucophrys*)

FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)

Red-winged Blackbird (*Agelaius phoeniceus*)

Tricolored Black Bird (*Agelaius tricolor*)

Western Meadowlark (*Sturnella neglecta*)

Brewer's Blackbird (*Euphagus cyanocephalus*)

Brown-headed Cowbird (*Molothrus ater*)

FAMILY: PASSERIDAE (Old World Sparrows)

House Finch (*Carpodacus mexicanus*)

House Sparrow (*Passer domesticus*)

CLASS: MAMMALIA (Mammals)
ORDER: DIDELPHIMORPHIA (Marsupials)
FAMILY: DIDELPHIDAE (Opossums)
 Virginia Opossum (*Didelphis virginiana*)
ORDER: CHIROPTERA (Bats)
FAMILY: PHYLLOSTOMIDAE (Leaf-nosed Bats)
 Southern Long-nosed Bat (*Leptonycteris curasoae*)
FAMILY: VESPERTILIONIDAE (Evening Bats)
 Yuma Myotis (*Myotis yumanensis*)
 California Myotis (*Myotis californicus*)
 Western Pipistrelle (*Pipistrellus hesperus*)
 Big Brown Bat (*Eptesicus fuscus*)
 Hoary Bat (*Lasiurus cinereus*)
ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)
FAMILY: LEPORIDAE (Rabbits and Hares)
 Audubon cottontail rabbit (*Sylvilagus audubonii*)
 Black-tailed (Hare) Jackrabbit (*Lepus californicus*)
ORDER: RODENTIA (Rodents)
FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)
 *California Ground Squirrel (*Otospermophilus beecheyi*)
FAMILY: GEOMYIDAE (Pocket Gophers)
 *Botta's Pocket Gopher (*Thomomys bottae*)
FAMILY: MURIDAE (Old World Rats and Mice)
 Western Harvest Mouse (*Reithrodontomys megalotis*)
 Deer Mouse (*Peromyscus maniculatus*)
 California Vole (*Microtus californicus*)
ORDER: CARNIVORA (Carnivores)
FAMILY: CANIDAE (Foxes, Wolves, and relatives)
 Coyote (*Canis latrans*)
 Feral Dog (*Canis lupus familiaris*)
 Red Fox (*Vulpes vulpes*)
FAMILY: PROCYONIDAE (Raccoons and relatives)
 Raccoon (*Procyon lotor*)
FAMILY: MEPHITIDAE (Skunks)
 Striped Skunk (*Mephitis mephitis*)
FAMILY: FELIDAE (Cats)
 Feral Cat (*Felis domesticus*)

APPENDIX C: SELECTED SITE PHOTOGRAPHS



Photo 1: Disced agricultural field comprising the project site.



Photo 2: Gopher mounds visible in foreground.



Photo 3: Ground squirrel burrows at the edge of the project site.



Photo 4: Adjacent canal.

**BEFORE THE KINGS COUNTY PLANNING COMMISSION
COUNTY OF KINGS, STATE OF CALIFORNIA**

IN THE MATTER OF CONDITIONAL USE) RESOLUTION NO. 14-11
PERMIT NO. 14-03 (ImMODO Solar Lemoore))
_____) RE: 14805 19th Avenue, Lemoore

WHEREAS, on July 18, 2014, ImMODO California 1 LLC filed Conditional Use Permit No. 14-03; to develop, own, and operate an 8 megawatt (MW) photovoltaic (PV) solar generation farm (SGF) and associated infrastructure on an 60.39 acre parcel located at 14805 19th Avenue, Lemoore; and

WHEREAS, the application was determined to be complete on July 18, 2014; and

WHEREAS, a Notice of Intent to Adopt a Mitigated Negative Declaration was published on September 12, 2014, providing notice that the Initial Study/Mitigated Negative Declaration (IS/MND) had been completed for the proposed Project and was available for public review and comment; and

WHEREAS, the IS/MND was circulated for public review and comment on September 12, 2014; and

WHEREAS, the Kings County Community Development Agency distributed copies of the IS/MND to those public agencies that have jurisdiction by law with respect to the Project, as well as to other interested persons and agencies, and sought the comments of such persons and agencies; and

WHEREAS, on October 14, 2014, the public review period for the proposed IS/MND for this project closed; and

WHEREAS, during the public review period for the proposed IS/MND five sets of comments were received before the end of the public review period from the Building Division of the Kings County Community Development Agency, the Kings County Fire Department, the Kings County Environmental Health Department, the Kings County Public Works Department and the Santa Rosa Rancheria Tachi Yokut Tribe; and

WHEREAS, these comments did not result in any changes to the IS/MND, none of the comments identified a new, unavoidable significant effect, nor did they result in a finding that the proposed mitigation measures in the IS/MND will not reduce potential effects to less than significant; and

WHEREAS, pursuant to CEQA Guidelines § 15073.5, recirculation of the IS/MND is not required; and

WHEREAS, on October 24, 2014, the Kings County Community Development Agency recommended that the Mitigated Negative Declaration be approved for the proposal; and

WHEREAS, on October 24, 2014, the Kings County Community Development Agency staff notified the applicant of the proposed recommendation on this project; and

WHEREAS, on November 3, 2014, the Planning Commission held a duly noticed public hearing for CUP Number 14-03 in the Board of Supervisors Chambers of the Kings County Government Center, 1400 W. Lacey Blvd., Hanford, California; and

WHEREAS, at the November 3, 2014, public hearing the Planning Commission received 1) a report presented by County staff that included the staff recommendation, 2) testimony from the applicant, and 3) testimony from members of the general public; and

WHEREAS, the Planning Commission received testimony prior to the close of the public hearing; and

WHEREAS, on November 3, 2014, after the conclusion of public testimony the Planning Commission closed the public hearing and deliberated; and

WHEREAS, in order to approve CUP Number 14-03 the Planning Commission is required to make the following findings and certifications with regards to the California Environmental Quality Act: (1) The Planning Commission has reviewed and considered the IS/MND, together with the comments received during the public review and comment period, before approving the project; (2) Based on the whole record before it, including the IS/MND and the comments received during the public review period, there is no substantial evidence in the record that the proposed Project will have a significant effect on the environment; (3) The IS/MND for this Project has been completed in compliance with CEQA and is adequate; and (4) The IS/MND reflects the Planning Commission's independent judgment and analysis; and

WHEREAS, the Planning Commission has reviewed the IS/MND in its entirety, and has determined that the document reflects the independent judgment of the County; and

WHEREAS, the IS/MND identified certain significant effects on the environment that, absent the adoption of mitigation measures, would be caused by the construction and operation of the Project; and

WHEREAS, the Planning Commission is required, pursuant to CEQA, to adopt all feasible mitigation measures or feasible project alternatives that can substantially lessen or avoid any significant project-related environmental effects; and

WHEREAS, the Planning Commission is required by Public Resources Code Section 21081.6, subdivision (a), to adopt a Mitigation Monitoring and Reporting Plan to ensure that the mitigation measures adopted by the County are actually carried out; and

WHEREAS, as demonstrated by the Mitigation Monitoring and Reporting Plan, attached as Exhibit "A" to this Resolution, all of the Project's significant environmental effects can be either substantially lessened or avoided through the adoption of feasible mitigation measures; and

WHEREAS, the Planning Commission determines it appropriate to certify and adopt the Mitigated Negative Declaration, to adopt the Mitigation Monitoring and Reporting Plan, and to approve CUP Number 14-03.

NOW, THEREFORE, BE IT RESOLVED AND CERTIFIED, by the Kings County Planning Commission that:

I. SECTION 1: Recitals

1. The above recitals are true and correct, and the Planning Commission hereby so finds.

II. SECTION 2: Findings Related to Proceedings

1. The Notice of Intent to Adopt a Mitigated Negative Declaration for the Project was duly prepared, noticed and properly circulated in accordance with the provisions of CEQA.
2. An Initial Study/Mitigated Negative Declaration has been conducted for the proposed Project by the Lead Agency to evaluate the potential for any adverse environmental impact in compliance with the California Environmental Quality Act of 1970 (California Public Resources Code Section 21000 et seq.), as amended, and the State Guidelines thereto (California Code of Regulations Section 15000 et seq.).
3. The Initial Study/Mitigated Negative Declaration was duly prepared, properly circulated and completed in accordance with CEQA.

4. After providing adequate public notice, the Initial Study/Mitigated Negative Declaration was duly circulated in accordance with the provisions of CEQA, and a public hearing was properly noticed and was conducted by the Planning Commission in compliance with CEQA.
5. All comments received during and after the period of public review have been duly considered and incorporated into the Initial Study/Mitigated Negative Declaration, and when necessary, replied to in accordance with the provisions of CEQA.
6. The comments did not result in any changes to the Initial Study/Mitigated Negative Declaration, none of the comments identified a new, unavoidable significant effect, nor did they result in a finding that the proposed mitigation measures in the Initial Study/Mitigated Negative Declaration will not reduce potential effects to less than significant.
7. Pursuant to CEQA Guidelines § 15073.5, recirculation of the Initial Study/Mitigated Negative Declaration is not required.
8. The Initial Study/Mitigated Negative Declaration was presented to this Commission, and it was independently reviewed and considered, together with the comments received during the public review period, by this Commission prior to acting on the proposed Project.
9. The Kings County Community Development Agency provided written responses to all comments received on the Initial Study/Mitigated Negative Declaration before certification of the Initial Study/Mitigated Negative Declaration pursuant to the provisions of CEQA.
10. The Mitigated Negative Declaration for the Project has been properly completed and has identified all significant environmental effects of the Project, and there are no known potential environmental effects that are not addressed in the Mitigated Negative Declaration.
11. The Project has been modified with mitigation measures to eliminate significant impacts or to reduce such impacts to a level of insignificance in all instances.
12. The proposed Project may have significant adverse impacts on the environment; however, those impacts can be mitigated to an insignificant level by implementing the Mitigation Monitoring and Reporting Program attached to this resolution as Exhibit "A." Based on the whole record, including the Initial Study/Mitigated Negative Declaration and the comments received during the public review period, there is no substantial evidence that the proposed Project will have a significant effect on the environment. The Initial Study/Mitigated Negative Declaration reflects the Planning Commission's independent judgment and analysis.
13. The Planning Commission has used its own independent judgment in adopting this Resolution, in approving the Project, in adopting and certifying the Initial Study/Mitigated Negative Declaration, and in adopting the Mitigation Monitoring and Reporting Plan.

III. SECTION 3: Certification of the Initial Study/Mitigated Negative Declaration and Adoption of the Mitigation Monitoring and Reporting Plan

1. It is hereby certified that the Initial Study/Mitigated Negative Declaration has been completed in compliance with CEQA and is adequate.
2. It is hereby certified that the Initial Study/Mitigated Negative Declaration has been presented to the Planning Commission, which has reviewed and considered the information and analysis contained therein.

3. It is hereby certified that the Initial Study/Mitigated Negative Declaration reflects the independent judgment of the Planning Commission of the County of Kings.
4. The Planning Commission hereby adopts the Mitigation Monitoring and Reporting Plan for this Project.
5. The Planning Commission authorizes and directs County staff to prepare and file a Notice of Determination within five working days following the date of adoption of this Resolution with the County Clerk of the County of Kings and with the State of California and directs that copies of the Initial Study/Mitigated Negative Declaration be retained at the office of the Kings County Community Development Agency.

IV. SECTION 4: Consistency with the *Kings County General Plan*

1. The proposed Project, as recommended for approval, is consistent with the objectives and the policies of the *2035 Kings County General Plan*, specifically:
 - A. Figure LU-16, the Kings County Land Use Map, of the Land Use Element of the *2035 Kings County General Plan* designates this site as General Agriculture (AG-20).
 - B. Page LU-13, Section III.A.1 of the “Land Use Element” of the *2035 Kings County General Plan* states that agricultural land use designations account for a vast majority of the County’s land use. Included within this land use type are four agricultural type land use designations, Limited Agriculture, General Agriculture 20 Acre Minimum, General Agriculture 40 Acre Minimum, and Exclusive Agriculture. The major differences between the four Agriculture designations relate to minimum parcel size, animal keeping, and agricultural service businesses. These designations preserve land best suited for agriculture, protect land from premature conversion, prevent encroachment of incompatible uses, and establish intensity of agricultural uses in a manner that remains compatible with other uses within the County. The development of agricultural service and produce processing facilities within the Agricultural areas of the County shall develop to County standards.
 - C. Page LU-13, Section III.A.1. of the “Land Use Element” states that the AG-20 designation is applied to rural areas of the county north of Kansas Avenue, excluding the Urban Fringe areas of Hanford and Lemoore, Communities of Armona and Home Garden, the Naval Air Station Lemoore, the Santa Rosa Rancheria Tribal Trust Land, and other small Rural Interface pockets of urban uses. Generally characterized by extensive and intensive agricultural uses, farms within this designation have historically been smaller in size. These areas should remain reserved for commercial agricultural uses because of their high quality soil, natural and manmade waterways, scenic nature with larger concentrations of orchards, vineyards, and valley oak trees.
 - D. Page LU-27, Section IV.B of the “Land Use Element” of the *2035 Kings County General Plan* states that the physical development of agricultural properties is regulated and implemented by the zoning ordinance.
 - E. Page LU-38, LU Goal B7 of the “Land Use Element” of the *2035 Kings County General Plan* states that community benefiting non-agricultural uses remain compatible within the County’s Agriculture Open Space area, and are supported for their continued operation and existence.
 - F. Page LU-38, LU Policy B7.1.3 of the “Land Use Element” of the *2035 Kings County General Plan* states that power generation facilities for commercial markets shall be allowed and regulated through the Conditional Use Permit approval process, and include thermal, wind, and solar photovoltaic electrical generating facilities that produce power.

- G. Page RC-50, Section G, Objective G1.2 of the “Resource Conservation Element” states that the County will promote the development of sustainable and renewable alternative energy sources, including wind, solar, hydroelectric and biomass energy.
- H. Page RC-50, Section G, Policy G1.2.2 of the “Resource Conservation Element” states the County will encourage and support efforts to develop commercial alternative energy sources in lower priority agricultural lands within Kings County, when appropriately sited.
- I. Page RC-51, Section G, Policy G1.2.7 of the “Resource Conservation Element” states the County will require commercial solar and wind energy systems to be reviewed as a conditional use permit pursuant to the procedures of the Kings County Zoning Ordinance.

V. SECTION 5: Consistency with the *Kings County Zoning Ordinance*

- 1. The use complies with the applicable provisions of the ordinance, specifically: The proposed Project, as recommended for approval, is consistent with the *Kings County Zoning Ordinance*.
 - A. Article 4, Section 402.D.21 of the General Agricultural (AG-20) District lists solar photovoltaic electrical generating facilities that commercially produce power for sale, which comply with all local, regional, State, and Federal regulations as a conditional use subject to Kings County Planning Commission approval.
 - B. Article 19, Section 1908.H of the *Kings County Zoning Ordinance* states that the when an application is submitted for a solar photovoltaic electrical facility for commercial sale and distribution of electrical power, the following findings shall be made before granting a conditional use permit:
 - 1) The proposed site is 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 combination thereof.
 - a. Figure RC-13 “Priority Agricultural Land,” in the Resource Conservation Element of the 2035 Kings County General Plan designates the project site as Very Low Priority Land.
 - 2) The proposed site is located within 1 mile of an existing 60-kV or higher utility electrical line.
 - a. An existing 60 KV power line is approximately 0.98 miles south of the project site.
 - 3) Agricultural mitigation is 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 that coincides with the life of the project. Agricultural mitigation on land designed “Medium-High” or higher priority land shall preserve an equivalent amount of agricultural acreage at a ratio of 2:1.
 - a. Agricultural mitigation does not apply because no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be affected by the project. The entire project site is designated as Grazing land by the FMMP.

- 4) The project includes 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.
 - a. The project would provide a reclamation plan and financial assurance acceptable to the County, prior to the issuance of a building permit, which ensures the return of the land to a farmable state after completion of the project life prior to issuance of construction permits.
- 5) The project includes a pest management plan and weed abatement plan to protect adjacent farmland from nuisances and disruption.
 - a. The project would provide a pest management plan and weed abatement plan to protect adjacent farmland from nuisances and disruption prior to issuance of construction permits. The weed abatement plan would ensure that combustible vegetation or agricultural products on and around the project boundary would be actively managed by the project owner or its affiliates during both the construction and operation phases of the project to minimize fire risk. Combustible products would be limited in height or removed through a combination of sheep grazing and mechanical equipment. Herbicides may be applied if warranted by site conditions as specified in the weed abatement plan. Additionally, the project would include fire breaks around the project boundary in the form of interior gravel driveways subject to County standards. The pest management plan would reduce anticipated nuisance impacts to adjacent farmland from pests inhabiting project facilities. Rodenticide and herbicide would be selected and used in a manner that minimizes impacts to protected biological species. 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 qualitative performance goal of nuisance reduction to adjacent farmland.
- 6) The project establishes internal access roads that do not exceed a maximum distance of 300 feet between lanes.
 - a. The project establishes internal access driveways that do not exceed a maximum separation distance of 300 feet from edge of driveway to edge of driveway.
- 7) The project includes a solid waste management plan for site maintenance and disposal of trash and debris.
 - a. The project would provide a solid waste management plan for site maintenance and disposal of trash and debris prior to issuance of construction permits.
- 8) The project site is located on Williamson Act or Farmland Security Zone contracted land, unless it meets the principles of compatibility under Government Code Section 51238.1(a). Otherwise, the contract is proposed for cancellation or is eligible and converts to a Solar Easement.
 - a. The project site is not located on Williamson Act or Farmland Security Zone contracted land.

VI. SECTION 6: Consistency with the *California Land Conservation (Williamson) Act*

- A. The project site is not located within an established agricultural preserve.

VII. SECTION 7: Consistency with the Flood Damage Prevention Ordinance (Chapter 5A of the Kings County Code of Ordinances)

1. The site is within Other Areas Zone X as shown on the National Flood Insurance Program, Flood Insurance Rate Map (FIRM), Map Number 06031C0170C, dated June 16, 2009. There are no development restrictions associated with Other Areas Zone X since these are areas determined to be outside the 0.2 percent annual chance floodplain.

VIII. SECTION 8: Kings County Enterprise Zone

1. The Project site is located within the Kings County Enterprise Zone.

IX. SECTION 9: Consistency with the Kings County Airport Land Use Compatibility Plan

1. The project site is not located within an Airport Compatibility Zone.

X. SECTION 10: Consistency with the Kings County Septic Tank Absorption Field Minimum Requirements

1. The Project site is located within an area requiring engineering for any new septic systems that are installed.

XI. SECTION 11: Conditions of Approval

The Commission adopts the following conditions of approval for CUP Number 14-03:

KINGS COUNTY COMMUNITY DEVELOPMENT AGENCY - PLANNING DIVISION Contact Dan Kassik of the Kings County Community Development Agency at (559) 852-2655 regarding the following requirements:

1. All proposals of the applicant shall be conditions of approval if not mentioned herein.
2. Prior to any ground disturbance, the applicant shall hire a Native American Monitor to monitor the project during all ground disturbing activities during both the construction and decommissioning phases of the project.
3. As per the Kings County Public Health Officer, *Coccidioides immitis*, the fungus that causes valley fever, a serious and potentially long-term respiratory illness, is endemic in the soils of Kings County. Construction activities that disturb soils containing the spores of the fungus can put workers and the nearby public at risk. Effective dust control must be maintained on the job site at all times in order to reduce the risk of valley fever to workers and nearby residents. More information regarding the prevention of work related valley fever is available at www.cdph.ca.gov/programs/hesis/Documents/CocciFact.pdf and <http://www.cdph.ca.gov/programs/ohb/Documents/OccCocci.pdf>. Contact the San Joaquin Valley Air Pollution Control District for more information on dust control techniques.
4. The site plan for the project is approved in concept. However, it is understood that during the actual design of the project that either of the following minor alterations to the site plan may be necessary: 1) structural alterations; and/or 2) alterations to the location of structures. Any minor alterations shall comply with the following requirements:
 - A. The site shall be developed in substantial compliance with the conceptually approved site plan. Development of the site shall be considered substantially consistent with the approved conceptual

site plan if any minor structural alteration is within ten (10) percent of the square footage shown on the conceptually approved site plan or up to a 2,500 square foot increase in structural size, whichever is less, and the minor structural alteration complies with coverage standards.

- B. A minor alteration of the location of a structure shall be considered substantially consistent with the approved conceptual site plan if the new location of the structure complies with all setback requirements for the zone district that the project site is located in.
 - C. Any minor alteration that would make it necessary to modify or change any condition of approval placed on the project would require resubmittal of the application to amend the approval of the Conditional Use Permit.
 - D. No expansion of use, regardless of size, which would increase the projected scale of operations beyond the scope and nature described in this Conditional Use Permit application, will be allowed. Any expansion that is a substantial change from the conceptually approved site plan, will require either an amendment to the approved Conditional Use Permit or a new zoning permit.
5. The development shall comply with all regulations of *Zoning Ordinance No. 269*, with particular reference to the General Agricultural (AG-20) Zone District standards contained in Article 4.
6. Pursuant to Section 1605.B.1.a.1 of the Kings County Zoning Ordinance, No solid fence, wall, hedge or shrub exceeding three (3) feet in height shall be erected, planted or maintained within a required Traffic Safety Visibility Area. Traffic Safety Visibility Area is defined as a space set aside on a lot in which all visual obstructions, such as structures, fences and plantings that inhibit visibility and thus have the potential to cause a hazard to traffic and pedestrian safety are prohibited, as follows:
- a. **Area adjacent to a driveway on any lot** - the Traffic Safety Visibility Area is that area on the street side of a diagonal line connecting points, measured from the intersection of the driveway (located on the property or adjoining parcel) and the street right of way line, twenty (20) feet along the side of the driveway and twenty (20) feet along the street side of a lot.
 - b. **On a corner lot** - the Traffic Safety Visibility Area also includes that area of a corner lot on the street side of a diagonal line connecting points, measured from the property corner where the streets intersect, set back one (1) foot for every one (1) mile per hour of the posted speed limit along each street.
7. Pursuant to Section 1606.C.1 of the *Kings County Zoning Ordinance* unless otherwise stated, the following signs are allowed as a permitted use and do not require a sign permit, site plan review or conditional use permit. All signs shall be located outside of the public right-of-way and shall not be located within a traffic safety visibility area if over three (3) feet in height. Unless a different setback is specified for a particular zone district, the minimum setback distance for all signs over three (3) feet in height shall be ten (10) feet from property lines. Signs shall be permitted only as follows in Agricultural (A) Districts:
- A. Name plates or signs, not directly illuminated, with an aggregate area of not more than forty (40) square feet pertaining to a permitted use, permitted use with site plan review or conditional use conducted on the site.
 - B. Signs exceeding forty (40) square feet in structural area and up to one-hundred-fifty (150) square feet in structural area which are incidental and pertaining to a permitted or conditional use may be permitted subject to a site plan review. Such signs may be located on the same parcel or an adjacent parcel used in conjunction with the permitted or conditional use. Signs exceeding forty (40) square feet in structural area may be illuminated and shall be thirty (30) feet from property lines adjacent to a road.
 - C. One non-illuminated on-site sign real estate sign or subdivision not exceeding thirty-two (32) square feet in structural area with copy on both sides pertaining to the sale, lease, rental or display of a structure or land per Section 1606.B.2.a.
 - D. Directional or information (other than advertising) signs not exceeding two hundred and forty

(240) square feet in area located adjacent to a state highway or a county road within an area limited by points not closer than one-fourth (¼) mile or further than three-fourths (¾) mile from a frontage road turnoff, listing commercial establishments accessible via the frontage road, and further provided that not more than four (4) such signs shall be permitted on each side of the highway or county road.

- E. Signs not exceeding two hundred forty (240) square feet in area located adjacent to a state highway or county road that is classified as an arterial or collector road (including such designations as urban or rural, major or minor) giving direction to or information about Kings County cities, communities, or rural service centers which are accessible by such state highways or county roads or direct routes consisting of combinations thereof, provided that such signs shall be limited to four (4) per city, community or rural service center regardless of the sign's location in this district, and further provided that such signs shall not contain information pertaining to a subdivision of land or private development, commercial establishments or quasi-public developments.
- F. Non-illuminated temporary construction signs in accordance with Section 1606.B.2.c.
- G. Political and Campaign Signs in accordance with Section 1606.B.3.
- H. Placing a sign on property which is restricted by contract under the *California Land Conservation "Williamson" Act of 1965* shall be prohibited, except for temporary signs (pursuant to Section 1606.B.2.a, c, and d), political and campaign signs (pursuant to Section 1606.B.4), and signs incidental to a permitted use, permitted use with site plan review, or conditional use which are consistent with the *Uniform Rules for Agricultural Preserves in Kings County*.

- 8. Exterior lighting shall be hooded so as to be directed only on site.
- 9. A minimum of four (4) off-street parking spaces shall be provided and that such parking shall be installed in accordance with the *Kings County Improvement Standards*.
- 10. All parking areas, aisles, and driveways shall be surfaced and maintained so as to provide a durable, dustless surface. Section 303.G. and Drawing 3036 of the *Kings County Improvement Standards* requires Cutback Asphalt over four (4) inches of Decomposed Granite under the "Rural Alternative." (Note: The Kings County Zoning Administrator hereby reserves the right to require additional improvements to the parking area and driveway if at any time in the future the decomposed granite surface deteriorates and either a dust problem is created due vehicles driving on the decomposed granite surface, or a mud problem is created due to vehicles tracking mud onto County Roads.)
- 11. All open and unlandscaped portions of the lot shall be maintained in good condition, free from weeds, dust, trash and debris.
- 12. The minimum yard requirements from property line to a structure shall be as follows:
 - A. The minimum front yard setback shall be either fifty (50) feet from the front property line or eighty feet from the center of the road, whichever is greater.
 - B. The minimum side yard setback shall be ten (10) feet from the side property line.
 - C. The minimum rear yard setback shall be ten (10) feet from the rear property line.
- 13. The minimum distance between a dwelling unit and another structure shall be ten (10) feet.
- 14. The applicant shall comply with all requirements of, and obtain any necessary permits from, the San Joaquin Valley Air Pollution Control District (SJVAPCD).
- 15. The applicant shall comply with all requirements of, and obtain any necessary permits from, the California

Regional Water Quality Control Board (CRWQCB).

16. The applicant shall comply with all adopted rules and regulations of the Kings County Public Works Department, Fire Department, and the Environmental Health Services Division of the Health Department, and all other local and state regulatory agencies.
17. Pursuant to Section 14-38(d) of the *Kings County Code of Ordinances*, a “Notice of Disclosure and Acknowledgment of Agricultural Land Use Protection and Right to Farm Policies of the County of Kings” shall be signed, notarized, and recorded.
18. Pursuant to Section 66020(d)(1) of the *California Government Code*, the owner is hereby notified that the 90-day approval period in which the applicant may protest the imposition of fees, dedications, reservations, or other exactions, begins on the date that Planning Commission Resolution No. 14-11 is adopted.
19. Sales or use tax may apply to business activities on the site. The applicant may seek written advice regarding the application of tax to your particular business by writing to the nearest State Board of Equalization office. For general information, please call the Board of Equalization at 1-800-400-7115.
20. Prior to the issuance of a building permit, the applicant shall submit a Soil Reclamation Plan for review and approval by Community Development Agency staff. The plan shall contain an analysis of pre-project baseline soil conditions, and shall contain specific measures to restore the soil to its pre-project condition, including removal of all fixtures, equipment, non-agricultural driveways, and restoration of compacted soil. Reclamation shall be completed within six months of the expiration of the use permit.
21. Prior to the issuance of a building permit, the applicant shall post a performance bond or similar instrument to ensure completion of the activities under the Reclamation Plan. Financial assurances for the Reclamation Plan will be reviewed every 5 years by the Kings County Community Development Agency to determine if finances are sufficient to perform reclamation of the Project. The assurance must be adjusted if, during the five year review, finances are determined to be insufficient to perform reclamation of the Project.
22. Additional annual service impact fees affecting the Kings County Fire and Sheriff departments will not be billed to the applicant. Instead, the applicant will be responsible to pay for services rendered by the two departments during times of emergency when services are provided.
23. All mitigation measures in the Initial Study/Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Plan that pertain to CUP No. 14-03 are adopted as conditions of this approval, and included in the Conditional Use Permit.
24. Within eight (8) days following the date of the decision of the Kings County Planning Commission, the decision may be appealed to the Kings County Board of Supervisors. The appeal shall be filed with the Clerk of the Board of Supervisors.
25. This Conditional Use Permit shall lapse and shall become null and void three (3) years following the date that the Conditional Use Permit became effective, unless prior to the expiration of three (3) years the proposed use has been established. A Conditional Use Permit involving construction shall lapse and shall become null and void three (3) years following the date that the Conditional Use Permit became effective, unless prior to the expiration of three (3) year a building permit is issued by the Building Official and construction is commenced and diligently pursued toward completion on the site that was subject of the Conditional Use Permit application.

26. This Conditional Use Permit may be renewed for additional periods of time, if an application (by letter) for renewal of the Conditional Use Permit is filed with the Planning Commission prior to the permit's expiration date.

XII. SECTION 12: Other Agency's Comments, Standards and Regulations

The following departments and agencies have provided comments, standards, and regulations concerning the proposed project. The Planning Commission has no authority to modify, amend, or delete any of these comments, standards, and regulations but lists them here as information to the applicant. Appeals for relief of other agency's standards and regulations must be made through that department's or agency's procedures, not through the Zoning Ordinance procedures. However, the applicant shall comply with all adopted rules and regulations of the Kings County Public Works Department, Fire Department, and the Environmental Health Services Division of the Health Department, and all other local and state regulatory agencies. Failure of the applicant to comply with all adopted standards and regulations of all other local and state regulatory agencies is a violation of this conditional use permit (see Condition No. 15 above) and could result in revocation of this conditional use permit.

KINGS COUNTY COMMUNITY DEVELOPMENT AGENCY - BUILDING DIVISION Contact Darren Verdegaal at the Kings County Community Development Agency - Building Division at (559) 852-2683, regarding the following comments:

1. Building permits must be obtained from the Building Division of the Kings County Community Development Agency for any structures, plumbing, electrical, or mechanical work.
2. Failure to obtain a building permit for any structure, prior to commencing construction, which requires a building permit, will result in the payment of a double fee. Payment of such double fee shall not relieve any person from fully complying with the requirements of Kings County Code of Ordinances, Chapter 5 in the execution of the work or from any other penalties prescribed therein.
3. A minimum of (2) sets of plans and calculations signed by an architect or engineer licensed to practice in the State of California shall be required for the proposed work.
4. All special inspection reports shall be provided to the Building Division prior to requesting a final inspection.
5. The applicant is responsible for contacting the Building Division to request a final inspection of the structures prior to occupying the structures and prior to startup of the operation. No building or structure shall be used or occupied until the Building Division has issued a Certificate of Occupancy.
6. All drive approaches and durable dustless surfaces shall be installed prior to the final inspection and maintained as per County Standards.
7. If the facility will have employees on-site for maintenance of the system an accessible restroom shall be provided and shall comply with Section 1115B of the *California Building Code*. This may be accomplished by either construction of a permanent structure or use of a chemical toilet with a regular maintenance schedule.
8. Pursuant to Section 1129B of the *California Building Code* one (1) van accessible parking space, allowing room for individuals in wheelchairs, on braces or crutches to get in and out of an automobile onto a level surface, suitable for wheeling and walking shall be provided. The parking space shall be 9' x 20' with an 8' wide loading and unloading aisle placed on the side opposite the driver's side. The surfacing of the parking space, loading and unloading aisle and the accessible path from the space to the entrance of the building shall be either asphalt concrete or concrete.

9. The development shall comply with all applicable *Americans with Disability's Act (ADA)* requirements, especially Section 1127B of the *California Building Code*, which states that site development and grading shall be designed to provide access to all entrances and exterior ground-floor exits, and access to normal paths of travel. The accessible route of travel shall be the most practical direct route between accessible building entrances, accessible site facilities and the accessible entrance to the site, including but not limited to access from the accessible parking space to accessible building entrances.
10. A soils report, prepared by a qualified soils engineer, shall be provided to the Building Division prior to issuance of building permits.
11. The facility shall meet the requirements of the State of California Model Water Efficient Landscape Ordinance. Landscape and irrigation plans shall be provided to the Community Development Agency for review and approval prior to building permit issuance.
12. All construction shall conform to the 2013 California Code of Regulations Title 24 which consist of the California Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, and California Energy Code, California Fire Code and California Green Building Standards Code.

KINGS COUNTY PUBLIC WORKS DEPARTMENT: Contact Mike Hawkins of the Kings County Public Works Department at (559) 852-2708 for the following comments:

1. That all requirements hereafter conform to the Kings County Improvement Standards.
2. That all other alternatives to Public Works requirements must be approved by the Kings County Public Works Department.
3. An encroachment permits shall be secured prior to any work within the County right-of-way.
4. Asphalt concrete approaches shall be provided.
5. All drainage shall be contained on-site.
6. All proposals of the applicant are conditions of approval unless otherwise mentioned.
7. Drive approaches shall be constructed at access points which contact a county road and shall be asphalt-concrete over class 2 baserock.
8. Gates at access points shall be indented per the Kings County Zoning Ordinance.
9. Perimeter fencing along county maintained roads shall be placed at 1 foot beyond the of way line. Contact Public Works for right of way information.

KINGS COUNTY FIRE DEPARTMENT: Contact Bill Lynch of the Kings County Fire Department at (559) 852-2880 for the following comments:

1. Rows of solar panels shall not exceed 300 feet in length.
2. There shall be a minimum of 4 feet of separation between rows to allow access for fire suppression personnel.
3. There shall be access roads capable of supporting heavy fire apparatus between the 300 foot sections of solar panels to allow fire apparatus access to the panels so that no portion of any panel is greater than 150

feet from fire suppression access. The access roads shall be maintained and completely surround the solar panels to allow access from any side or end. Access roads shall not be less than 20' in width and provide vertical clearance of not less than 13'6".

4. The solar field shall be kept clear of combustible weeds and debris.
5. The solar fields shall be protected to prevent public access.
6. Fire Department requires a Knox box or other approved system to store and secure keys for any fence or buildings within the property.
7. Applicant shall provide training for fire personnel to be able to interrupt electrical power safely for emergency incidents requiring fire suppression or rescue activities.
8. Architects, Engineers and Designers shall provide detailed plans for review of the project and shall meet with the Fire Marshal in a timely manner upon his request for clarification of any issues.
9. Any fire suppression systems or fire flow requirements will be dependent upon project facilities and review of the project specifications.
10. Solar fields shall comply with Kings County Zoning Ordinance 1908H and the California Fire Code.
11. Fire Department reserves the right to add additional comments or requirements depending upon the hazards involved with the project.

KINGS COUNTY HEALTH DEPARTMENT: Contact Lee Johnson of the Kings County Department of Environmental Health Services at (559) 852-2631 regarding the following comments:

1. If hazardous materials at or above threshold reporting quantities (55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of a gas) will be kept on site, the facility must file a Hazardous Materials Business Plan online at <http://cers.calepa.ca.gov> within 30 days of beginning operations. Hazardous materials are broadly defined, and include fuel, lubricants, antifreeze, motor vehicle batteries, welding gases, paints, solvents, glues, agricultural chemicals, etc. Please contact our office if you require assistance with the online registration process.
2. Any quantities of hazardous wastes generated by the facility operation must be managed in accordance with Federal, State, and local laws and regulations. Hazardous wastes cannot be disposed of into the municipal waste stream or onsite sewage disposal system. The owner/operator must contact our office at with any questions regarding proper management and reporting of any hazardous wastes associated with this operation.

The foregoing Resolution was adopted on a motion by Commissioner _____ and seconded by Commissioner _____, at a regular meeting held on November 3, 2014, by the following vote:

AYES: COMMISSIONERS
NOES: COMMISSIONERS
ABSTAIN: COMMISSIONERS
ABSENT: COMMISSIONERS

KINGS COUNTY PLANNING COMMISSION

Jim Gregory, Chairperson

WITNESS, my hand this ____ day of _____, 2014.

Gregory R. Gatzka
Secretary to the Commission

cc: Kings County Board of Supervisors
Kings County Counsel
Kings County Community Development Agency – Building Division
Kings County Public Works Department
Kings County Fire Department
Kings County Health Department – Division of Environmental Health Services
State of California, Governor’s Office of Planning and Research
Regional Water Quality Control Board
State of California, Department of Fish and Wildlife
San Joaquin Valley Air Pollution Control District
William J. Badasci Trust, Bill Wood, Trustee, P.O. Box 216, Lemoore, CA 93245
ImMODO CA 1, LLC, 3904 West Caldwell Avenue, Visalia, CA 93277

Attachment: Exhibit “A” Mitigation Monitoring and Reporting Plan

EXHIBIT "A"

CONDITIONAL USE PERMIT NO. 14-03 FOR THE LEMOORE 14 PROJECT

Mitigation Monitoring and Reporting Program

Mitigation Monitoring Plan

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
Agricultural Resources:							
<p><u>AG-1:</u> Prior to the issuance of a building permit, the applicant shall submit a Soil Reclamation Plan (Plan) for restoration of the Project site to its pre-project condition, for review and approval by the Planning Division of the Kings County Community Development Agency staff. The Plan shall contain an analysis of pre-project baseline soil conditions at the solar generation facility, and shall contain specific measures to restore the soil to its pre-project condition at the end of the Solar Facility's useful life, including removal of all project fixtures, equipment, and non agricultural driveways, as well as restoration of compacted soil. General preconstruction conditions of the project site shall be photographically documented by the applicant prior to the start of construction of the project. All driveways and other areas compacted during original construction or by equipment used in the decommissioning would be tilled to restore the sub-grade material to a density and depth consistent with its pre-project condition. 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 weed-free mulch spread shall be applied, as needed, to stabilize the soil until germination occurs and young plants establish to facilitate moisture retention in the soil. Reclamation would return the site to the conditions equivalent to those prior to construction and operation of the project. Whether the project area has been restored to pre-construction conditions would be assessed by Kings County staff six months after the initial seeding has occurred. Additional seedings and applications of weed free mulch shall be applied to areas of the project site that have been determined to be unsuccessfully reclaimed (e.g., restored to pre-construction conditions) after six months, until the entire project area has been restored to equivalent conditions prior to construction and operation of the project. All waste shall be disposed of in compliance with applicable law. Waste would go to the Kings Waste and Recycling Authority's Materials Recovery Facility in Hanford, where recyclable materials</p>	<p>Prior to construction And after the solar facility is no longer in service</p>	<p>Prior to construction And after the solar facility is no longer in service</p>	<p>Kings County</p>	<p>Review of Soil Reclamation Plan and</p>			

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
<p>would be removed. All remaining waste would then go to the B-17 Landfill Unit at the Chemical Waste Management Kettleman Hills Facility. The B-17 Landfill unit has an approved capacity of 18.4 million cubic yards. The site capacity used as of March 2012 was 896,171 cubic yards. The site capacity remaining as of March 2012 was 17.5 million cubic yards. Conditional Use Permit No. 04-01, which approved a new non-hazardous-waste landfill designated as Landfill Unit B-17, was approved on May 30, 2006, when the Planning Commission adopted Resolution No. 06-05. The estimated closure date is 2052, depending on actual fill rate. If this facility is not available, another equivalent will be utilized. All waste associated with decommissioning will be disposed of or recycled in accordance with applicable laws. Additionally, the Soil Reclamation Plan shall discuss the retention of any surface water rights. The applicant shall verify the completion of reclamation within 18 months after the solar facility has ceased operating, which would be 12 months after the expiration of the Project use permit, with Planning Division staff. (Please note that Section 2503.05 of the Kings County Zoning Ordinance defines an Abandoned Use as a business or other use which has discontinued operations and/or vacated the site, or abandoned the use, for more than six (6) months.)</p>							
<p>AG-2: Prior to the issuance of a building permit, the applicant shall either post a performance or cash bond, submit a Certificate of Deposit, or submit a letter of credit to ensure completion of the activities under the Soil Reclamation Plan. Every 5 years the Applicant shall submit an updated Engineer's Cost Estimate for financial assurances for the Reclamation Plan, which will be reviewed every 5 years by the Kings County Community Development Agency to determine if finances are sufficient to perform reclamation of the project. The assurance must be adjusted if, during the five-year review, finances are determined to be insufficient to perform reclamation of the project.</p>	<p>Prior to construction and every 5 years thereafter.</p>	<p>Prior to construction and every 5 years thereafter.</p>	<p>Kings County</p>	<p>Financial Review</p>			
Biological Resources:							
<p>BIO - 1 (Avoidance). In order to avoid impacts to Swainson's hawk all onsite project activities will commence after the nesting season has concluded (August 31st). Major construction (i.e. PV panel installation, perimeter fencing, trenching, excavating, or any activity that would require the use of heavy equipment) will occur before</p>	<p>Prior to construction</p>	<p>During construction and closure</p>	<p>Kings County</p>	<p>Field inspection</p>			

CONDITIONAL USE PERMIT NO. 14-03 FOR THE LEMOORE 14 PROJECT
Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
the start of the nesting season (April 1 st).							
BIO - 2 (Pre-construction Surveys). If Project delays occur and construction must be initiated during the nesting season, prior to any construction related activity, preconstruction surveys will be conducted on the project site and adjacent lands within 0.5 mile of the site to identify any nesting pairs of Swainson’s hawks that may be present. These surveys will conform to the requirements of CDFW as presented in <i>Recommended Timing And Methodology For Swainson’s Hawk Nesting Surveys In California’s Central Valley</i> , Swainson’s Hawk Technical Advisory Committee, May 31, 2000 (see Appendix D of Appendix C). If no nesting pairs are found on or within the vicinity of the project site, no further mitigation is required.	Prior to construction	During construction and closure	Kings County	Field inspection			
BIO - 3 (Establish buffers). Should any active nests be discovered in or near proposed construction zones, they shall be avoided by one-quarter mile in accordance with CDFW’s 1994 Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks in the Central Valley. All other nests shall be protected from all construction activities within 50 feet of the nest site. In the event that nests cannot be successfully avoided, the applicant may be required to obtain authorization from CDFW or USFWS. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.	Prior to construction	Monthly monitoring during construction	Kings County	Field Inspection			
BIO - 4 (Avoidance). In order to avoid impacts to all nesting birds from grading and construction, these activities will occur outside of the typical avian nesting season, or between September 1 and January 31.	Prior to construction	During construction and closure	Kings County	Field Inspection			
BIO – 5 (Pre-construction surveys). If, due to Project delays, grading or construction must occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active migratory bird nests within 15 days of these activities.	Prior to construction	During construction and closure	Kings County	Field Inspection			
BIO - 6 (Establish buffers). Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. Typically this buffer is 50 feet. In the event that nests cannot be successfully avoided, the applicant may be required to obtain authorization from	Prior to construction	Monthly monitoring during construction	Kings County	Field Inspection			

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
CDFW or USFWS. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.							
BIO-7 (prevent entrapment). Should any vertical tubes, such as solar mount poles, chain link fencing poles, or any other hollow poles be utilized on site, the vertical pole shall be capped immediately after installation to prevent avian fatalities.	On-Going	On-Going	Kings County	Field Inspection			
BIO-8 (Take Avoidance Surveys). A take avoidance survey will be conducted by a qualified biologist for burrowing owls within 30 days of the onset of construction. This take avoidance survey will be conducted according to methods described in the <i>Staff Report on Burrowing Owl Mitigation</i> (CDFG 2012). All suitable habitats of the site will be covered during this survey.	Within 30 days of the start of construction	During construction	Kings County	Field Inspection			
BIO-9 (Avoidance of Active Nests). If take avoidance surveys are undertaken during the breeding season (February through August) and active nest burrows are located within or near construction zones, a construction-free buffer of 250 feet should be established around all active owl nests. The buffer areas should be enclosed with temporary fencing, and construction equipment and workers should not enter the enclosed setback areas. Buffers should remain in place for the duration of the breeding season. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.	Prior to construction	During construction and closure	Kings County	Field Inspection			
BIO-10 (Passive Relocation of Resident Owls). During the non-breeding season (September through January), resident owls occupying burrows in areas proposed for development may be relocated to alternative habitat. The relocation of resident owls must be conducted according to a relocation plan prepared by a qualified biologist. Passive relocation will be the preferred method of relocation.	Prior to construction	During construction and closure	Kings County	Field Inspection			
BIO-11 (pre-construction surveys). Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any project activity likely to impact the San Joaquin kit fox. These surveys will be conducted in accordance with the USFWS Standard Recommendations. The primary objective is to identify kit fox habitat features (e.g., potential dens and refugia) on the project site and evaluate their use by kit foxes. If an active kit fox den is detected within or immediately adjacent to the area of work, the	Prior to construction	During construction and closure	Kings County	Field Inspection			

CONDITIONAL USE PERMIT NO. 14-03 FOR THE LEMOORE 14 PROJECT

Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
USFWS shall be contacted immediately to determine the best course of action.							
BIO-12 (Avoidance). Should kit fox be found using the site during preconstruction surveys the project will avoid the habitat occupied by kit fox in accordance with the USFWS Standard Recommendations and the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified.	During Construction	On-Going	Kings County	Field Inspection			
<p>BIO-13 (Minimization). Permanent and temporary construction activities and other types of project-related activities should be carried out in a manner that minimizes disturbance to kit foxes. In accordance with the USFWS Standard Recommendations, minimization measures include, but are not limited to:</p> <ul style="list-style-type: none"> • Restriction of project-related vehicle traffic to established roads, construction areas, and other designated areas, with a speed limit no greater than 20 mph; • All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the Service has been consulted. If necessary, and under the direct supervision of a biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped; • Restriction of rodenticide and herbicide use, if rodent control must be conducted, zinc phosphide shall be used because of a proven lower risk to kit fox; and proper disposal of food items and trash. 	On-Going	On-Going	Kings County	Field Inspection			
BIO-14 (Employee Education Program). Prior to the start of construction the applicant will retain a qualified biologist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the San Joaquin kit fox. This training will include a description of the kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status	Prior to Construction	During Construction and closure	Kings County	Field Inspection			

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
of the species and its protection under the endangered species act; and a list of the measures being taken to reduce impacts to the species during project construction and implementation.							
BIO-15 (Mortality Reporting). The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be notified in writing within three working days in case of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.	On-Going	On-Going	Kings County	Field Inspection			
Cultural Resources:							
CUL-1: If, in the course of project construction or operation, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within one hundred (100) feet of the find shall be ceased and the Kings County Community Development Agency shall be notified immediately. The project proponent shall retain a qualified archaeologist to assess the significance of the find and make mitigation recommendations, if warranted. The archaeologist shall document the resources using DPR 523 forms and file said forms with the California Historical Resources Information System (CHRIS). The resources shall be photo-documented and collected by the archaeologist for submittal to the Santa Rosa Rancheria's Cultural and Historical Preservation Department. The archaeologist shall be required to submit to the County for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.	During construction	During construction	Kings County	Field inspection			

CONDITIONAL USE PERMIT NO. 14-03 FOR THE LEMOORE 14 PROJECT
 Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
Hazards and Hazardous Materials:							
<p>HAZ-1: Prior to construction and as a condition of receiving building permits, the constructor and operator of the Project shall implement an Injury and Illness Prevention Program and project-specific health and safety plans. These plans should include but not be limited to the following:</p> <ul style="list-style-type: none"> • Train workers on the applicable evacuation activities to protect workers from potential hazards posed by hazardous wastes; • Compliance with the SJVAPCD’s Regulation VIII and SJVAPCD-approved Dust Control Plan; • Train workers and supervisors on how to recognize symptoms of illness related to Valley Fever; • Provide pre-construction training and instruction regarding requirements for on-site construction pursuant to the approved Dusts Control Plan; • Limit workers’ exposure to outdoor dust in disease-endemic areas; • When soil will be disturbed by heavy equipment or vehicles, wet the soil with water or other permitted soil stabilizer before disturbing it and continuously wet it while digging to keep dust levels down; • Heavy equipment, trucks, and other vehicles generating heavy dust should have enclosed cabs equipped with air filters; and • When exposure to dust is unavoidable, provide NIOSH-approved respiratory protection to all employees. 	Prior to construction	During construction and closure	Kings County	Field inspection			